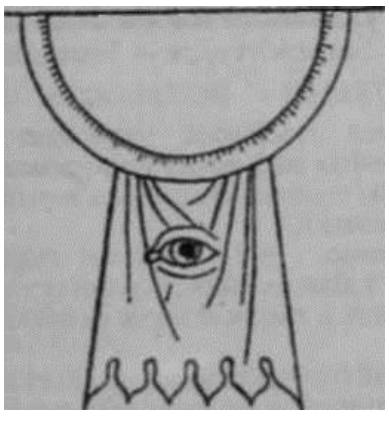
Crimea State Medical University named after S. I. Georgievsky

YCHfATRY

Manual for medical students

Professor Viktor P. Samokhvalov (Ed.)



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Навчальний посібник укладено на основі програм підготовки студентів медичних університетів в Україні, Білорусії і Росії та програм предатестаційних циклів з психіатрії, дитячої психіатрії і наркології.

Представлено всі основні розділи діагностики, диференціальної діагностики, терапії психічних розладів, у тому числі психотерапії, а також історія психіатричної науки.

The manual for students of medical universities is based on the educational university programs for medical students in Ukraine. All basic sections of diagnostics, differential diagnostics, therapy of mental disorders, including psychotherapy, as well as the history of a psychiatric science are submitted.

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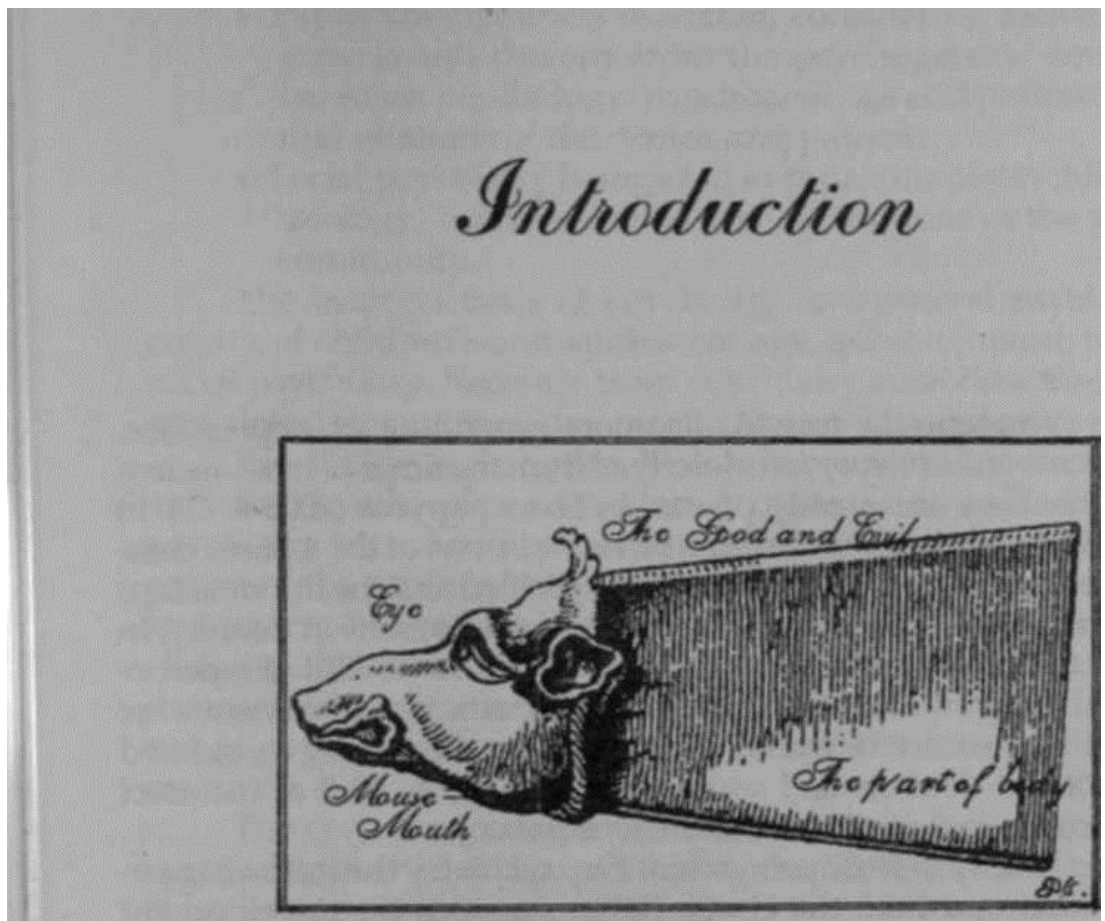
Figures in the book are by Samokhvalov V. P.

Introduction



The symptoms of mental disorders reminding of depressions, schizophrenia and epilepsy, are described from the times of most ancient civilizations. They are already present in Ebers papyrus (2000 B. C). In Vedas (1400 B. C), in particular in Atarva Veda, one of the 4 parts, composing the basic text of Hinduism, it is specified that health develops from 5 elements and 3 liquids, imbalance of which results in insanity. In the classical Chinese text on internal medicine of the «Yellow Emperor» (1000 B. C) the symptoms of insanity, epileptic attacks and dementia are described. The reasons of mental disorders were frequently considered interventions of demons and supernatural forces, as well as incorrect observance of rules, rituals or interdictions (taboo).

In the history of European scientific psychiatry the following periods are distinguished: the Greek-Roman period, the development of the science in the epoch of Renaissance and Enlightenment, and the Golden Age of clinical psychiatry at the end of XIX — beginning of XX century and, at last, the period of the newest history of psychiatry. There are original periods of the development of psychiatry in the East, in particular in China, India, countries of the Near East as well. Conditionally the basic directions of psychiatry depending on soluble scientific and practical tasks can be divided into:

- Clinical (phenomenological, descriptional, that is distinguishing the clinical phenomena), which basic tasks are the distinguishing separate nosological units and differential diagnostics of mental illness;
- Biological, dealing with questions of aetiology and pathogenesis of mental disorders, biological therapy of diseases, in particular psychopharmacology. To the same direction it is

possible to attribute physiological researches at mental disorders, which have resulted in creation of ethological diagnostics and behavioural therapy;

- Psychotherapeutical direction, considering aetiology, pathogenesis and therapy from the psychogenetic point of view, based on psychology, psychoanalysis and philosophy of mutual relations of the doctor and patient;
- Social psychiatry is engaged in problems of psychiatric epidemiology, examination of mutual relations of the patient and community.

The basic sections of psychiatry are: general psychiatry, psychiatry of children's and adolescent age, gerontological, judicial and social psychiatry. Recently from psychiatry such directions, as sexology, defectology, narcology, psychotherapy have grown up.

Psychiatry as a science is closely connected to social, political and ideological systems of society. It quite often resulted in the use of psychiatry with the purpose of repression of dissidents and discrimination of the persons with conditionally abnormal for the given time and society behaviour. Examples of it may be the use of psychiatric clinics in France in the XVII century as shelters for the unemployed, destruction of patients with mental disorders in Nazi Germany and use of psychiatry in political goals in the USSR in 50-70s of the XX century.

The common prevalence of mental disorders achieves 20 %; it means that every 5-th human during the life requires help of the psychiatrist or psychotherapeutist.

Conditionally all mental disorders can be divided according to the following principles.

The principles of correlation of hereditary factors and environmental factors are:

- Endogenous, that is caused mainly by hereditary factors (some forms of intellectual retardation, Alzheimer's disease); these diseases slightly depend on the influences of environment;
- Exogenous, caused mainly by environmental factors, for example: mental disorders as a result of abusing psychoactive substances, brain traumas, endocrine diseases, brain tumours etc.;
- Multifactors, in aetiology and pathogenesis of which we can find the ratio of endogenous and exogenous factors, for example: schizophrenia, affective disorders, and some neurosis.

Traumatic psychosis **Schizophrenia** **Phenylketonuria**

Fig. **1. The ratio of genetic (G) and environmental factors (E) in aetiology and pathogenesis of some mental disorders.**

A variety of mental disorders can be explained from the position of the most general formula of human genetics:

$$Vf = Ve + Vg + Veg,$$

In formula:Vf — a real variety of disorders (phenotype), Ve — the variety connected to the influence of environment on phenotype, Vg — the variety caused by the genetic reasons, Veg — the variety connected to the influence of environment on genotype. Thus, the contribution of the genetic factors in phenylketonuria phenotype is more considerable than that at traumatic psychoses, and the contribution of the same factors in schizophrenia phenotype is approximately equal to the environmental contribution. Nevertheless a real polymorphism of any mental disease (phenotype) always means the sum of contributions of genotype, influences of environment and influence of environment on genotype.

Another form of division of mental disorders is typological. It is based on the division of disorders on the degree of intensity, connection with stress, degree of personality involvement and influence of mental disorders on behaviour and social functioning. The following is distinguished:

- Boundary disorders. These are mainly neuroses and personality disorders. The majority of these disorders roughly do

not break social functioning and self-consciousness, they are connected to stress, and their symptoms are not expressed.

- Psychoses. Three «large» psychoses, i. e. schizophrenia, epilepsy and affective disorders refer to them. These diseases more often roughly influence the function of self-consciousness, essentially break social functioning, their symptoms, bright and determined, are slightly connected to stress.
- Dementia and the condition of mental retardation. Mental disorders characterized by the underdevelopment or loss of skills of social functioning, learning refer to them. They are not connected to stress, but are caused either by rough damages of the brain or genetic anomalies.

In contrast to somatic and infectious diseases at mental diseases aetiology is frequently insufficiently specified, only separate parts of pathogenesis are known, and treatment strongly depends on individual and psychological features of the person.

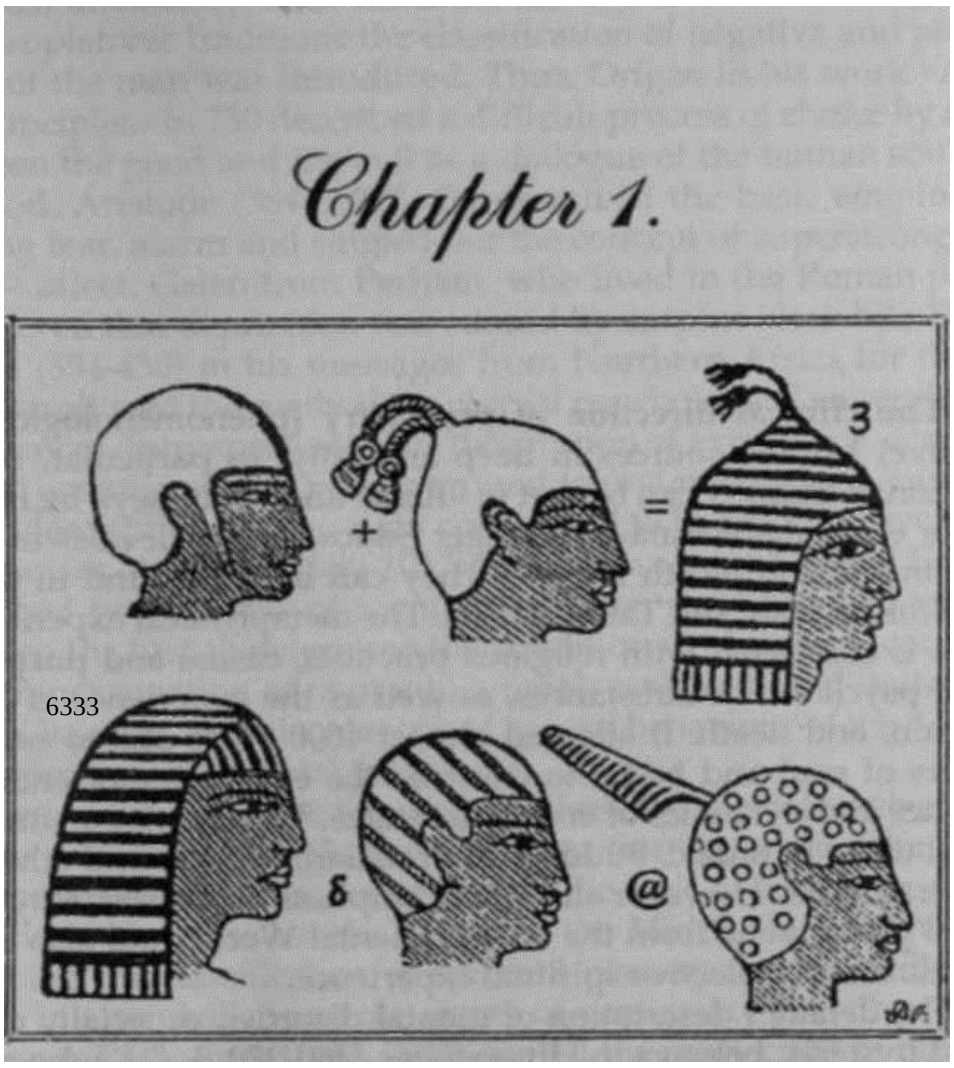
During several centuries and till nowadays the discussion proceeds whether psychiatry is a science or art. In favour of the first point of view it is possible to cite as an example the achievements of biological therapy of mental diseases, in particular psy-chopharmacology, epidemiology and genetics of mental diseases, and also functional morphology of the brain. In favour of the second point of view a significant dependence of effect of therapy and quality of diagnostics on personality of the doctor testifies, that is especially appreciable at psychotherapeutic influence on the patient.

The only general theory, which is applicable in psychiatry, is evolutionary theory. It unites the data of genetics, biochemistry, psy-choanalysis and psychology, ecology and epidemiology, as well as clinical data. According to this theory, the basic mental disorders are forms of adaptation having concrete genetic base, which have arisen in evolution; the frequency of these forms is supported by selective advantages of the persons, who are carriers of pathology.

The basic adaptive reactions which underlie psychoses are a re-action of freezing-flight, which is a biological basis of schizophrenia, a paroxysmal reaction — basis of epilepsy and emotional reactions underlying the biology of affective disorders. All people are subject to these reactions, but the threshold of reactions in everybody differs. Large psychoses (schizophrenia, epilepsy and affective disorders) in combination create all the variety of psychoses, just as features of

personality connected with them in their combination create all the variety of personality types.

Psychiatry uses the data and renders influence on the majority of disciplines, in particular psychology and psychoanalysis, human biology and sociology, anthropology and jurisprudence, history of culture and pedagogy, philosophy and even mathematics and physics. On the whole it uses an empirical scientific method, which is based on direct supervision, applied in all natural sciences, and also on examination and control of a condition, dynamic observation (monitoring), revealing and fixation of phenomena, finding out their connection with others, for example somatic or psychological data (correlation research). The method of indirect evidences is also of importance, which is applied when the phenomenon is still or already absent, but some data allow to establish that it has been or will occur. In psychiatry the modelling is also applied, in particular in history of dramatic psychiatry the doctors simulated experimental psychoses on themselves, carried out tests of substances. Modelling is also applied in experiments on animals that has ethical consequences for psychiatry, as well as for a science in general.



HISTORY OF PSYCHIATRY

The clinical direction of psychiatry (phenomenological, descriptive) has the sources in deep antiquity. In particular, the description of insanity can be met in «Iliad» and «Odyssey» by Homer, eposes — «Mahabharata», «Younger Eddo» and «Kalevala» of India, Scandinavia and North Europe. They can be also found in the Sacred Bible, Koran, and Talmud texts. The metaphysical experience of a man is connected with religious practices, casual and purposeful use of psychoactive substances, as well as the experience of losses, sin, pain, and death. It allowed almost 4000 years ago to establish borders of soul and body, to describe the experience of ending of existence and dynamics of emotional states. The theories of structure of soul differ in Judaic, Buddhism, Christian, Muslim and other religious traditions. However all of them emphasize inseparability of the mental phenomena from the environmental World, and also divide individual and collective spiritual experience.

The detailed description of mental disorder, especially epilepsy and hysteria, belongs to Hippocrates (460-370 B. C), who added to some mental disorders mythological images, for example, he described mania, melancholia. In the Greek mythology mania had the image of insanity, sent by Gods on the people, who had broken the established norms. He distinguished four basic temperaments connected with the prevalence of one of the four liquids: blood, phlegm, black or yellow bile. Hippocrates showed the dependence of mental disorder on the ratio of «liquids»; in particular, he connected melancholy with black bile and stated that hysteria was connected with the moving of the uterus. That point of view was kept down to the XVIII century. Hippocrates described the typology of epilepsy and

offered a dietary treatment of this disease. Plato (427-347 B. C.) distinguished two types of insanity: one — connected with the influence of Gods, another — with disturbances of rational soul. In platonic and neoplatonic traditions the classification of negative and positive souls of the man was introduced. Thus, Origen in his work «About the Principles» in 230 described a difficult process of choice by a man between the good and the evil as a dialogue of the human soul with the God. Aristotle (384-322 B. C.) described the basic emotions including fear, alarm and singled out the concept of superstrong emotion — affect. Galen from Perham, who lived in the Roman period, considered that depression was caused by surplus black bile. St. Augustus (354-430) in his messages from Northern Africa for the first time introduced the method of internal psychological supervision of experiences (introspection). The description of experience, according to St. Augustus, allows people around to understand and empathize it. His descriptions are by right considered to be the first psychological treatises. Avicenna (980-1037) in his «Canon of Medical Science» described two reasons of mental disorders: stupidity and love. He was also the first to determine the condition of obsession, connected with transformation of man into animals and birds and imitation of their behaviour, and also described special behaviour of the doctor at conversation with mental patient.

In medieval Europe the states of obsession were described in numerous treatises of scholastics. The classification of disorders had a demonological character depending on the style of behaviour of mental patient. Nevertheless the period of the Middle Ages allowed approaching the classification of spiritual phenomena. In medieval alchemy in a symbolic form the stages of personality growth are fixed. Phillippus Paracelsus (1493-1547) denied the connection of psychosis with heredity, considering that there was a communication between a mineral, star, illness and character, thus, he believed in uniqueness of astrological destiny, which had an effect on uniqueness of pathology. He also offered treatment of mental disorders by chemical preparations, which alchemical properties «sympathetically» correspond to an astrological situation at the moment of birth of a man.

In the epoch of Renaissance the descriptions of emotions at mental disorder appeared. In particular, to Leonardo da Vinci and Michelangelo series of drawings, illustrating the change of facial expression and behaviour at mental and physical sufferings belong. T. Bright (1551-1615) considered already that depression could be caused by psychological factors and illness was directly connected with disorder of mentality. The first classification of mental disorders belongs to F. Platter (1536-1614), who described 23 psychoses in 4 classes connected with the external and internal reasons, in particular with imagination, memory and consciousness. He was the first researcher to separate medicine from philosophy and attribute it to natural sciences. W. Harvey (1578-1637) considered that mental emotional disorders were connected to work of the heart. This «cardiocentric» theory of emotions as a whole remained central also for Christian theology. P. Zacchia (1584-1659) offered the classification of mental disorders including 3 classes, 15 kinds and 14 versions of diseases; he is also considered the founder of forensic psychiatry. B. de Sauvages (1706-1767) described all mental diseases, 27 kinds all in all, in 3 sections; a symptomatic principle similar to general medicine was the basis of this classification.

The interest to classifications in psychiatry and medicine went in parallel with aspiration to descriptive approach of natural history, which top was the classification by Karl Linnet. The ancestor of the American psychiatry is B. Rush (1745-1813), one of the authors of «The Declaration of Independence^ who published the first textbook of psychiatry in 1812. T. Sutton in 1813 described alcoholic psychosis (delirium tremens), and R.

Gooch in 1829 — puerperal psychosis. In 1882 A. Beuel distinguished progressive paralysis, which was the first independent mental disease having a determined aetiology and pathogenesis, i. e., corresponding to a nosological principle in medicine. R. Krafft-Ebing (1840-1902) described homosexuality and anomalies of sexual behaviour and, thus, introduced sexology and sexopathology into the circle of psychiatry. Nevertheless the first scientific text on sexology belongs to L. Bienville, who in 1771 distinguished nymphomania. S. Korsakoff in 1890 described psychosis at chronic alcoholism accompanied by polyneuritis potatorum and loss of memory.

At the end of XIX — beginning of XX century E. Kraepelin included oligophrenia in the classification of mental diseases, as well as early dementia (dementia praecox), the latter in 1911 was named schizophrenia by E. Bleuler. He was also the first to describe manic-depressive psychosis and paraphrenia. At the beginning of the XX century E. Kraepelin became interested in ethnic shades of psychosis, characteristic of representatives of various peoples. Further his works became a precondition for ethnic psychiatry.

In 1893 the first International Statistical Classification of Diseases and Reasons of Death (ICD 1) was introduced, and consecutively in 1910,1920,1929 ICD 2-4, in 1938 - ICD 5, in 1948,1955 - ICD 6-7 were accepted.

By the beginning of the XX century and till 1970s three basic schools of clinical phenomenology were distinguished, though there were gradations of various schools of psychopathology. The German school was characterized by accent on nosological unit, which included syndromes and symptoms. The Russian and then Soviet psychiatrists followed the same point of view. The French school was based mainly on the level of symptoms and syndromes. The American school paid close attention to reactions, including reactions of adaptation.

In 1952 in the USA the original national classification Diagnostic System Manual of Mental Disorders (DSM I) was accepted which differed from the European classifications by the fact that along with the axis of clinical sings there is the axis of social functioning and reactions to stress. In 1968 DSM II, in 1987 - DSM IIIR, in 1993 - DSM IV, in 2000 - DSM IVR were introduced.

In 1965, 1975 in Europe ICD 8 and 9, and in 1989 - ICD 10 were introduced respectively. Their introduction into practice by the states-members of the World Health Organization took place in 1994. In Ukraine the transition to ICD 10 took place in 1999. Nevertheless, along with the aspiration to create uniform clinical viewpoint between Europe and the USA and intentions to unite ICD and DSM, there are opposite attempts to oppose national schools to the uniform system of classification.

The biological direction of psychiatry is based on researches of the connection between physiology and biochemistry of the brain, genetics with the basic mental disorders.

G. Moreu de Tour in 1845 experimentally tested on himself and described psychosis with application of marihuana. G. T. Fechner in 1860 has found out the connection between the intensity of stimulus and touch reaction, which underlay the study of perception in norm and pathology. B. Morel at the end of the XIX century considered as the reason of insanity a hereditary degeneration, which amplifies from generation to generation from a degree of anomaly of person to psychosis and dementia. At the same time Ch. Lombroso described the connection between genius and insanity, assuming, that these are parts of one link. Ch. Darwin asserted that the behaviour, in particular expressions of emotions at mental patients and especially at those with intellectual retardation (microcephalia), was one of the proofs of the origin of man. Photos of patients were given to him by the known English psychiatrist H.

Maudsley. The same point of view was held by neurologist K. Vogt. W. R. White (1870-1937) showed that in description of psychosis it was necessary to integrate neurological, psychiatric and psychoanalytic concepts, *i. e.* psychosis has some measurements. E. Kretschmer in 1924 in his work «Structure of the Body and the Character established the connection of asthenic constitution and schizophrenia, as well as picnic constitution and manic-depressive psychosis. In 1917 J. W. Wager-Jauregg was awarded the Nobel Prize for application of malariotherapy for treatment of progressive paralysis. It was the first and unique prize in the history of science received for the work in the field of therapy of mental diseases. At the beginning of the XX century I. P. Pavlov in a series of works of digression of physiology in psychiatry revealed the connection between the conditional reflexes and formation of pathological thinking. He developed an original psychophysiological classification of types of personality and founded the first physiological theory of psychodynamics. Further works of G. B. Watson in the field of physiology of behaviour resulted in creation of behavioural direction of psychology and psychiatry, and later on — of behaviour therapy of mental disorders. F. Kallman (1938) described the first systemic genetic theory of the development of schizophrenia on the basis of study of similarity of the disease in twins and close relatives. G. Delay and P. Deniker in 1952, as a result of development of the ideas of artificial hibernation, synthesized the first neuroleptic drug — chlorpromazine, from which the psychopharmacological era in psychiatry began. In 1981 R. Sperry was awarded the Nobel Prize for a series of works which showed the importance of interhemispher-ic interactions in the development of mental disorders.

G. Bowlby (1907-1990) discovered the dependence of mental disorders in children on factors of separation and deprivation of maternal love. Further his work underlay the description of norm and phenomenology of love. E. Kandel in the 1980s creates the synthetic theory of connection between psychiatry and neurobiology, studying simple models of influence of training process on the change of neuronal architectonic. Niko Tinbergen\ one of the founders of ethology, in his Nobel speech in 1973 gave the first

' Together **with Konrad Lorenz and Max von Frisch he was awarded** the noble **Prize.**

data about the connection of biology of behaviour (ethology) with the system of dominance and territory. As one of the models he took children autism. In 1977 M Mc. Guire introduced a theoretical model of ethological psychiatry. In 1994 the development of evolutionary psychiatry was postulated (Samokhvalov, 1994), and in 2000 V. Egorov and O. Gilburd outlined the conceptual borders of a new direction — sociobiological psychiatry.

The history of psychotherapeutic direction is closely connected with psychoanalysis.

S. Freud (1856-1939) introduced a psychoanalytic method of treatment of mental disorders, and also proved the significance of the structural, economic and dynamic approach to consciousness and children's sexuality for diagnostics and therapy of neurosis. Before him psychotherapy had only a hypnological method. P. Janet created the concept of psychasthenia and also psychological dissociation, which was applied to the explanation of obsessive-compulsive and dissociative neuroses. A. Adler (1870-1937) in his theories of («vital style», «complex of inferiority» and «man's protest«) described the individual-psychological reasons of the development of mental ill— brj ness. C. Horney psychoanalytically proved neurotic development as fV* a result of social environment. M. Klein and A. Freud in 1930s creat-^ ed a psychoanalytic system of children age. E. Erikson described life ^ cycles as crises of identity and introduced them into psychoanalytic and psychotherapeutic practice. H. Sullivan (1892-1949) created in-* terpersonal theory, according to which the realization of unconscious structures results from the interpersonal communications. C. G. Jung (1975-1961) founded the school of deep psychology. At the description of psychological types (introverts, extroverts) he interpreted the anomalies of personality and neuroses. Psychosis is explained by him as a result of disturbance of individuation and distortion of archetypal comprehension. J. Lacan (1901-1981) introduced the structure of language and metaphors into psychoanalytic study, specifying that language is a model of consciousness and its distortions can be interpreted by an analytical method.

Social psychiatry describes systems of attitude of a society to mental patients, rehabilitation and epidemiology of mental illnesses. The attitude to mental disorders depends on a type of culture. In archaic culture the abnormal behaviour caused fear, sacred tremor, distance or discrimination. In a number of cultures persons with abnormal behaviour became shamans and ~~performed magic rituals of~~

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influence on other patients. The first social ritual of influence on somatic and mental illnesses is a trance-dance of Kalahari Bushmen, in which rhythmic singing and dances exerted the influence on abnormal behaviour. In India and southeast Asia, as well as in the countries of Africa there was always a high tolerance to abnormal behaviour, while in Europe to the period of Middle Ages rigid discrimination in relation to mental patients was accepted. In particular, groups of patients were located on «the fools' ships», which were sent floating around on the rivers of Europe. The patients were subjected to tortures of Inquisition and were burnt on fires, and the first psychiatric clinics reminded of prisons, in which patients were clapped in irons. The first psychiatric establishment is Bethlehem Hospital (Bethlehem) in London, which began to accept mental patients since 1300. P. Pinel (1745-1826) was the first to point out the necessity of distribution of humanistic principles in maintenance and treatment of mental patients. G. Conolly (1794-1866) introduced into psychiatry «a principle of nonrestrain».

In Nazi Germany, to a great extent under the influence of incorrectly interpreted genetic researches, mental patients were subjected to regular destruction. And from the middle of the XX century psychiatry began to be applied with political purposes for the control of dissidence. The reaction on the use of psychiatry as the instrument of violence of government over a person was the works of H. G. Marcuse and F. Szasz, who created an antipsychiatric direction. Antipsychiatrists considered that a psychiatric diagnosis was a form of discrimination of freedom of personality. They called for opening the doors of psychiatric hospitals for «energization of a revolutionary process». Under the influence of antipsychiatry in the majority of countries of the world democratic laws on psychiatry were adopted.

The psychiatric school of the USSR of that time was closely connected to the German school of psychopathology and was represented by two basic groups of researchers: the Moscow group was engaged in large psychoses (both endogenous and exogenous), the Leningrad school — in boundary mental disorders. The founder of the Moscow school is considered to be M. Gurevitch; V. Osipov and V. Gi-larovsky also referred to it, and the founder of the Leningrad school was V. Bekhterev. As a result of the so-called «Pavlov session» of the Soviet Academy of Science in 1952 there was a destruction of the mentioned schools on political motives in connection with accusation in «cosmopolitism». Subsequently «new Moscow» school appeared to be closely connected with the political system, and in future — with discrimination of dissidents. Nevertheless Russian psychiatry has the original contents and history, upon the whole filled with humanistic contents. The first manual on psychiatry with the use of the term «psy-chiatry» offered by the German doctor Johan Reil (1803) was published in Russia by P. Butkovsky in 1834. It was called «Mental Illnesses Stated in Compliance with the Beginnings of the Present Doctrine of Psychiatry in a General, Private and Practical Statement". Probably, it was P. Butkovsky (1801-1844) who was also the ancestor of nosologic direction (A. Dvirsky, S. Yanovsky, 2001). Besides, he was the first in Russia to begin teaching Psychiatry at Kharkov University (1834 — 1844) at the faculty of surgery and mental diseases. Further manuals on psychiatry in Russia were published by P. Malinovsky (1843). Later on, in 1867,1. Balinsky created a separate department of psychiatry of Military-Medical Academy of St.-Petersburg. In 1900 S. Korsakoff published the second complete edition of «The Course of Psychiatry» — at that time one of the most complete manuals on psychiatry. In 1920s-1930s P. Gannushkin systematized the dynamics of psychopathies (abnormal personality), and V. Bekhterev introduced the concept of psychophysics as the mass mental phenomena. These data was anticipated in the dissertation «Physical Factors of Historical Process» (1917) by A.

Chizhevsky at the description of mental epidemics during 2000 years. To the significant phenomena it is possible to refer the publication of the textbook by V. Osipov in 1923 and neurogenetic researches by S. Davidenkov in 1930-40s. Clinical and analytical researches of disturbances of thinking by E. Schevalev in 1920-30s surpassed the best samples of the world science of that time. Works by L. Vygotsky and A. Luria allowed creating the original Russian pathopsychology, which considerably affected the level of diagnostic process in psychiatry. During the Second World War researches of M. Gurevitch and A. Shmar-ian specified the connection of organic lesions and psychopathology and created «brain» psychiatry based on functional and organic morphology. In Korsakoff's clinic and psychiatric clinic of Kazan University at the end of 40s — beginning of 50s one of the first psychosurgical operations at schizophrenia were carried out, in which A. Kornetov took part. The founders of Russian children psychiatry are considered to be G. Sukhareva and V. Kovalev, sexopathology — A. Svyadoshch and G. Vasilchenko, and psychotherapy — B. Karvasarsky.

Ukrainian psychiatry, despite its genetic connection with Soviet and Russian psychiatry, always had an original sounding. Scientific

researches in the field of rehabilitation, therapy, physiology of mental disorders were carried out not only by professional scientists but also by practical doctors of Ukraine. In particular, in 20s-30s of the XX century psychiatric hospitals of Odessa, Kiev, Kharkov, Simferopol, Kherson published their own annual collections of scientific works, had a serious pathomorphological base and carried out rehabilitation programs.

Clinical, biological, social and psychotherapeutic directions in psychiatry have now resulted in the fact that psychiatry has been included in the system of definitive medicine. This medicine is based on results of international clinical randomized placebo-controllable researches of medicinal means. For objectification of a clinical picture in such researches the methods of scale estimation are applied, allowing to compare the results of therapy in different countries and in different patients. Such scales are created for estimation of clinical picture of schizophrenia, affective disorders, neuroses as well as for estimation of social functioning and quality of life of mental patients. However, though it is possible to predict the effect of therapy on any mental disorder, nevertheless psychiatrists specify an important role of psychotherapeutic methods for therapy and rehabilitation.

THE STYLES OF CONTACTS IN PSYCHIATRY

The style of psychiatric conversation differs from structures of conversations between the doctor and the patient in a somatic clinic.

It is possible to distinguish two basic styles of psychiatric conversation:

- Insight-oriented;
- Symptom-oriented.

The insight-oriented style means the intuitive comprehension of experiences of the patient, important for disclosing unconscious processes, protective mechanisms and psychodynamic construction of representation. In this style the nosology has no essential importance, and the main accent is put on the complete understanding of the patient. The insight-oriented style has its own technique, specificity of conversation, strategy and ultimate goal.

Both styles are different measurements with their own rules and techniques; however, if they are applied in relation to one patient, it allows generating a «multidimensional»/ and thus, more complete representation about him.

The symptom-oriented style means recognition of signs, which develop in syndromes and nosological units. The indicated style can be considered as a skill to use interrogation, as a result of which rapport (contact) is established, experiences (symptoms) are revealed, mental status is described, the diagnosis is made, prognosis is estimated, therapy is administered.

A long-term work with the patient means that the indicated techniques are always applied simultaneously, however at different stages — first meeting, in-patient observation (admission, discharge), etc. — they are accentuated differently. For example, during the first

meeting the skill of the doctor to win trust of the patient and intuitively to feel his problems (insight-oriented style) is of greatest significance, but it is not so important to establish the final diagnosis (symptom-oriented style).

Interrogation

At interrogation of the patient the doctor is fixed on the following four questions:

- What... (is bothering you, seems to be the trouble)?
- Where ... (does it hurt)?
- How long ... (has it been bothering you)?
- Why ... (does it occur in patient's opinion)?

In the insight-oriented style of conversation the explanation of the information, received as a result of interrogation, will be carried out in terms of transfer and contratransfer, mechanisms of protection, and also psychodynamics.

In the symptom-oriented style the explanation will be carried out in the terms of symptoms, syndromes, nosology, and differential diagnostics.

Technique of Establishing Contact with the Patient

The insight-oriented technique includes side by side with empathy free associations, interpretation and confrontation.

The symptom-oriented technique is fixed on revealing signs in behaviour, mental functions (consciousness, memory, intelligence, perception, thinking, emotions).

The complete technique of establishing contact looks as follows.

- Record common view about the patient, his constitutional, including deviations in development (regional morphological dysphasias), and behavioural status. At this stage during the first seconds you can already get a notion about sexual belonging, degree of conformity to her/his sexual orientation, age. Further it can be useful for finding out the conformity to real age, constitution (pyknic, normasthenic, asthenic), behaviour (excitation, stupor, inadequacy).
- It is necessary to gain the patient's favour and calm him down. Even if the patient does not consider himself to be ill, visiting the psychiatrist can be morbid to him — in this case usually something or someone forces him to have a consultation. Such confrontation may be used to show that you are on the patient's side, but not on the side of his environment. It is even more important, if the patient is suffering. Distinguish the features of signs of his locomotion, facial expression, posture, gesture, stylistics of attitude to you and territory, his emotional condition and common structure of speech. Try to react to these signs and observe his reaction to your behaviour. If your behaviour is too quiet and you have steadfast gaze, it may cause at a mental patient additional suspicions, and at a depressive one — strengthen anxiety. The behaviour of the doctor should be movable. Display of compassion and empathy. Estimate your empathy, as well as probable misunderstanding or aggression in relation to the patient. Further the analysis of these feelings will help you understand the reasons of successful or unsuccessful therapy, forecast and inaccuracy of diagnostics. React with empathy to represented experiences of the patient. Do not hide the displays of your empathy.

Estimate the level of understanding by the patient of his own problems. It can be complete — and in this case the patient speaks about experiences as painful; incomplete — that is, only some experiences are considered painful by him; or understanding in general is absent. It is important to find those experiences, which even partially are considered painful by the patient: they can be used for work with other experiences, but originally it is better to avoid painful experiences. Depending on

understanding the problems by the patient tell him about therapeutic tasks.
Mention your free associations connected to behaviour, experience or appearance of the patient. Probably, he reminds you of someone or his/her history is similar to that you have already heard somewhere. Maybe, your imagination draws a certain picture. These associations can help to ask the patient more directed questions.
Realization of estimation or interpretation. It is important for the patient to know, what the doctor thinks about his/her experiences. Therefore it is necessary to show him/her the knowledge of these symptoms, to emphasize uniqueness or commonness of these experiences, as well as the opportunity of management of these experiences. Usually it is important to know for the suffering patients that the doctor has the experience of fight with similar suffering, but for resistant and rejected patients it is more important to feel their significance. It is necessary to specify prospects of development of illness and to inspire hope for recovery in the patient and his relatives. • Establishment of dominance in relations. It is important that the doctor, instead of the patient and his relatives or social environment, should manage a therapeutic process. A doctor should realize the balance of roles and strategy in relations as deeply as possible. However, in some cases at this stage it is possible to confront the patient. For example, it is important at illnesses of dependence (alcoholism, drug addiction).

Role and Strategy of the Doctor

The doctor can act in conversation and work with the patient as a dominant, authoritarian figure, as an independent expert, as an empathizing subject or humanistic assistant. Each role assumes concrete personal experience and personality of the doctor, but it is important that he should use all strategies.

An Authoritarian Doctor

Dominance and authoritarity strengthen submission of the patient, but they are frequently important, for example for fast removal of a symptom at the suggestible patient. In this role the doctor simulates the behaviour of the authoritarian father/mother, teacher, specifies the correct and wrong behaviour, establishes rigid terms and restrictions. The authoritarian doctor usually limits the circle of trust to other experts, demonstrating his awareness. At doctor's dominance there is a set of symbols of rank: from a strict nurse up to a starched smock. He usually strictly limits the time of communication with the patient and is accessible to him only in the certain time, for example after his round. Dependent, anxious-hypochondriac and uncertain in themselves patients appreciate him. The authoritarian doctor uses directive speech of the following type: «You must...», «By all means...», «Never do ...». Sometimes this principle is successful at realization of hypnotherapy, but such a doctor irritates sensitive, egocentric and intellectual enough patients, who appreciate democracy.

Doctor-expert

As an independent expert the doctor can act at the moment of diagnostic conversation. In this case he shows that his work with disorders has a research character and he appreciates additional information of other experts. Thus, he keeps away from symptoms of illness, forcing the patient to distance from it. This role is important at the stage of diagnostics proper. The doctor-expert explains and specifies. He uses the expressions of the type: «Most likely, with you it is connected to ...», «To make the final diagnosis we need one more week and an additional research". This tactics is especially important at suspicion of an organic pathology, and also for patients with epilepsy. Doctor-hearer

As an emphatic hearer the doctor only shows or really feels empathy with the patient. It is interesting to him to listen to the patient, a clinical case he regards as an amazing novel. Contact with the patient usually starts with this role. Truly speaking, some patients estimate the doctor as «close» («attentive«) because they do not notice that during the

conversation he falls asleep. Usually such doctor uses only qualifying questions, and does not want to deviate from the line stated by the patient. Such medical tactics is important for estimation of productive experiences, such as delirium and hallucinations.

Doctor-assistant

Being humanistically oriented as an assistant, the doctor shows the value of the patient's experiences, gets on the same step with him and makes him think that basic forces capable to help the patient are not outside but inside him. The doctor considers that patient's experiences contain a creative element, pays attention to the individual feature and uniqueness of personality and destiny of the patient. The doctor does not hesitate to tell him about the similarity of some of his own shocks and experiences with the problems of the patient. He tries to use nondirective expression of the type: «Maybe, sometimes you should avoid it...», «It would be desirable that you have understood me ...». Some patients estimate such doctor as irresolute, uncertain in himself, but upon the whole, patients suffering from neurosis appreciate such an expert.

Role and Strategy of the Patient

A patient can really suffer; he can draw himself into the disease, use it for rental purpose, strengthen, simulate or hide symptoms. At last, the patient may be «difficult».

A Suffering Patient

A real suffering is not necessarily connected with organic damages, the patient with somatoform pain disorders or neurasthenia can suffer not less than with organic damage of a concrete organ. The suffering itself can result in avoiding the patient's associates and shutting himself off or attempts to receive help, which are estimated by the doctor, personnel or relatives as too obsessive. Suffering is frequently described with different completeness, or it is specified by behaviour of the patient, though he does not speak about it. Only the description of pain includes more than forty definitions, for example: «burning», «shooting», «pulsing», etc.; thus each description of pain is important not only for diagnostics, but also for understanding the degree of involving person in suffering. Plunging into Illness

Reasons of plunging into illness as into other internal reality are not only personal features of the patient, but also frightening character of experiences which are impossible to speak about, reaction of associates to these experiences. It is especially noticeable at sexual problems. Plunging into illness can cause the protest, despair of the patient's relatives or to strengthen mutual attachment of the patient and his relatives. Plunging is frequently accompanied by all signs of illness: conversations only about it, submission of all interests to treatment, use of a great number of preparations, some of which are constantly near the patient.

Insincerity

Intensification, imitation or concealment of experiences can be considered as ill-intentioned only injudicial practice; the psychiatrist more often deals with these phenomena as symptoms of disorder. Thus, at induction paranoid, dissociative disorders, and imperative acoustical hallucinations these mechanisms are widely spread.

Any disorder can have advantages, for example: going away from activity, physical disablement, desire to avoid punishment by demonstration of illness. Thus, at one age, symptoms can be masked, at another age and appropriate social group (for example, at military men, office workers) — intensified. The insincerity (lie) is manifested as dissociation between sense of speech and behaviour, between objectively established and stated, between parts of one behaviour, for example: at dissociation between gesture and facial expression, between separate parts of facial expression (false, sad, concealed smile, etc.).

Inadequacy

Inadequacy means discrepancy of reactions, in particular emotional, to concrete simple and complex stimuli. Inadequate skin hyperesthesia can cause as a result inadequate fear for injections; it can be

observed inadequate laughter in the situation of mourning and grief. At estimation of adequacy it is always necessary to take into account culture and social level of the patient. For example, religious feelings can be quite adequate in a religious community, but performance of ritual in other society is regarded as pathological and inadequate. Following universal human values by a man and struggle for them in a totalitarian society seem inadequate, but in a democratic one are normative. A «Difficult» Patient

The concept of a «difficult» patient includes inadequate and unstable estimation of experiences, petulance and unjustified demands from doctors. Relatives of the patient can be «difficult» too. Thus, the father of patient K. at hospitalization of his son at once began to insist on discussion of the question about his son's transfer to a hospice for mentally disabled, rigidly demanding to limit him in everything, though during all the life he constantly indulged the son's whims, and when the latter broke a rule he punished him cruelly. L. insists on indication of the exact term of recovery of his daughter suffering from attacks, demands written guarantees that attacks will not be repeated, otherwise «he is not going to give her this medicine». C. requires the conclusion about a mental condition of the adopted child with the purpose to refuse adoption.

Doctor — Patient

The strategy of interaction of the doctor and the patient can be dynamical and frozen. The doctor can be or become the patient in the process of work with the patient. In this case he either does not notice the patient's symptoms or struggles with them exaggeratedly actively. Thus, the most active fighters with alcoholism are doctors, former alcoholics, but alcoholics themselves inadequately estimate symptoms of alcoholism at associates. The symptoms of depression or hypochondria in the doctor do not allow him to correctly estimate the level of depression of the patient, but result in the fact that he can estimate personal features as «hypomanic». A doctor can see in the patient a figure from the past and empathize for this reason. In this case experiences of the patient is only occasion for experiences of the doctor, and empathy technique turns into egoism.

The patient not always addresses the doctor as the man he waits for help, he sometimes simply searches for attention, support or associates with his family every medical establishment, where any place for him would be found. In these cases the patient can use strategy of the doctor: for example, to be authoritarian, achieving additional inspection. He can gain confidence of personnel, become an expert for himself and associates, studying medical literature and offering advice. Some patients and their relatives communicate with the same doctor for many years, others are in constant search of new therapeutic and diagnostic methods.

It is necessary to remember that all features of interactions of the doctor and the patient influence both diagnostics and therapy. Rigid, but premature diagnosis, «cosmetic» diagnosis, palliative treatment, treatment by mega doses — these and similar features of diagnostics and therapies are frequently connected with subjective relations of the doctor and the patient.

Doctor as a Patient

Certainly, doctors are special patients. They notice symptoms at themselves earlier than others, but struggle with them sometimes inadequately, ignoring a number of symptoms. They frequently do not trust the doctors of other specialties, and are engaged in self-treatment. As a result they get to experts, as a rule, with more severe forms of disorders. The diagnosis of mental disorder is usually repressed by the doctor. They more often than other experts have symptoms of «burning out» and depression. It especially concerns psychiatrists and psychotherapeutists. In other cases the doctor can more precisely look after his condition, but only when he shares his experiences with colleagues.

Child as a Patient

Children at communication behave differently as compared to adults. They frequently refuse to talk to personnel without any motives (elective mutism). It is more preferable to make contacts with children up to six years in the presence of the mother, especially if the child is not capable to part with her and sits on her lap. Joining the conversation is possible through a game or conversation that is pleasant to a child. The teenagers and children over 10 prefer to communicate in private, and guarantees are necessary for them that everything said will «remain between us». Irrespective of age, a child has the right to know what he is prescribed by the doctor and what the doctor expects of him, he also should be warned about hospitalization. Otherwise, all rights of the adult and deontology of conversation with him should be applied to the child.

An Elderly Man as a Patient

The conversation with an elderly man should be carried on in the presence of persons, whose guardianship he is under or whom he lives together with. It is explained by the fact that frequently disorders of memory prevent patient to remember the instructions of the doctor. It is also a problem to collect anamnesis and find out the conformity between somatic symptoms, which are always enough at the age over 60, and signs of mental disorders. It is always necessary to ask about medicines, which the patient takes, as it is known that, for example, a lot of hypotensive drugs potentiate the action of psychotropic drugs, which in turn can cause hypotension.

Unusual Patients

Patients can address the psychiatrist, recounting the committed crimes, imaginary or real. Thus, they express the complaints filled with psychopathological contents. Besides, relatives can address the doctor asking to prescribe medicine for «secret» influence on the patient, for example suffering from alcohol dependence or, in their opinion, too exited, but refusing therapy. In these cases there is a contradiction between Hippocrates' Oath, which is taken by every doctor, and requirements of social environment (family or state). However, in all cases the doctor should remain on the side of his patients, whatever specified the negativeness of their behaviour. There may be patients who speak the language unknown to psychiatrist and associates or whose behaviour reminds of unknown ritual. Usually in such cases for clarifying the situation the additional items of information or experts, interpreters are necessary for the doctor.

Management of Dialogue

Complaints

A special attention should be paid to complaints, as contents, way and form of their statement allow receiving valuable diagnostic information. In relation to complaints open and directed control, and also control of clearing of experiences are applied.

The Open Control

The open control means that you ask the patient to list all his complaints and in detail to listen to him. Sometimes leading questions are supposed which never mean leading the patient to any answer, but only allow him continuing to speak on the theme he began. However, there are some problems in this technique. For example, hypochondriacs can speak about his experiences for hours, thoroughness of thinking forces the patient to linger round details, and supervaluable fixing does not allow to switch quickly to another theme, which disturbs the patient. Therefore, though open technique is patient-centred, i. e. the doctor patiently follows the patient, but a directive one is also accepted. In this case you interrupt the further statements on one theme and ask the question, «What else is bothering you?»

Patient (P): Irritability is disturbing me. Everything irritates: sounds, people, and the necessity to go to work ... Doctor (D): What else is disturbing you?
P. I have not finished yet. Any sounds irritate me: when the wife pesters with questions about my health, sounds of music from Hie son's room ...

D. Wliat else is bothering you apart from irritability? The Directed

Control

In the directed control the doctor asks the patient about those experiences, which, in his opinion, should be. The presumable directed questions arise in doctor at supervision of the patient's behaviour. Such control is necessary when the patient is in lethargy, or hides the experiences. For example, a depressive patient should be asked about suicidal ideas, and the patient, who answers an invisible interlocutor, should be asked whom he answers and whether it is connected to the question of the doctor. It so happens that the answer to the directed questions does not follow, then it is necessary to put the leading questions. For example, the patient suffering from drug dependence but refusing to admit it, can be asked the following questions: how, in his opinion, has the relation of associates changed towards him; what is his progress in studies; are there any changes in sleep. In similar cases you are fixed not on reasons, but on consequences, knowing that any pathology should necessarily be manifested in different mental spheres. Sometimes inquiries about complaints in the past, about interests, hobbies allow to reveal faster the today's experiences. Upon the whole, the directed control includes continuation of the theme, switching logically or even «il-logically» to another theme. Such absence of logic is only external, defined by the doctor's knowledge of the patient's behaviour and his assumptions of the clinical status.

Frequently patients state complaints faster, if the doctor continues to direct them.

P. *I frequently have dizziness during excitement.*
D. And do you want to appear in a safe place faster, when you are worried?
P. But besides, because of this state, I began to be afraid of visiting the unknown places.

Such directed continuation allows specifying the symptom.

P. I have a Ixeadache.
D. WJiere exactly does it hurt?
P. In the temples.
D. *Wlwt kind of pain is it: tightening, pressing, bursting, throbbing?* P. *TJtrobbing.*
D. *Is the headache accompanied by nausea or dizziness? P. Yes, it is.*
D. Is the headache spreading anyzvhere?
P. That's it! It seems, as if it is diffusing all over the body, I feel nausea in the stomach; my fingers and toes are tzuisted.

Such a thalamic character of headache is not predicted by any initial complaints, but it is directedly revealed.

An example of directed technique at patient with suspicion of delusion of reference is given below. His behaviour at home testified to increased suspiciousness, but he refuses to speak about his experiences.

P. Nothing is disturbing me, I am completely healthy.
D. And has anything disturbed you before?
P. *No, nothing. Hie fact is, I had problems with my clavicle last year, and I was operated on.*

D. *How did you stand this pain ?*
P. It was awful, but even more unpleasant ivas the relation of the traumatologists to me. They seemed to strengthen tlte pain on purpose. D. But traumatologists constantly deal with pain, and can other people also irritate you intentionally?
P. It has happened lately. As though everybody has begun to notice me and to discuss my behaviour behind my back. But you see, the time now is such ...

D. Maybe, they wish you good?
P. Nothing of the kind. In such case what do they instigate my daughter far?

At selective silence (by hallucinatory or psychotic reasons) on a direct doctor's question at the directed technique the intermediate conclusion is sometimes required.

D. *Wliy don't you anszoer tlie question about tfa state of your health? P. (is keeping silence)*
D. *Silence usually means that there is no desire to talk. P. (is keeping silence)*
D. But sometimes silence means tliat something or somebody forbids to speak. P. I cannot speak about it. D. But you can simply hint or write P. (is writing) Tliey are already here, (indicating tlie telephone with his finger, meaning interception).

At the directed control a sudden question of the doctor to the patient is possible, or the question externally having no relations to the previous conversation, but which is necessary to ask, proceeding from supervision of the patient's behaviour.

Technique of Clearing

This technique assumes detailed specification of all sides of experience, *L e.*, what cases it spreads to, whether it exists now, how the experience is explained by the patient (as dream, illness, norm, etc.), whether it is connected with other circumstances. Sometimes, clearing results in the fact that the patient himself begins to learn more about all interrelations of his experience.

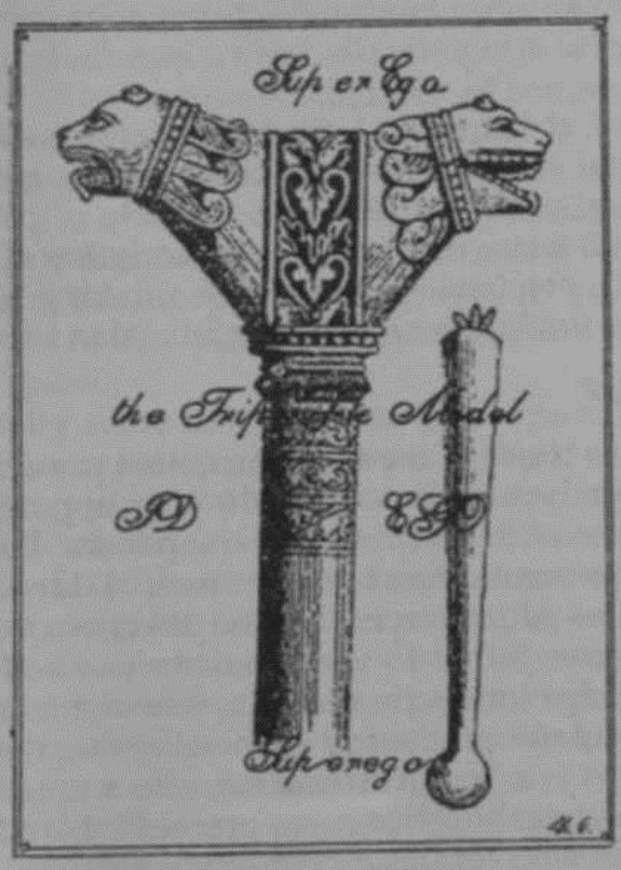
P. *It is quite unclear, why I always have the same nightmare as if everybody has died and I remained absolutely alone?*
D. Do you really have this nightmare every night?
P. No, only when the husband leaves on business.
D. *Did you have such dreams in your childhood?*
P. Yes, I did. By the way, now I have recalled: I had such nightmare after my parents Jtad lost, I was six then.
D. What do you now connect your dream with?
P. Maybe I am afraid to remain alone again.

In the technique of clearing the application of free association is possible.

In this case the doctor asks the patient what analogies or pictures arise in his imagination in connection with his experiences.

P. 1 am afraid to visit this market and city centre in general. D. Can you explain why? P. No, I can't.
D. Have you got any image that prevents you?
P. It is something like a wall which I cannot get over.
D. *Maybe this wall is similar to any other wall from your past, and maybe it is just an obstacle?*
P. About ten years ago I could not overcome the obstacle to answer the teacher's questions, I had a lump in the throat and fear. D. Is this fear similar to tlie fear of being in tlie crowd of people? P. It's quite clear now that it is just the same fear.

Chapter 3.



OBJECTIVIZATION OF MENTAL FUNCTIONS

Judgment about mental condition develops from the analysis of typology and structure of behaviour, speech, results of interrogation and testing of the patient with the help of psychological tests. Actually mental status represents the description of mental functions (consciousness, personality, perception, thinking, memory, motility, will, emotions, intelligence) and their reflection in behaviour.

Behaviour

Behaviour is one of the most important parameters of the mental status, its analysis is sometimes the only opportunity to estimate a clinical picture of the condition of the patient. For example, at diagnostics of the mental condition at small children, deaf and mute persons, and also patients speaking the unknown to us language, the psychiatrist is compelled to use the description of behaviour only and, thus, to judge indirectly the complete mental status. Each person has a unique morphological shape allowing distinguishing him from another person, but everyone has also a unique portrait of behaviour. Researches show that more precisely this portrait maybe described by those who communicate with the patient more often, that is paramedical personnel, which special training on recognition of signs of behaviour presents a separate problem for the psychiatrist. Practice shows that the most exact descriptions of behaviour of patients are those made by nurses working on the posts in psychiatric departments. Their training to notice details is the major problem of the doctor.

Observation of behaviour will be carried out by comparison of the context of experiences and motility in psychology of intentions,

and at a non-experimental research in natural conditions. Human ethology (biology of behaviour) deals with non-experimental researches. Problems of ethology in psychiatric clinic are diagnostics of behaviour and differential diagnostics on the basis of the typological description, explanation of reasons of the given behaviour (environmental or genetic), and also studying the opportunities of updating of behaviour (behavioural therapy). The first descriptions in human ethology belong to K. Lorenz, I. Eibl-Eibesfeldt, and H. Hass. Methodically ethologists aspire to formalize the observed behaviour first of all. For this purpose special glossaries of nonverbal communications are used. At observation of behaviour and training the personnel the general ethological schema is used. An ethogram is the record of consecutive patterns of behaviour on channels of communication. The following refers to motor complexes:

- forcible movements are uncontrollable, arising spontaneously, without the connection with situation; observed at the organic diseases of the brain affecting the striatic system (nucleus caudatus, putamen), as well as at neuroleptic syndrome; the most typical manifestations are choreoathetosis, a torsion spasm;
- involuntary reduction of muscles — spasms; depending on continuous or intermittent character, tonic and clonic spasms are distinguished; by origin cerebral and spinal spasms are distinguished; they are caused by anoxia (for example, during faints), toxic influences (for example, at poisoning with strychnine), psychogenic factors (for example, hysterical spasms); such spasms are characteristic first of all of epilepsy.
- tics — fast spasmodic, stereotyped, automated twitching of separate muscles or their groups; as against forcible movements tics for a while can be suppressed by a strong-willed effort; by origin neurotic and organic tics or of somatogenic origin are distinguished.

Disorder of coordination of movements — ataxia — is observed basically at organic diseases oJLthe central nervous system of different localization. At estimation of behaviour it is important to distinguish its dynamic characteristics.

Rhythmic rocking or sharp movements of the head, trunk are called jactations (Latin *jactacio* — scattering). Jactations are met at neurosis (as consequences of deprivation, especially at children), at intellectual retardation.

Chaotic uncoordinated motor excitation within the limits of bed can be observed at amentia and delirium.

Motor stereotypy (involuntary multiple repetition of monotonous, deprived of sense and caused by nothing movements) is one of the manifestations of mental inertness. It is observed at organic affection of the brain (Pick's disease, some conditions after stroke), the catatonic form of schizophrenia; twilight stupor of consciousness, especially at patients with epilepsy.

Motor acts may have the significance of peculiar manifestation of internal psychological protection of the patient and represent a certain ritual. The ritual motor complex may be simple, complex or have a stereotyped character. Sometimes the ritual motor act occurs despite the will and internal resistance of the patient and, having achieved significant expressiveness, becomes a painful phenomenon.

It is necessary to mark the specific manifestations of the behavioural context arising as a result of deprivation and frequently occurring at disorders and depressions, — onychophagy (the stereotyped biting of nails) and trichotillomania (pulling out the hair).

Pantomimic manifestations as loss of naturalness, harmonicity, grace of movements (loss of grace) refer to symptoms of disorder of motility at schizophrenia. Movements become angular, display the tendency to impulsiveness. Gesticulation and poses get a strange, intense, rigid character. Sometimes the facial expression and gestures are fragmentary, incomplete. At catatonic schizophrenia mental disorders are

manifested mainly in a motor sphere (excitation, stupor, sometimes their alternation). Echomimias -imitation by patients of the facial expression of associates, and echopraxias — imitation of actions and gestures of associates are distinguished. The structure of hebephrenic syndrome includes the disorder of motility as grimacing («gymnastic» contractions of facial muscles, pretentious pantomim-ics, impulsive behaviour).

The description of typology of nonverbal behaviour of the patient is also possible with the help of objectivization of the visual channel of communication which comprises facial expression, posture, gesture, locomotion.

Facial Expression

The facial expression represents the coordinated movements of muscles of the face reflecting various mental conditions of the person. Its studying has the important diagnostic value in psychiatry, the typology of facial expression helps to estimate the mental status more precisely. Variations and the control of facial expression depend on the ethnic belonging. The ability to control means that the patient can feign this or that mimic expression, for example, to show grief not being sad or to hide grief behind a smile. This mask of deceit is recognized by methods of P. Ekman who has established that sincerity is shown in the facial expression as adequacy of changes of motility of the top and the bottom of the face, its right and left halves.

For example, a sincere smile should be accompanied not only by extension and slight raising of the corners of the mouth, but also by wrinkles at the corners of the eyes.

In classical psychiatry the so-called «relax mimic features» are distinguished, reflecting mask-like facial expression, characteristic of chronic course of disease, features of the facial expression during hallucination process and in patients subjected to frequent change of affective conditions, joy and grief.

In the general picture of pathology of facial expression para-mimias are distinguished, *i. e.*, the perverted expressive mimic displays, which are not appropriate to emotions of the patient or the situation, experienced by him.

At organic lesions of the nervous system owing to rigidity, atrophies of muscles or paralysis (parkinsonism, agitated paralysis, neuroleptic syndrome, catatonic stupor) the facial expression is distinguished by weak expressiveness, mask-like expression, constant retaining of the same look. Hyperkinesias of mimic muscles, constraint, torsions and athetotic hyperkinesias *(the syndrome of van Boggard)* are caused by a progressing degeneration of a pale sphere and centres of atrophy in hypothalamus.

At catatonic mutism a specific look and expressions of lips at the patient are marked — the facial expression testifies to the desire to answer the addressed questions, but the desire remains impracticable *(Segle's symptom).*

Usually the typology of the facial expression is described by zones of the face: area of the forehead, area of the upper eyelids, area of the pupil, area of the lower eyelids, area of the face up to the top half of the lip, area of the upper lip, the lower lip, the chin. It is also necessary to take into account features of mimic displays of the area of the top and bottom, right and left halves of the face.

The Area of the Forehead

Configuration of Wrinkles

- Horizontal wrinkles are marked at negative disorder, reduction of the energy potential. They are observed at patients showing psychological loss of something, for example, taste for life. They are clearly expressed at patients in a year after disease.
- Transverse wrinkles — a parameter of overstrain, thoughtfulness. They are also marked at crazy patients.

The Eyebrows

These are a rather mobile in norm mimic component underlining emotional conditions. At children frowned eyebrows are the manifestation of thoughtfulness, definition of the purpose of action. In adult frowned eyebrows — threatening eyebrows — are the display of aggressive-precautionary behaviour. Movements by eyebrows upward — flash — are met at greeting and game, and also at an interest in a subject. In the norm each person at occurrence of a new person has the mimic signal of greeting expressed by the lifting of the eyebrows, however this sign disappears at chronic schizophrenia.

One of the symptoms of paramimia at patients with schizophrenia is the so-called *corrugator-phenotnenon* (m. corrugator super-cilli — the muscle, corrugating the eyebrow). It is caused by muscular twitching in the field of the forehead, mainly contraction of the muscle, corrugating eyebrows. It simulates the facial expression of the condition of enhanced attention.

The Area of Eyelids

The following components of the area of eyelids are described:

- closed eyes,
- blinking, trembling of eyelids (which should be distinguished from winking),
- screwed up eyes,
- open eyes,
- bags under the eyes, connected with pressure of the lower eyelid.

The Area of the Superior Eyelids

For depressive patients *wrinkle ofWeragut* is characteristic. It is composed of the following elements: a wrinkle of the superior eyelid and quite often the eyebrow on the border of the internal and middle third is pulled up and forms a corner instead of an arch, giving a mournful expression to the. face.

At neuroses in children the *symptom of Epshtein* is observed: at excitement the superior eyelid does not fall, it gives the expression of fear to the patient's face.

The Area of the Inferior Eyelids

It concerns the context of the unconscious. It varies at somatic pathology. The degree of opening the palpebral fissure may characterize the emotional status — from an interest up to the reserve and aggressive intentions.

The Eye Area

The Pupil

The widening of the pupils is mydriasis (Greek *amydros* — dark, not clear). It may be caused by paralysis of the sphincter of the pupil, oculomotor nerve, spasm of the dilatator of the pupil, injecting medicines (atropine), intoxication (cocaine, chloroform).

Narrowing of the pupils — miosis (Greek *myosis* — reduction) — may be medicamentous (injection of pachycarpini), it is observed at syphilitic diseases of the brain (being a part *oftJie Argile-Robertson syndrome),* at lesion of the cervical department of the sympathetic trunk (paralytic miosis), owing to spasm of the sphincter of the pupil (spastic miosis), at meningitis, multiple sclerosis, intoxication (chronic morphinism, poisoning with opium, bromine), haemorrhage in the area of the pons Varolii.

Mydriasis and disappearance of reaction of the pupils to light may be met at a fit of hysteria and be accompanied by a strong muscular pressure — *Redlich symptom.*

After an epileptic attack the non-uniformity of size of the pupils, lasting within a day, is sometimes observed. It is not marked in the period between attacks, thus differing from stable anisocoria at organic diseases of the brain, and is not met at fits of hysteria.

Frequent change of narrowing and widening of the pupils *(Westfale symptom of anxiety of pupils)* is marked at posttraumatic Parkinson's disease, syphilitic affection of the brain.

At expressed catatonic stupor the symptom of immovability of pupils — *VJestfale-Bumke's symptom* is marked. Pupils periodically extend within some seconds, hours, days. Sometimes pupils thus do not react to light, and there is no accommodation and convergence. *Bumke's symptom* (absence of reaction of pupils to pain, new subject) may be marked at negative and chronic schizophrenia.

H. Hass has established that at heterosexual men at examining photos of women the pupils extend, the same phenomenon is marked at homosexual men at examining photos of men.

The Area of Scleras

Corners of the eyes

Antimongoloid slant — the corner of the eye is lowered — may be observed at patients with mental retardation. The lowered corners of the eyes in combination with a smile are marked at depression — «smiling depression».

Shine of Scleras

The following are distinguished:

- Chizh's symptom — leaden, oily shine of scleras at epilepsy;
- Vasnetsov's eyes — a lot of eye reflection, caused by a plenty of eye liquid; they are marked at manic patients;
- Vrubel's symptom — at the dilated palpebral fissure the double patch of light is closer to the superior eyelid, it is met at twilight state, thyrotoxicosis. In portraits of people M. Vrubel represented the second patch of light similar to that placed on the iris or pupil, on the superior eyelid.

Movements of the Eyes

At some forms of congenital organic pathology of the brain inability to any lateral movements of eyes is marked: at attempts to compensatory turn of the head the eyes violently turn to the opposite direction, movements of the eyes on the vertical remain unchangeable. These signs compose *Kognn syndrome* (the synonym — «congenital partial oculomotor ataxia»).

At patients with hysterical blindness at passive turn of the head the eyeballs are smoothly displaced to the opposite side, and the pupils remain fixed on the doctor's face — *«gaze fixation $ign».*

At encephalitis, Parkinson's disease, owing to treatment by neuroleptics, syndrome Mersiet-1 the tonic spasm of the oculomotor muscles, causing a combined deviation of eyes — oculomotor crisis — is marked. One of schizotaxy symptoms, that is, latent signs of genes of schizophrenia, is the presence of balloting movements of eyeballs at examining a moving pendulum.

Glance

At communication of interlocutors the duration of glance of one of them makes up from 1 up to 10 sec. A glance continuously fixed on the face of the interlocutor more that 5-7 sec. (steadfast gaze) is referred to aggressive-precautionary elements of the facial expression and in combination with other aggressive mimic elements may represent a picture of the latent aggression though the steadfast gaze may also reflect an extreme degree of interest and arise at interest and caring.

At establishing interpersonal mutual relations in the norm, there is an exchange of glances, as a rule. At dialogue the listening interlocutor looks at the speaking one twice more often than when speaks himself. It is known that at approaching the glance is removed. Duration and frequency of glance are directly proportional to distance.

The glance at face and the glance aside are distinguished. Patients with schizophrenia look aside much more often than healthy people and less often fix a glance at the interlocutor. The similar glance is marked at chronic schizophrenia, Kandinsky-Clerambout syndrome.

Fixing a glance at the own body is met at the catatonic syndrome, syndrome of Kandinsky-Clerambout.

Frequent long look into the window or at a light source (photophylia) is a sign of latent depression, it is also found at hypochondriac conditions.

Avoiding the glance at light and preference for darkness (photophobia) are characteristic of posttraumatic conditions, it is usually combined with the increased sensitivity to sounds — hyperacusia.

The surprised examining of oneself in front of the mirror, frequently with palpation of the face is *tlie symptom of«mirror»* — it is found at brain atrophy, especially at Alzheimer's disease. At this disorder special Alzheimer's amazement is also marked which is expressed in such a way that the patient's eyes are widely opened with surprise, his mouth is half-open, blinking is infrequent. It is especially noticeable for those who have not seen the patient for a long time. However, «attraction to mir-rors» and aspiration to scrutinize own image in them are also observed at disorders of autoidentification at dysmorphopsias in teenagers.

Elements of the Mouth Area

The Area of Lips

The lowered corners of the mouth are found at depression.

The lips protruded forward in a tubule — «a lip reflex» — are shown from several seconds till spastic keeping them by the patient for a long time; they are observed at catatonic schizophrenia. At sopor it is possible to mark a distance lips reflex that consists in lip reaction at insignificant movement of the hand near the face of the patient. At the request to smile almost 70 % of patients with schizophrenic defect protrude their lips in a smile.

The bell («mouth of a fish») — the mouth is widely open, the lips are protruded — is quite often shown as a consequence of deprivation, touch isolation, found in patients with narcotism.

At productive semiology in patients with schizophrenia dissociation of facial expressions of the top and bottom of the fare is marked, at negative semiology — the difference between the left and right half of the face.

The unilateral tic of the tongue and lips occurs at hysteria and in the structure of Jule de la Tourette syndrome.

One of the variants of chronic Parkinson's syndrome occurring at treatment by neuroleptics, is the rabbit-Wilnev syndrome. It is characterized by the local extra pyramidal semiology: tremor of the lips with frequency about 5 movements per second, reminding of the movement of rabbit's lips.

At intoxication by lead, other intoxication psychoses the symptom of hair — sensation of hair or thread in the mouth — is described, which is accompanied by constant movement of the lips and tongue of the patient, trying to be released from this alien body.

Rhythmic spasms of the muscles of the tongue and lips, accompanied by smacking and chewing movements, the so-called opercular spasms, occur at affection of the back portion of the inferior frontal gyrus.

Posture

The basis of the organization of posture is the ratio of elements of tension-relaxation of flexors and extensors. Posture can be the marker of alarm, depression, relaxation. Posture consists of the elements of head, shoulders, trunk, legs.

Inability to keep the same pose for a long time is called aka-thisia. The initial manifestations are painful sensations inducing motor activity, and the movements have a secondary, reactive character. The pathogenesis of akathisia is connected with affection of reticular formation of brainstem.

Irresistible acceleration of movement of the trunk forward at walking or after a slight push — propulsion — is observed at Parkinson's disease.

Rhythmic movements of the head forward and backward, accompanied by the similar movements of the trunk and sometimes extension of the hands, — *«salaam» convulsions* (from *«salaam»* — a greeting at Moslems) — are included into the syndrome of children's myoclonic West-epilepsy, observed at an infantile age.

At long treatment by neuroleptics in adults and elderly people a dystonic syndrome develops characterized by inclination, unilateral bending of the top part of the chest, neck and head. Grimacing and athetoid movements in the extremities can also be marked.

The peculiar movements reminding of dolls-puppets are marked at the *Endgelmen syndrome* characterized by a combination of intellectual immaturity with epileptic attacks and violent laughter, grimaces.

At catatonic stupor, deep mental retardation, conditions of defect, marasm the so-called *«embryo posture»* is observed (patients bend legs in hip joints and knee joints and press them as much as possible to the chest, hands cover the knees, the chin is pressed to the knees). *The symptom of «an air pillow»* (a position of the head raised above a pillow for a long time) is also characteristic of catatonic symptom.

To posture complexes of behaviour the motility of legs also refers. The degree of moving legs apart in the area of knees shows the degree of dominance of an individual. Constant movements of the legs are a part *of the Witmaak-Ekbom's syndrome* and refer to a kind of neuroleptic intoxication. Periodically appearing pains, paresthesias, disappearing only during movement (movements have a secondary character) are characteristic. It has synonyms: the syndrome of restless legs, the syndrome of «tireless legs», and «anxiety of shins». This symptom may be included into somatoform disorders and refers to the latent anxiety.

A special form of hysteria is the *Bamberger syndrome* — clonic contractions of muscles of the lower extremities, jumping, dance-like movements occurring on contact of legs with the ground. In children with autism and schizophrenia the phenomena of walking on tiptoes — *"ballet walking** are marked. It is an original regressive symptom marked in babies first hours after birth.

Gesture

Elements of hand motions are included into the pose, but at the same time they compose the system of gesture, which is connected with the emotional condition, mental condition, deprivation. Gesture is the movements by a free hand; interaction with a subject or object is called manipulation.

The pathology in the sphere of gesture may manifest through disorder of accuracy, differentiation of movements. The so-called inervatory apraxia is characterized by disorder of complex and delicate movements, and the disorders usually refer to one extremity or its oart; it is met at neurological diseases.

At kinesthetic apraxia patients cannot move fingers or hand with necessary effort. Movements become inexact, undifferentiated. It is observed at localization of disorders in the area of the anterior and central gyrus.

Involuntary, mannered, slow stereotyped movements of small volume in distal departments of the extremities — atetoid hyperkineses

— are observed at affection of the caudatus body in the area of the nucleus caudatus and putamen. Hysterical hyperkineses are distinguished by pretentiousness of movements, the muscle tone is not strengthened, they arise on stress and disappear in the condition of rest. Cortex hyperkinesis is characterized by clonic spasms and is common for disorders of the motor zone.

Symptom of the motor automatism — movements of the fingers remind of manipulation of small subjects, the rhythmic tremor of the II, III and opposed to them V fingers is marked. The common name is krocidism (Greek — *krokydismos* — pluming wool), it is observed at Parkinson's disease. The synonyms of this motor disorder are *«coins counting sign», «pills rolling sign».*

Stereotyped rhythmic movements of hands — the basic sign of Rett-syndrome — are the disease characteristic of only girls and accompanied by increasing dementia, decrease of a muscular tone. At schizophrenia the *game by fingers,* expressed in the fact that fingers of the hand, being in continuous movement, touch each other.

The monotonous movements simulating the process of taking off something from the body, clothes, blanket, sheet are observed at heavy delirium, amentia.

The juvenile form of paralysis agitans *(Hani's syndrome)* begins, as a rule, with rhythmic shaking in any of the extremities. Mask-like face, bradykinesia, change of bearing, increase of a muscular tone, dysarthria, monotonous speech are characteristic. Morphologically the affection of striopallidum systems, motor cells of the striped body is observed.

Violent grip, «a prehensile reflex», awkwardness of movements of the extremities are observed at affection of the premotor zones of the cerebral cortex. At affection of the frontal lobe *tlie Barm's symptom* may be observed: one of the upper extremities at movement suddenly stiffens motionlessly for some time (the hand opposite to the affected lobe), in some cases after that a convulsive attack is marked.

Observation of natural gestures shows that they may be classified into those directed to the body — typical of depressions and introverts and directed outside — typical of extraverts. At gesticulation frequent pressing of hands to the abdomen is typical of the latent fear, to the chest — of depressions, to the throat — of anxiety. At stress men frequently snatch by a hand at the nose, women — at the breast.

Locomotion

Gait disorder quite often may serve as diagnostic criterion. Disorder of walking is found at hysterical ataxia and is accompanied by weakening of muscular feeling. Alcoholic ataxia is also characterized by disorder of coordination of movements, unstable gait. There can be distinguished:

- a hemiplegic gait — the leg is removed aside and outlines a semicircle (synonyms: «mowing gait», «circulating gait«);
- a «doll» gait (it is observed at Parkinson's disease, at neuroleptic intoxications) — small steps at a direct trunk and absence of synergistic movements by hands;
- a «fox» gait (it is marked at the affection of the frontal lobes of the brain) — putting the feet on one line;
- the gait of «a flying feather» (it is observed at hysteria) — strides, jumps, the patient stops only having come across an obstacle;
- a «senile» gait — small, shuffling steps with insufficiently co-ordinated consensual movements of hands;
- a «sweeping» gait (it is characteristic of hysterical pseudodementia) — the paralysed leg is dragged like a «broom», instead of describing an arch by a toe as at true hemiplegia.

Motor disorders are described, at which patients make movements in a circle. These disorders are met at epileptic circumcisive attacks, which synonym is an epileptic rotation attack. At patients with schizophrenia *the symptom of«dancing dewish»* is described, characterized by fast walking in a circle of small diameter. Paroxysmally occurring violent movements as revolving on its axis are met at *syndrome Mersiet* -2

which is observed at affection of the left parietal area of various aetiology. The locomotion tracks at schizophrenic disorder are characterized by a shuttle character.

At a rough organic pathology of the brain the symptom of imperception of half of the body is marked. During walking the corpus deviates to the side of disorder, and the surrounding subjects seem moving in the opposite side. Original locomotion «moronity» is expressed in inability to smooth writing, swimming training, uncoordinated jumps or angular gait.

Manipulations

Manipulative activity is expressed in movement of the hand during the activity with an object. At taking the test on choosing an object of manipulation heterosexually oriented men primarily more often choose the extended and firm objects, for example, a stick, and women — a rag. At other sexual orientation the choice varies. The initial capture of an object at schizophrenic defect occurs with participation of a hand; at smartening themselves up such patients smooth the head by a hand with the extended fingers. When offered the test with a choice of an object from a closed bag children with delinquent behaviour and a high level of aggression choose sharp firm objects, for example, a nail; children with autism and schizophrenia — plasticine or a rag. Manipulations are conveniently observed during a game activity or art-therapy. Favourite objects of manipulation are kept in children's pockets, but secret manipulation by objects behind the back and in pockets is still more often marked at autistic children and at depressions. Manipulation by fingers *(the symptom of finger game)* is a sign marked both at schizophrenia and deprivation. At epileptic attack and after coma men with manipulations by genital organs, and women — by folds of clothes are frequently found.

Behavioural Communications

Olfactory Communications

Sensitivity to smells is much higher at women in comparison with men and is minimal at boys-teenagers. Smelling food before putting it into the mouth at the age over 3 maybe considered a regressive sign, it occurs in children with phobias and other neuroses. These children frequently sniff at the palms, hair and objects. It is known that at chronic rhinites and other pathology lowering olfactory differentiation, sexual potency at men is reduced. Usually at misophobia, fear of pollution the combination of the increased sensitivity to smells and obsessive aspiration to cleanliness is marked. There is an assumption that aversion of some children by their parents is caused by smell coming from the child owing to illnesses of metabolism. For example, a mouse smell at phenylketonuria is especially distinct.

Tactile Communications

At the loss of opportunities to touch another person we begin to touch ourselves more actively. It is especially appreciable at autism and schizophrenia, and also as a result of deprivation or loss of object of love. Stereotyped autogrooming may result in numerous scratches and excoriations, in particular at intellectual retardation. The abandoned child aspires to embrace parts of his body or toy more often. Thus, frequency of touches to another (an index of love) is a parameter of love but if the person is deprived of opportunities of touches as a result of loss of object of love, he touches his body. In the course of ontogenesis the touch is replaced with a glance, and the person looks at the object of love or attachment more often than at other objects. Hence, avoiding glance indirectly reflects avoidance of tactile communications.

Social Communications

Systems of communication also vary at psychopathology. R. Nesse has noticed that patients with depressions try to keep away from the personnel, but in the process of recovery their distance from nurses decreases. S. Agarkov notices the same features in relation to men with impotency whose individual distance in relation to women after psychotherapy decreases. In hospitals the patients, suffering from schizophrenia, keep a distance from patients with epilepsy, but aspire to be closer to patients with affective disorder. The child with autism aspires to be further from other children and adults, and also from the centre of a room; and a demonstrative, hysterical person, on the contrary, aspires to be closer to others. The concept of demonstration just assumes the performance of some socially non-authorized actions in the presence of other people, *e. g.* demonstrative suicides of alcoholics and hysterics.

Complex Forms of Behaviour

To complex forms the following refer: sleep, food behaviour, agonistic behaviour, territorial and migratory behaviour, domination and hierarchy, sexual behaviour, comfortable and parental behaviour, research behaviour, behaviour of possession and exchange.

Sleep

The description of rhythm and duration of sleep, poses of sleep and sounds of sleep refer to behaviour of sleep. Rhythmic and duration of sleep are distinguished in ontogeny. At small children the duration of sleep is maximal, but it becomes maximal also in a stage of vegetative coma at dementias. Poses of sleep indirectly specify a psychopathological condition. Patients with dementias and in the condition of defect at schizophrenia frequently sleep, having rolled themselves up into an embryo pose and turned to a wall. Children with residual organic damage of the central nervous system more often sleep, having thrown the head back in a decerebration pose. At night epileptic attacks the sleepwalking or changes of the pose according to a «clasp-knife» type is possible: the child sits down, bends and then lies down. Children in a deprivation condition frequently chew in sleep, sometimes the edge of a sheet; bruxism (gnashing by teeth) is also marked in them, in adults it is sometimes combined with nightmares. This variant of the readdressed aggression is characteristic of epilepsy as well. Sounds of sleep (snore) specify not only dynamic breathlessness and morphological features of the nasopharynx, but also the level of latent dominance or needs for its realization. Dominants sleep more loudly than submissive ones. At syndromes of sleepy apnoea on a background of strengthening snore the delay of breath is marked; such chronic conditions result in hypoxia of the brain. Within a day at such patients the increased drowsiness *(Pickivick illness)* is marked.

Food Behaviour

Descriptions of food behaviour include the rhythm of eating, its amount and selectivity, speed of eating. The significant seasonal increase of weight (usually in winter) and preference of carbohydrates in the evening is typical of subdepressions and depressions. At these conditions, as well as at bulimia the absence of feeling of satiety at overeating is possible. Fixing on sweet food promotes the decrease of the level of anxiety. Refusal of solid food and preference of liquid one are regressive symptoms at anorexia and specify the returning to earlier ontogenetic stages of nourishment. To eat inedible (peak), especially frequently chalk, is one of the signs of metabolic disorder of parathyroid glands, however, the same manifestations can be observed both at pregnancy and psychopathological disorders. Absence of appetite after psychogenic experiences specifies high sensitivity to stress.

Speed of eating correlates with the level of affect, therefore at hypomania it is much higher than at depressions. At anxiety speed of eating in the presence of strangers is higher than in loneliness.

Tropholaxis — transfer of food from mouth to mouth — is normative behaviour in relations of mother and child. Sniffing at food by the child at the age up to three and even five is also normative, however, if the sign occurs later, it is considered to be pathological. Children in the state of deprivation, and some patients with dementias hide food debris and accumulate them in store. Accumulation of products at psychoses of the late age is designated as *hoardomania.*

Agonistic Behaviour

The behaviour connected to conflicts, *L e.* aggression, read-dressed aggression and autoaggression, as well as flight which is more often caused by reaction to the latent, suspected or obvious aggression refers to this kind of behaviour. Aggression in person, as well as in all mammals, proceeds in three stages: a) an aggressive-precautionary phase, b) an aggressive-conflict phase, c) an aggressive-contact phase.

Though the person at concealment of his intentions manages to mask the preliminary phases, nevertheless they may be noticed.

To an aggressive-precautionary phase the complex refers, including at least two or more elements of the following: a steadfast look, frequently at the lowered head, chewing movements, increase of the size of the shoulders or rubbing the shoulders, clenching fist, strokes by a hand at parts of the body or object, swinging by hands, «plus» face (lifting the head), disclosing the knees with demonstration of the groin.

To aggressive-conflict elements the following refer: a sudden change of tonality of the voice, use of invectives (insults), reduction of the distance to the source of attack, increase of the speed of movements. This behaviour passes as a result of escalation of aggression into contact aggression. The action directed at the third person (more often at some relative) refers to the readdressed aggression.

A form of ritualization of aggression is a sport competition. Aggressive patterns of behaviour are appreciable also in caring behaviour in men, and submissive, connected with submission, — in women.

The autoaggression is aggression directed at oneself, in extreme manifestation it corresponds to suicide behaviour. As precautionary patterns of autoaggression the following acts: taking sight away, a semi-open mouth, hiding the hands, absence of gesture, «minus» face (lowering the head), increasing distance from the interlocutor, slowness of movements, reduction of distances between the knees. The autoaggression may be expressed in a ritualization form as a tattoo or be manifested in excoriations, self-damages. The low threshold of reaction of flight, for example, at increase of voice, approach, is characteristic of the latent anxiety.

Territory

The territorial behaviour is expressed in geometry of territory which is rendered habitable by a person, in marking the borders of this territory. The individual territory is differentiated, which geometry — individual distance — is a distance occupied at communication by one person in relation to another. This distance is various at different ethnos: it is, for example, less at southerners than at northerners. The given distance varies at psychopathology, for example, at fear and autism it is greater, and at depression — lower than average distance for the given ethnic group. The habitation which degree of protection also varies refers to group territory, for example at delirium of prosecution. Geometry of behaviour may be represented as a track of movements of the person on the territory. Such tracks at patients with deprivation and intellectual or functional defect have a shuttle character, at autism and phobias they are located on the border of the territory, chaotic tracks are marked at catatonic excitation.

The territorial geometry is well reflected in migratory behaviour. The degree of activity of migration and the necessity of movements vary at phobias and delirium. Spontaneous and considered escapes from home are marked in children at school phobias, twilight states of consciousness

and anomalies of character. But the physiological need of movement and changes of places is more characteristic of children than of middle-aged persons. Besides there are ethnic features of migratory behaviour: some peoples, in particular gypsies, have higher migratory activity than, for example, inhabitants of Scandinavia.

Domination and Hierarchy

Social and behavioural ranks in a person not always but more often coincide: domination corresponds to an alpha-rank, submission — to a delta-rank, intermediate ranks (beta- and gamma-) are more dynamical. Presentation of rank in person is carried out;

- with the help of markers of behaviour (at alpha-ranks aggressive-precautionary patterns prevail, at delta — patterns of submission),
- with the help of approaching the source of information or another significant stimulus,
- with the help of demonstration of symbols of prestige (clothes, objects).

Persons with anomalies of personality either do not have true comprehension of the rank, or it is unstable. As a result of any pathology the rank place varies, and the system of domination is amplified or destroyed. In ontogeny the rank of the individual is raised, but in the process of ageing it is lowered, though in a number of cultures gerontocracy exists, *i e.* elderly persons occupy the highest ranks of hierarchy. Social shocks may be considered as a struggle for rank as a result of which there is a change of ranks. Alpha-ranks are most sensitive to stress and feel the necessity of pacifying influences of delta-ranks. Beta-ranks are the least sensitive to stress. The balance of domination and submission inside group provides its stability.

Sexual Behaviour

Features of sexual behaviour are described not only as success of genital contact, but include also typology of caring and all systems of the social relation of sexes, as well as intersexual relations. These systems are connected with heterosexuality, homosexuality and transsexuality. Sexual distinctions in behaviour are found out from the early childhood in stylistics of pose, gesture, facial expression, nonverbal components of speech and practically in all complex forms of behaviour, as well as in the structure of orgasm. Orgasm in men is characterized by peak and it is always connected with ejaculation, in women it has the character of plateau and is connected with contraction of muscles of the small pelvis and internal surface of the hips. The unconscious prohibition of incest is applied not only to parents and children, brothers and sisters, but also to those relatives whom the child grows with. Early puberty is observed at endocrine pathology and in patients, further suffering from schizophrenia. Teenage sexuality is characterized by low differentiation and a significant tendency to homoerotism.

Comfortable Behaviour

To this behaviour putting oneself in order, caring for body, smartening refer. Washing, rubdown, grooming, bathing, pandiculation and yawning refer to comfortable movements. The latter pattern is also considered to be aggressive-precautionary. Pandiculation and yawning are present at generalized epilepsy (grand mal). The grooming movements are accompanied by smoothing out tucks of the clothes at a stranger, taking off hair from the clothes, touching areas of the skin, frequently of a child or a member of the family. Autogrooming is a touch to oneself. Frequency of grooming increases at anxiety and obsessive-compulsive disorders, decreases at dementia. At intellectual insufficiency untidiness increases as a whole. Distortions of sexual behaviour — paraphilia — may be monosymptomatic, but happen in the structure of various mental disorders.

Parental Behaviour

The behaviour describes all the system of communication of parents and children, in particular the exchange of facial expression, gestures, postures, tactile and speech signals. Leaders and idols of a family in interaction with other members of the family make up a family hierarchy. The system of relations includes survey and frequency of touches of the mother to the child, which determine the emotionality of the child, a degree of the system of care of the mother for the child, a degree of openness of the family. In most cases children-idols of the family have an increased tendency to corporal contact with an adult, pressing to him; they aspire to touch his/her hand or cheek, look into the face of the adult more often, eat faster, aspire to manipulate by hands or clothes of the adult. Distortion of parental behaviour is marked at all mental disorders. J.

Research Behaviour

Research behaviour means interest in something new which is shown in the change of orientation, examination, eye contact, dynamics of approach or moving away from the object of interest. Intensification of such behaviour is designated as curiosity or neophilia. Frequently it has a selective character, for example, at delirium when the patient is interested only in menacing stimuli. Avoidance of new contacts is a symptom typical of schizophrenia, schizotypical disorder and schizoid anomalies of the personality. It is connected with hypersensitivity to stress.

Possession and Exchange Behaviour

The behaviour of possession of an object is instinctive and its absence at adults is typical of depression and apathy, and its amplification is marked already in very small children and at absence of exchange it is characteristic of dementias at which patients may accumulate completely unnecessary things. For manic conditions refusal of possession and intensive donation *(the potlach)* are characteristic.

Imitating Behaviour

This is repetition of a nonverbal or verbal appeal, for example, answering a smile by a smile, crying by crying. It is due to the ability to imitate that the pedagogical influence is carried out. Reduced imitation at training is typical of intellectual retardation and disorders of memory. Inadequate strengthening of imitation is peculiar to hebephrenia and induced psychoses.

Game Behaviour

Any form of behaviour may have a game character. The basis of a game is an evolutionally fixed system teaching the norms of this or that behaviour, therefore the distortion in structure of a game and in choice of game objects testifies to the disorder in formation of the appropriate behaviour and to the disorder of communications. For example, at emotionally unstable persons, long before they are middle-aged the uncontrollable affect is marked in game. It is known that the autistic children choose for game not playable objects, for example, stones, spools, sticks.

Some forms of pathology of complex forms of behaviour (instincts) are described in the section of general psychopathology.

Speech and Audial Communication

Diagnostic process in psychiatry is directed at recognition, registration and qualification of mental and behavioural disorders. Thus, both simple and complicated complexes of behaviour, and all features of speech production, its verbal and nonverbal aspects, are studied in indissoluble unity. The speech behaviour, thus, is the major object of researches, and its deep studying allows approaching the understanding

of features of the patient's personality, essence of a subjective picture of psychopathological experiences, correct diagnosis.

General Principles of Speech Diagnostics

Complete notion about speech is given by the linguistic diagnostics representing the unity of the psychopathological approach and the linguistic analysis, including psychosemantic, paralinguistic, psycholinguistic, pragmatic and syntactic aspects. The distinguished additional diagnostic criteria of speech estimation promote more complete and exact diagnostics, facilitate realization of differential diagnostics and are useful at communication with the patient when visual contact is impossible, for example, in telephone conversation or at correspondence.

Psychoseman tics

The semantic aspect of the analysis of speech assumes studying the story of the patient about his past (anamnesis), his story about complaints and experiences, about family and relations with other people. This information is received at putting a set of standard, well known to psychiatrists questions, while using special questionnaires, glossaries.

Special attention should be paid to subjective semantics of painful experiences — to individual sense of arising changes — both in structure of consciousness of the patient, and in the system of his relations with the world. The analysis of speech allows revealing the phenomenon of alexitimia — a special communicative style of patients characterized by difficulty of verbal expression of feelings and painful experiences. It is observed at neurotic, personal disorders.

Paralinguistics

Paralinguistics studies nonverbal factors of speech communication, which participate in transfer of information, bear certain semantic loading — the extralinguistic information.

First minutes of communication with the patient give the psychiatrist an opportunity to estimate:

- social-biological characteristics of speech of the examined patient: age, sex, social status (and their correspondence to appearance and behaviour), dialect, accent;
- spatial characteristics (the location of the speaking person in relation to the hearer, his moving);
- medical characteristics: a state of health as a whole both physical and mental;
- phoniatric aspect: the condition of speech system and vocal apparatus.

Further separate characteristics in their unity are studied in detail because only a complete picture of prosodic features of speech in their dynamics allow to form diagnostic judgments. We give the description of the researched parameters, the characteristics of their changes at psychopathological disorders, their diagnostic value.

Tempo of Speech

Tempo of speech characterizes speed of proceeding of mental processes and is defined by quantity of words uttered in a unit of time (1 minute). On the basis of studying mentally healthy persons the parameter of 60-100 words/minute is accepted as the normal tempo of speech.

- Insignificant acceleration of rate — 100-120 words/minute — is observed at excitation of various kinds, acute emotional experiences, hypomania, the initial stages of alcoholic and toxic intoxication, anxious disorders.
- Significant acceleration — more than 120 words per minute — the same disorders, manic conditions (fuga idearum), agitation, panic disorders.

- Insignificant delay — 40-60 words/minute — asthenic, strong-willed disorders, subdepression, dissimulation of psychotic experiences, organic cerebral affection, intellectual retardation.
- Significant delay — less than 40 words/minute — depressive disorders, overload of psychopathological experiences, substupor, dementia, a severe form of intellectual retardation, qualitative disorders of consciousness, the initial stages of quantitative disorders of consciousness.
- Mutism — a complete absence of speech at various disorders. The character of change of speech tempo (gradual, sharp) is also

taken into account, that emphasizes an affective richness of experiences, their subjective importance, a degree of emotional control.

Loudness of Speech — the Basic Tone

Loudness — the perception of difference in the physical sound intensity of the pronounced sounds determined both subjectively and by physical methods. The normal loudness parameters are accepted to be 50-80 db (at constant background noise up to 10 db).

- Moderate increase — 80-90 db — excitation, mania, significant experiences, slight intoxication, disorders of the personality.
- Substantial increase — 90-110 db — the expressed excitation of various kinds, a manic condition, agitation.
- Shout — over 110 db — the same as in the previous item.
- Moderate decrease — 40-50 db — asthenic disorders, subdepression, obsessive disorders;
- Significant decrease (reduction) — 20-40 db — depressive disorders, absorption in painful (unhealthy) experiences, severe asthenia, substupor;
- Whisper — less than 20 db — deep depression, dissociative behaviour, preciosity at schizophrenia, crazy experiences.

Timbre of Speech

Timbre of speech — dynamics of spectral structure of sounds of the utterance in time, determined both subjectively and by computer sonography. The timbre of speech is defined both by individual physiological features of the vocal apparatus and emotional condition of the patient. The timbre of low frequencies is found more often at depressive and asthenic disorder, of high frequency — at various kinds of excitation, anxious conditions.

Taking into account the character of timbre changes by range and speed, which are estimated in the same way as changes of tone and tempo of speech, is of importance. Presence and expressiveness of overtones — additional formant (maximum of acoustic energy on spectra of sounds) is determined additionally with the purpose of detailed elaboration and specification of the above described frequency characteristics. However, the given analysis is possible only at instrumental diagnostics.

Melody of Speech

Melody of speech is smoothness and harmonicity of spectral dynamics of sound lines, presence of coordination of frequency characteristics. Melody is expressed at depressions. In symptomatology of mental disorders the disturbance and loss of melody that is especially expressed at catatonic, hebephrenic syndromes are of great value, it is typical of anxious disorders and organic cerebral affection.

Intermittence of speech — presence of articulation breaks in the stream of speech without syntactic validity. It is most frequently met at conditions of excitation, anxiety, speech neurosis.

Pauses — presence of breaks during message both syntactically proved and without semantic filling. The duration of pauses is estimated as follows: short pauses — up to 3 seconds, average — 3-7 seconds, long — over 7 seconds. Taking into account the semantics of that moment of utterance in which the pause is revealed is important as the latter may

emphasize the subjective importance of experiences, their emotional colouring.

Filling in Pauses

It is characterized by:

- presence of breaths and expirations, their duration is: short — up to 3 sec, long — more than 3 sec; their character is with pharyngeal compression (the act of breathing at close vocal chords with a special acoustic phenomenon), that is additional characteristics of affective sphere;
- presence of tussiculation, inarticulate sounds, sounds without verbal framing, rhinolalia, interjections (which are signs of microorganic cerebral affection, characterizing the personality of the patient, his emotional sphere);
- laughter with indication of degree of vocalization (soundless, laughter) and adequacy to the context of statement;
- crying with indication of degree of vocalization (soundless, sobbing, groans) and adequacy.

Sounding of Speech

Intonation — a characteristic of speech closely uniting interrelation of features of dynamics (changes) of spectral and time characteristics with semantics of the statement. It specifies the emotional relation of the patient to the stated, places the necessary accents, structures the statement, creating the hierarchy of motives.

Modality — a semantic expression of subjective perception of prosodic characteristics in their unity, determined in the form of emotional condition: intensity, uncertainty, anxiety, feebleness, hopelessness, irritation, disappointment, doubt, indifference.

Psycholinguistics

Psycholinguistic diagnostics is studying the character and features of the speech utterance depending on the features of psychopathological semiology. In language grammars two levels of organization of the utterance are distinguished: superficial and deep grammar structures of the language. The generalized syntactic structures equally acceptable for any language are submitted to few basic rules and have a universal character, turn to various and indefinitely changeable syntactic structures of alive natural languages.

Pragmatics

Pragmatics studies attitudes to sign system of the subjects perceiving and using the given system.

The pragmatic aspect of studying speech of patients is the definition of dependence of pragmatic categories of speech on features of clinical picture at the fixed pragmatic variables: the speaking (patient) — the listening (doctor), the place, time, conversation.

Syntax

Syntactic analysis of speech is studying features of syntactic structure of utterance: syntactic units, syntactic connections and correlations.

The syntactic analysis is applicable for studying both written and oral speech.

Analysis of Written Speech

The studying of written speech of patients in many cases happens to be useful for the clinical physician. Written speech in contrast to colloquial has semantico-syntactical completeness that allows creating more exact and complete notions about separate aspects of experiences. The analysis of written production of patients assumes realization of all described above aspects apart from paralinguistic.

It is also important to make the graphologic analysis: features of handwriting, size of letters, manner of their writing, additional ornaments, explanations, schemes, usage of syntactic means, degrees of pressure upon paper, literacy, accuracy of writing, presence of syntactic mistakes, corrections, style of message. At schizophrenia the phenomena of thematic going away in written speech, stereotypy, neologisms and symbolical design are characteristic. At organic damage the increase of disorganization in the text is marked, the line of letters becomes more and more broken and descends below the initial level. Accuracy with bent to schematization and floridity are typical of patients with epilepsy.

Analysis of Creative Production

Patients may create at the moment of mental disorder, using a creative process for expression of their feelings and experiences, which cannot be expressed in a different way. Creativity may be used for reacting to the feelings of fault, aggression or attraction. Therefore the symbolics of creativity may be used both for differential diagnostics and for therapy (art-therapy).

Fine art. The technique, colour, form and plot of work clearly reflect psychopathological disorders but only in case when they do not meaningly simulate methods borrowed from other patients or artists for whom similar approaches may be an original style. Patients with the experience of parallel ideas, inflows of ideas and formal disorder of thinking frequently use contamination in the drawing, placing one drawing atop another. Such drawings may be observed at schizophrenia. They also sometimes include commenting inscriptions as though a visual image is not enough for transferring all the completeness of experiences. At simple schizophrenia and schizotypical disorder stereotypic drawings or plot can be met. For example, one of our patients during five years drew only one rose daily, using shades of black and dark blue colour, another repeated the same mandala on pages of his copybooks. Patients with depressions frequently apply in painting cold tones: violet, dark blue, blue, and those with manic and expansive conditions — warm tones: red, brown and yellow. The degree of variety of tones reflects the degree of variety of emotional condition. For diagnostics symbolical value of images, their affinity to concrete subculture, for example, rockers, addicts, those having been imprisoned, are of importance. Dynamics of drawing, change of plots in the course of therapy, change of tonality and technique of execution are also important.

Literature. Diaries, poetry, prose also contain a lot of information on a psychopathological condition. With these texts argumentation, fixing on supervaluable ideas, stereotypes and paralogical designs, as well as hallucinating are established.

Pathopsychology

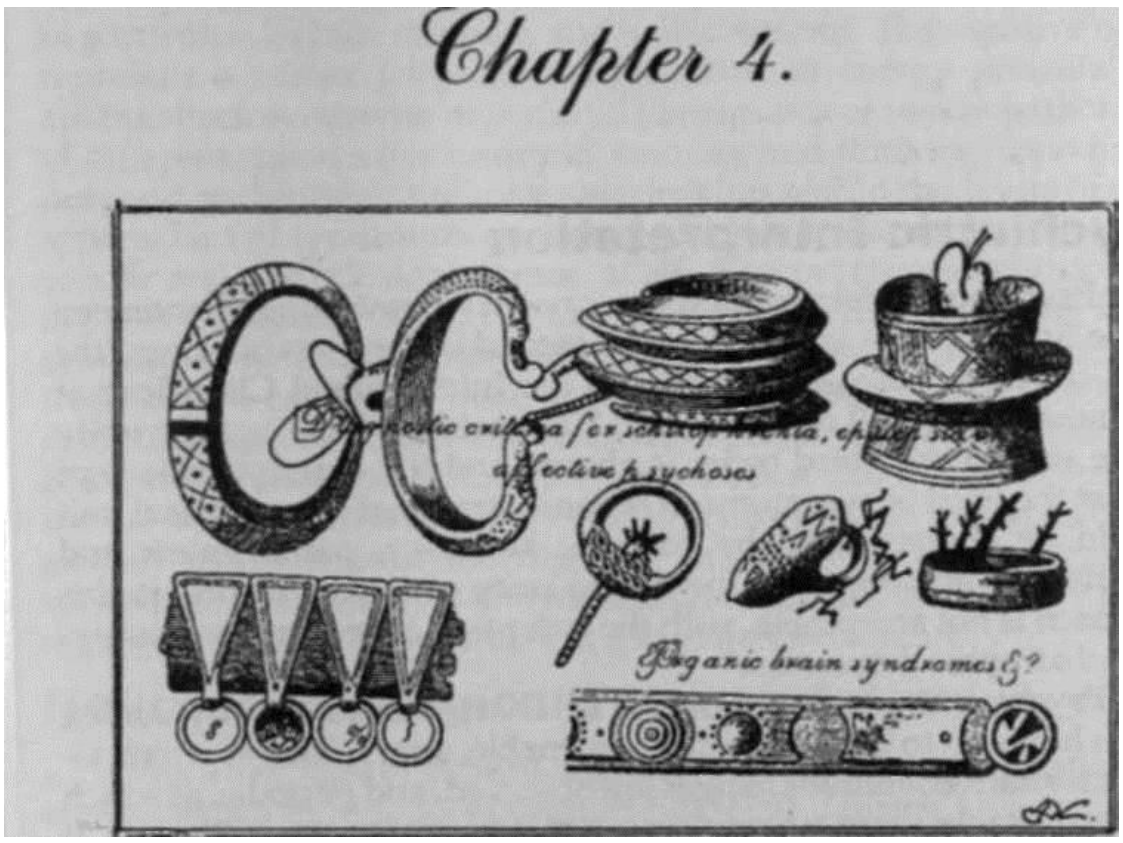
The pathopsyetiological research includes: conversation with a patient, experiment, observation of the patient's behaviour during realization of research, obtaining and analysis of anamnesis, comparison of experimental data to the history of patient's life. Experiments

in modern psychology are understood as the use of any diagnostic procedure for modelling a complete system of cognitive processes, motives and features of personality.

The basic research problems in clinical psychology are the detection of changes of separate mental disorders and revealing pathopsychological syndromes.

A pathopsychological syndrome is understood as pathogeneti-cally interrelated and interconnected commonality of symptoms, signs of mental disorders; to them also a set of behavioral, motivational and cognitive features of mental activity of patients expressed in psychological concepts refer. In pathopsychological syndrome the disturbances of various levels of functioning of the central nervous system are reflected. On the basis of pathopsychological syndromes the features of structure and course of mental processes resulting in clinical manifestations are estimated.

Pathopsychological diagnostics uses a set of experimental techniques - tests for revealing features of functioning of separate spheres of mental activity and integrative formations - temperament, character, properties of personality.



INTERPRETATION OF MENTAL STATUS

Psychiatric Interpretation

Psychiatric interpretation is connected to revealing phenomena of the first order — symptoms, the second order — syndromes, the [l]hird order — nosological units. In the International Classification of Illnesses of the 10 revision (ICD 10) regarding headings the unity of the second and third order is absent, and the description is kept only at the level of symptoms. It is considered that a nosological unit should be characterized by concrete aetiology, pathogenesis and pathological anatomy, but for the majority of mental disorders this approach is not acceptable, with the exception of progressive paralysis and atrophic dementias.

Psychiatric phenomenology is characterized by dynamics, which happens to be continuous, returnable, attack-like, at which after each attack cognitive changes are observed, and periodic, at which between attacks there are no changes of personality or intelligence. It is also accepted to speak about the «axial» semiology peculiar to nosological groups. This semiology is marked in all typological groups of the given nosology. For example, the axial semiology of dementias is marked both at Peak dementia and at vascular dementia, Alzheimer's or Parkinson's disorders, and the axial semiology of schizophrenia is marked both at paranoid and at simple schizophrenia.

It is important for psychiatric interpretation that there were no contradictions between the data of the anamnesis of phenomenology (including from the words of relatives) and the data of actual observation. It is also important how the experiences of the patient influence his behaviour: if the experiences are not reflected in general picture and details of behaviour it is necessary to doubt their reliability. At establishing the diagnosis of epilepsy the combination of actually

observable attack, the data of the anamnesis, neurological examination and EEC is important.

The basic psychiatric interpretation is connected with distinguishing symptoms according to the spheres of psychopathological disorders described in general psychopathology and syndromes. All the syndromes are divided into positive and negative. The positive ones represent a certain plus to the former mental condition; these, in particular, include delirium and hallucinations. The negative ones represent a minus, for example, reduction of energy potential or apathy. Each syndrome may include symptoms of psychopathology of different spheres (for example, memory and thinking, consciousness and perception), but may also develop within the limits of one sphere. Part of syndromes are not specific: depressions may be at alcoholic and narcotic dependence, at affective psychoses, schizophrenia, etc. Only some slight clinical shades allow distinguishing such
syndromes within the framework of several nosological units, but frequently it cannot be done without additional symptoms. Other syndromes can be considered relatively specific, that is, they are met at concrete nosological unit much more often. So, the syndrome of mental automatism is rather specific to schizophrenia though is occasionally met at organic disorders and intoxications, and paroxysmal syndromes are more frequently marked at epilepsy though may be at organic disorders, in particular at Alzheimer's disorder.

Neuropsychological Interpretation

From the point of view of neuropsychology all mental disorders are connected to functional or morphological damage to systems of three functional blocks of the brain:

- the block of regulation of tonus and activity, the level of sleep and wakefulness (a reticular formation, limbic system, me-diobasal parts of the frontal and temporal lobe),
- the block of reception, processing and storage of information,
- the block of regulation, control and programming of mental activity (motor, premotor, prefrontal parts of the frontal cortex).

Among neuropsychological syndromes of the brain affection the following are distinguished:

- syndromes of affection of occipital parts of the cerebral hemispheres of the brain (visual agnosia, modal-specific disturbance of attention, spatial apraxia, amnestic aphasia),
- syndromes of affection of temporal parts (acoustical agnosias, acustico-amnestic aphasia, the acoustical inattention, modal-specific disorders of memory, emotional disturbance and impairment of consciousness),
- syndromes of affection of parietal parts of the cortex (tactile agnosia, afferent motor aphasia, kinesthetic apraxia, syndrome of tactile inattention),
- syndromes of affection of tertiary temporoparietooccipital lobes (constructive apraxia, agraphia, alexia, acalculia, semantic aphasia, amnestic aphasia),
- syndromes of affection of premotor parts of the cortex (kinesthetic apraxia, efferent motor aphasia, dynamic aphasia, the motor inattention, disturbance of the course of intellectual processes),
- syndromes of affection of prefrontal parts of the frontal cortex (prefrontal convexital syndrome, prefrontal basal syndrome, prefrontal medial syndrome),
- syndromes of «the split brain» (the anomia syndrome, syndrome of discopy-disgraphy).

Psychoanalytic Interpretation

This interpretation does not directly correspond to psychiatric. In particular, psychoanalysis considers neurosis not as desadapta-tion but as a special normative form of adaptation. Phenomenologi-cally psychoanalysis

is fixed at a symptom level, which is interpreted as the result of one of the mechanisms of protection, working as a result of delay of development at stages of psychosexuality, mental ontogeny or as a result of regress to certain stages. The psychoanalytic interpretation depends on the fact, within the framework of what analytical school it occurs, but irrespective of school the analyst tries to answer the question, why hallucinations of these contents are experienced by the patient and why his symptom has such contents, for example, obsessions or delirium.

Interpretation of details and the substantial side of a symptom frequently happens to be important for the neurotic, but completely inaccessible to the patient in the condition of psychosis. Nevertheless, psychoanalytic interpretation is an important component of work with any patient as it is based on mental ontogeny and features of interpersonal relations. Thus, for example, the analytical approach to mental disorders in a child is appreciably based on the under

standing of these disorders as «signs» addressed to parents, hence, this disorder is only a part of interpersonal disorder. The basis of wrong, asocial behaviour may be both the aspiration to dominance and the desire of punishment, and the basis of depression — hatred to an introjective image of a parent and all these details of the unconscious implication of a symptom are important not only for any psychotherapy but also for the prognosis of psychodynamics of a symptom. The material for the analysis is symptoms, imaginations, dreams, mistakes, slips of the tongue, systems of communications of the patient and associates. The material assumes the contents including latent desires. To analysed phenomena most frequently transfer and contratransfer, resistance and cathartic phenomena refer.

Ethnic Interpretation

A lot of mental functions depend on racial and cultural features, including religious and ecological ones. Therefore it is necessary to estimate this or that manifestation as «disorder» in view of the given dependences. For example, the degree of frankness of the patient may depend on conformity of his language, belief to the given characteristics of the doctor. Mutism, apparent distortions of the instinctive activity (refusal of food, sexual communications, etc.) may be connected with taboo or fast; the specific feeling of fault, responsibility and perception of the world at a religious person do not allow to use a number of psychotherapeutic influences, for example, hypnosis. The experiences that the died persons stay near those who have lost them, mythology in recognition and perception of the world and in thinking (participation, belief) may be falsely treated by the psychiatrist as disorder of perception and thinking. A number of ethnic syndromes, which are met in one culture in a bright form, in others — in obscure one, are described. Some of them are given below.

Susto-syndrome

It is described in South America. It is characterized by depression, alarm, refusal of food, increasing fear. Subsequently there is a sensation of immersing of the soul into the depths of the Earth, further spiritual bankruptcy follows. It is found at children and teenagers, the induction and imitation of obsession are possible. It is connected to the cult of dead and perceived as obsession by the spirit of dead. The external behaviour reminds of catatonic and depressive stupor.

Whitico

It is described at Indians Kri of Salto. There sharply appears a sensation of physical transformation into the mythological monster *whitico,* who eats people. The behaviour is accompanied by regression and bent to cannibalism. In the first period there is depression. Epidemics of disorder are connected to famine. The victim may originally pay attention to the absence or increase of appetite, gastroenteric problems — these cause fear and psychosis.

Voodoo, zombie

The syndrome refers to the behaviour of «alive dead men». In Africa where the roots of the religion voodoo are traced, died Neanga becomes zombie if the reasons of his death are not found out by the sorcerer. Elements of voodoo are described at dagons, fangi, zair. The analogue of zombie is a dead man — vampire attacking people and animals owing to obsession of persons by the evil spirit. Among Creoles of Haiti there is a secret society of voodoo.

Anfechtung

This is psychosis described in Indians of the province Manitoba. It is manifested as avoidance of social contacts with a sense of guilt for the wrong execution of religious ceremonies. There is a confidence of the

agreement with the devil and obsession by him. There is active aspiration to suicide, symptoms of alarm and depression.

Chisara chisara

This is psychosis at shona in Southern Africa. These are various psychotic symptoms arising, in victim's opinion, under the influence of a witch; there is a sensation of obsession with black force and sharp experience of guilt. Under the influence of illness patients leave for woods and live there. At shona, ebenzi is also described — a condition connected with obsession by witches, but manifested in incoherent and, probably, violent speech and unmotivated acts; sometimes after these attacks there is a peculiar lucid interval, and the attack is described by a victim as obsession by malicious force.

Ghost sickness

This is psychosis spread at Indians apaches and Navaho. At apaches it is manifested during mourning for dead. The victim becomes hypersensitive to sounds and touches which are connected to contact with died or phantoms of died ancestors. The victim is afraid that if he turns back or looks back, the phantom will paralyse him. Sometimes epileptic attacks, cannibalistic imaginations and numerous hypochondriacal complaints occur. At Navaho this psychosis proceeds differently. All symptoms are connected to the spell of witches. Fear arises after nightmares, appetite is lost, difficulty of breath and weakness, sometimes acoustical hallucinations appear. Each of the symptoms points to the «force of a witch».

Gila kena hantu

It is found at Malayans. It is obsession with malicious spirit accompanied by acoustical true and pseudo-hallucinations, attacks of fury, conviction of superhuman physical opportunities.

Hsieh-ping

It is described at Chinese of Taiwan. The disease begins with the period of depression proceeding with classical symptoms. Further there is a sensation of obsession and guidedness, orientation is broken, tremor and glossolalia appear. Visual and acoustical hallucinations are the peak of psychosis.

Mai (de) ojo

The condition of the «evil eye» is described in the Mediterranean region, as well as at Sparush-speaking population of Latin America. It is characterized by disturbance of sleep, crying without apparent reason, diarrhoeas, vomiting. The condition is induced at women and children who are afraid to leave their parents, connected to obsession by malicious eye. A similar condition at the same population is mal puesto at which numerous psychological and somatic conditions proceed on a background of alarm and are connected to obsession or evil eye by a concrete witch.

Mamhepo

It is described at schona of Southern Africa. There is a belief that facial expression is controlled by a witch who turns into snake. The sight becomes stiffened and unblinking.

Phii pob

This is a belief in obsession by spirit at inhabitants of Thailand. Numbness reminding of catatonia, fall without spasms are marked as well as unconscious behaviour, pressure and gnash of teeth, muscle rigidity, inarticulate shouts, sobbing.

Pissu

It is marked at inhabitants of Ceylon. The experience of obsession by spirit (spirits) is associated with the feeling of lump in the stomach, hydrophobia, with impossibility to stand and sit,

sensation of cold in the body, visual and acoustic true and pseudo-hallucinations, dissociated thinking, confusion.

Ruden sinoso

It is obsession by spirit of witches on Saravak. The victim freezes, shivers and constantly aspires to fire, stiffens at fire for a long period, refuses drink and water. Externally the behaviour looks as catatonic.

Sin-byung

It is obsession by spirit of died ancestors in Korea. Originally somatic (psychosomatic) symptoms arise — tremor, anorexia, gastroenteric abnormalities, sleeplessness, anxiety. On this background there are phases of disorientation, acoustic hallucinations.

Tawatl ye sni

This is psychosis at Indians siu (Dakota). There is a sharp feeling of separation and loss, sensation of communication with dead, sense of obsession by the spirit of died, melancholy, ideas about death *and* suicidal ideas, the increased thirst.

Zar

It is described in Iran, Sudan, Egypt and Ethiopia, separate cases — in Central Asia. External attributes of the dissociated behaviour, incoherent speech, statements about obsession by spirits, jumps and impulsive dances are characteristic. Excitation is replaced by apathy and refusal of meal. Impulses to unmotivated murder are described.

Piblokto

This is psychosis at Eskimos, which sometimes refers to Arctic hysteria. The patient (women are more often) begins to shout and tear clothes off. Cries of birds or animals are simulated; the patient runs on ice or rolls on snow, further the condition of amnesia occurs. Psychosis is connected to obsession by spirit of evil. Typologically it reminds of hysterical psychoses. Probably, at the given psychosis features of obsession are attributed to the behaviour of the patient, though he does not experience this condition.

Amok

The syndrome is described in Malaysia, Indonesia, Australia, China, close disorders are also marked in Europe. It is found at depression, epilepsy, and paranoid psychoses. It consists of the following symptoms: melancholy, homicidal actions; it starts suddenly after stress or insult and finishes by a full amnesia.

Mirriri

This syndrome is close to amok, it is described in Africa and Oceania, there are also analogues in Europe. The behaviour is as follows: after accusation of incest the affective narrowing of consciousness, torpor, the aggressive action that is directed not at the offender, but at the imagined object of incest follow. It is a variant of the readdressed aggression.

Lo'u

This behaviour was described in Melanesia. It includes a demonstrative suicide action (a jump from a palm tree) after public accusation of zoophilia. It is accompanied by depression and narrowing of consciousness.

Coro

It is described both at men and women in Northeast Asia, at Negroes of the USA, in India and in single cases of peoples of Europe. It consists in sharp experience of corrugation, retractions into the abdomen

and reduction in size of the penis or large lips of pudendum. It is observed within the framework of dissociative disorders, depressions and schizophrenia. To Coro also the experiences of retraction of the tongue, lips, gullet, anus refer.

Latah

It is observed in Malaysia, Philippines, Western Siberia, Northern America and Africa. It is characterized by the increased suggestibility, propensity to mimic imitation, in particular laughter and crying. Epidemics of the increased suggestibility accompanied by induction of the ideas of poisoning are also close to the given syndrome.

Hiccup illness

This is epidemic dissociative disorder, characteristic of the north of the European part of Russia. Sounds and movements of a stereotyped hiccup associate with getting something into the throat, more often a hair, as a result of the «evil eye». The induction is more often spread among women and frequently results in aggression in relation to an imagined source of the «evil eye».

Porobleno

This is an epidemic dissociative disorder, characteristic of the south and southeast of Ukraine. It proceeds in women as induced depression with dissociative features, and is connected with the action of damage, the evil eye. It is accompanied by avoidance of sexual contacts.

Mental vampirism

These are psychoenergetic experiences as a result of immersing in magic rituals. They are especially characteristic during epidemic enthusiasm about ideas of paranormal phenomena and psychoen-ergy. Patients are convinced of energy exchange between them and their associates, they «feel» and diagnose the internal organs of the associates and their spiritual essence in the form of auras.

The evil eye

The patient (usually women) is convinced that he/she has been overlooked or damned. As a proof some casual object, hair are presented. The reduced mood, somatic symptoms of any chronic diseases are considered as reaction to these actions. As a source of such influence women with unusual behaviour, gipsies, and neighbours are usually chosen. Suggestibility is increased.

Numerous features of similarity of hysterica! epidemics and holistic movements are also described. In the structure of traditional culture the majority of ethnopsychopathological disorders are considered normative and transform as religious rituals. The attitude of actually religious trends to psychiatry is rather different. Thus, in many African countries, in particular Nigeria, the patient is treated simultaneously both by shaman and psychiatrist, thus, the shaman performs the role of psychologist and psychotherapeutist. The Christianity has a negative attitude to the energetic and shaman practice and accents attention on the inseparability of the soul and body. The process of therapy is understood as a way of comprehension of a sin and repentance.

Age Interpretation

All psychopathological and nosological features differ in age. Though in ICD 10 separate sections are devoted to children's and adolescent age, many nosological units may be observed at any age nevertheless. For example, at schizophrenia of children's age it is difficult to distinguish separate types of illness, the affective disorders at teenagers frequently proceed with aggression which conceals depression, there are significant distinctions in organic disorders in childhood, middle and elderly age. The period of age should be taken into account not only at diagnostics, but also at therapy: thus, children and old people should be administered lower doses of psychoactive substances as the

latter cause the syndrome of «congestion» with the minimal disorders of consciousness in them.

For children's age the syndrome of child's autism, syndromes of pathological fears and imaginations, syndrome of oligophrenia, syndrome of mental infantilism and a hyperdynamic syndrome and syndrome of habitual actions are rather specific. For teenagers syndromes of dysmorphomania, anorexia, hebephrenia, and disorders of behaviour are more typical.

For elderly age chronic forms of delirium of «small scope», cognitive and emotional disorders, including depressions, as a result of vascular and atrophic pathology of the brain, actually the symptoms of cognitive deficiency are rather specific.

Up to now it is not clear, whether there are illnesses specific to concrete age, or these are age phases of one disease, for example, of affective disorder, schizophrenia, etc., coloured by age physiology and psychology.

Biological Interpretation

Functional Morphology

The nervous system of the foetus begins to develop at the early stages of the embryonic life, continuing its development in the first years after birth.

From ectoderm the nervous tube is formed, on the third week of the development three initial cerebral vesicles are formed, from which the main parts of the brain develop. By the 3rd month of intrauterine development the basic parts of the central nervous system are defined: cerebral hemispheres, brainstem, brain ventricles, spinal cord. By the 5th month the basic sulci of cerebrum are differentiated, however the cortex is still insufficiently developed. The brain tissue of a newborn is not enough differentiated, the white and grey substance are poorly divided.

The greatest changes occur within the first 5-6 years, and only by 16 years the brain becomes functionally similar to the analogous structures of the adult person.

At the earliest stages of embryogenesis the nervous system develops on the basis of the system principle with the development of first of all those parts which provide vital congenital reactions (alimentary, respiratory, excretory, protective). As the development progresses the functional systems of the brain are formed gradually according to certain principles:

- Functional systems are formed stage by stage, as vitally required. Thus, at the newborn the systems of swallowing, sucking and breathing are ready. But motor, visual, acoustical reactions are still imperfect.
- Functional systems mature gradually, that is, at first those elements mature which give the opportunity of the minimal maintenance of function, then their differentiation takes place.

It follows from this that for each age certain systems should have the appropriate maturity. In ontogeny the brain develops from the brainstem to the cortex and from posterior parts to the anterior ones. In phylogenetic sense according to J. McLean the brain contains the brainstem as the brain of reptiles, a complex of subcortical structures as the brain of mammals and the cortex of cerebral hemispheres as the brain of primates.

The brain represents a uniform system consisting of various parts and zones which perform their specific role in realization of mental processes.

According to A. R. Luria the brain can be divided into three structurally functional blocks:

- the power block or block of regulation of the brain activity levels (it includes all subcortical structures, brainstem structures, basal nuclei, limbic system, mediobasal parts of the brain).
- blocks of reception, processing and storage of information (back parts of the brain - temporal, parietal, occipital, zones of «TPO» /parietal-temporal-occipital decussation/).

• blocks of programming regulation and control over the course of mental activity (prefrontal, frontal parts, descending tracts of reticular formation).

The brain structures of this block mature last by 12 years, but occur in embryogeny first, on a background of the development of frontal structures all other parts of the brain develop. The frontal structures carry out the functions of reflection, programming and control, that is collect the information, and realize algorithms of activity.

Proceeding from ideology of functional morphology of the brain, each zone of the brain is connected with concrete psychopathology. It has the important value for psychopharmacology, electroconvulsive therapy, and diagnostics of tumours of the brain. Biological models of mental disorders are described in animals, in particular: pharmacological depressions in rats; depressions and catatonia, as well as neuroses in monkeys as a result of deprivation stress and model of «artificial mother»; pharmacological models of catatonia in monkeys, porpoises, rats and dogs; audiogenic models of epilepsy in rats, porpoises, rabbits and monkeys.

Biochemistry

The basis of all psychopathological disorders is relatively specific biochemical abnormalities, in particular connected with a level of neurohormones, metabolism, autoimmune processes. At immunologic researches of affective psychoses the antinuclear factor is found out; at schizophrenia the level of antithymocyte serum is increased and cytotoxic activity of blood serum is increased too; at epilepsy antimedullar antibodies are found out; at Alzheimer's disease the immune reaction to beta-amyloid is revealed. It is supposed that the general immune mechanism is the genetically determined changes of a tissue antigen which result in reaction of the immune system to autoantigene, to the development of autoantibodies, sensibilizing lymphocytes, which results in destructive influence on the brain structure.

Constitutional Morphology

Biological interpretation also takes into account a role of sex and morphology in manifestations of disease. The majority of mental disorders in women proceed in a milder form, or diseases have tendencies to periodic course, exception is made by andromorphic women. In comparison with other men, mental disorders proceed more favourably in gynecomorphic men.

As a whole the hormonal level varies in the majority of affective disorders; change of libido, activity of other instincts are marked.

As N. A. Kornetov's researches have shown, in picnics mental disorders precede periodically, in normasthenic — paroxysmally, and in asthenic — with tendency to continuity.

Deviations in morphological development — regional morphological dysplasias — allow indirectly judging similar deviations in the brain structure. At increase of number of dysplasias (more than three) the probability of dysplasias of the brain, i. e. organic mental disorders, increases.

At these patients the risk of side-effects of neuroleptic drugs at average and even minimal doses rises, epileptic attacks are possible at administering psychoactive agents, alcoholic intoxication proceeds abnormally.

Sociobiology

Proceeding from the general concepts of sociobiology, it is possible to say that the abnormal behaviour in population is «payment», in particular, for a genetic burden, change of ecology and pressure of culture, but also has a «prize» in the form of advantages, which the carriers of pathological genes receive. For example, the increase of number of patients, suffering from schizophrenia, may be «pay-ment» for the increase of mutagenicity of the environment, but the patients and

their relatives have selective advantages in connection with resistance to radiative influence, a temperature and pain shock. These facts are in detail described at schizophrenia. Change of ratio of sexes in population in connection with the increase of number of men may result in increase of cases of aggression, but it is suppressed due to the increase of cases of homosexuality. A stable number of some pathological forms of behaviour, according to sociobiology, is maintained by the balance of evolutionary-stable strategies to which altruism, egoism, aggression and cooperation refer. The basic concepts of socio-biology explaining the reasons of abnormal and normative behaviour are: natural selection, reproductive strategy, altruism, and cumulative adaptation. The basis of the so-called big psychoses is basic biological reactions to which the reaction of strain — flight, emotional and paroxysmal reactions refer. As a consequence of evolution these reactions have resulted in occurrence of circles of schizophrenia, epilepsy and affective disorders, fixed in connection with selective advantages of the carriers of these disorders or advantages of their relatives.

Genetics

The description of features of inheritance of pathology, i. e. background of mental and behavioural disorders in the family and peculiarities of their inheritance (dominant, recessive, polygenic) refer to biological interpretation. Phenotypes of the majority of mental disorders may be understood on the basis of contribution of genetics and environment to the formation of pathology, as well as influence of environment on genetics (mutagenesis). All data in the field of genetics of mental disorders are received on the basis of:

- genealogical researches of genealogical patients,
- studying the concordance of disorders at twins and other relatives,
- studying the development and susceptibility to illness in adopted children, born to mentally ill parents, but adopted in families of mentally healthy parents,
- karyologic chromosomal researches,
- biochemical researches,
- population researches of the risk of development of disorders depending on the factors of isolation, consanguinity and ecologic factors,
- multivariate genetic analysis,
- researches of teratogenic effect of infections, intoxications, influences of psychoactive drugs.

The majority of mental disorders have a multifactor variant of susceptibility, *i. e.* in their aetiology and pathogenesis the ratio of genetic and environmental factors is of importance. They, in particular, include: an I. Q., personal features, neurotic disorders, dementias, night enuresis, schizophrenia, affective disorders, epilepsy. However, a lot of variants of schizophrenia and epilepsy are inherited reces-sively. At the same time it is possible to observe a dominant transfer of cases of schizophrenia, affective disorders, Huntington's chorea, Pick's dementia, dyslexia, some forms of enuresis. Mental features are frequently linked to morphological characteristics and are transferred in the same way as these characteristics, therefore, determining at one of the spouses the dominant morphological features, it is possible to expect, that they, being repeated in the child, will be accompanied by the same personal features.

As indications for genetic consultation in psychiatry the following is considered:

- the presence of similar pathological cases in the family,
- the delay of mental development,
- the combination of mental, somatic disorders and anomalies of development.

Ecological Interpretation

The concept of ecology includes the definition of a concrete environmental «niche» in which a person grows and develops. It is

composed of a family environment, a group environment and the global environment.

The type of a family has an effect on individual display of mental life. There are symmetric families at which both parents are present and dominancy is stressed on the father; asymmetric families when one of the parents is absent; family deprivation. The psychological characteristics of the mother and father, as well as the order of a child's birth in the family are of significance. Features of personality, manifestations of neuroses clearly depend on these peculiarities.

The group environment most actively influences the person in the children's and teenage period of socialization. The question is not only in the type of ethnos, religious environment, but in a degree of information enrichment of the environment, /. *e.* in a degree of socialization and activity of pedagogical influence on the person. Systems of nourishment in groups and populations, probably, also influence susceptibility and manifestations of pathology. For example, it is known that the ratio of microelements in food, level of sodium and potassium may influence the activity of realization of paroxysmal conditions and aggression, and the level of lithium — on susceptibility to recurrent depressions.

Rhythmic global components refer to the global environment, for example: climatic, seasonal, geophysical rhythms, fluctuations of the level of ground radon — 222, and also such big rhythms, as rhythms of solar activity, including an 11-year and 60-year cycles (Kondratiev's rhythm). In these periods death rate, birth rate and susceptibility to a number of mental disorders increase. In particular, the connection of frequency of epileptic attacks with full moons, psychoses — with increase of geomagnetic fluctuation, and frequency of schizophrenia in population and duration of acute psychosis — with change of a mark (+ or -) of an interplanetary magnetic field are known. At a cold season patients are more often born, who further are more often subject to schizophrenia. Within high solar activity frequency of susceptibility to all mental disorders and mental epidemics rises.

External (ecological) rhythms are fixed in biological rhythms as periods of maximal pref erability of development of psychopa tho-logical conditions. Thus, the period of acute psychosis is more often kept within bounds of 9 days, depressions — 26-28 days. It is proved that such rhythmic components as rhythms of EEG, rhythms of the brainstem (temperature, respiratory rate, heart rate, arterial pressure), rhythms of emission of hormones and rhythms of the embryonic period considerably depend on the global ecological rhythms. Complexity of ecological interpretation consists in the fact that the existing endogenous rhythms of display of all biological processes, for example preferable rhythms of development of psychosis or rhythms of realization of epileptic attacks interact with each other, are synchronized by ecological rhythms, but they vary in the course of ontogeny and depend, for example, on latitude or season.

Stress and Reaction to Stress

In 1956 H. Selye published his concept of stress which he understood as «a specific reaction to non-specific influences on biological systems». The basic syndrome of stress was called as a syndrome of ^tension — flight» or the general adaptation syndrome.

He described three phases of this syndrome:

- tension, during which the symptoms of physiological response are marked,
- resistance or stage of adaptation to stressors,
- exhaustion, when resources of adaptation are exhausted, if the influence of the stressor proceeds.

Change of physical conditions, pain, psychological influence may act as a stressor. By a degree of intensity of stressor influences of psychological factors the rating scale looks as follows: the first place takes the death of close relatives, divorce, separation, own diseases, further — loss of work, change of the social status of relatives, quarrels with relatives and friends, retirement, wedding of a daughter (for the father)

and a son (for the mother), change of school (for a child). Even holidays refer to stressors.

Reaction to stress depends on the constitution and temperament, a personal history of stresses experienced earlier, psychological stability and somatic health. The stage of exhaustion is most clearly appreciable in so-called syndromes of chronic fatigue and «burning out», characteristic of persons extremely involved in professional activity.

In ordirtary life the stability to psychological stress may be provided due to training to physical stressors, for example, with the help of physical exertion (gymnastics) or getting oneself hardened. Adaptive strategies for removal of stress are: relaxation with regulation of respiratory rate, rotation and rolling, relaxation, meditation, an opportunity to express one's problem to the third person, music and pets, communication with whom promotes the removal of acuteness of stress.

The level of stress at mental disorders changes from panic to alarm and a low level. However, the external absence of reaction to stress does not mean the real absence of such reaction, as behind the external indifference hypersensitivity may be.

Pathography and Historiogenetic Interpretation

The pathographic method represents a complex description of the person with accent on manifestation of psychopathological features in him. Each person, his projections and experience, contains not only an individual material of the analysis, but also a historical one, characteristic context for the given culture. Thus, except for uniqueness each biography contains anthropological (universal) characteristics as well.

The pathographic description assumes the use of such materials, as features of creativity, curriculum vitae, diaries, reports and memoirs of contemporaries, genealogic data. Such extensive data can be received not always. Therefore, pathographies of remarkable people are the most complete. In particular, they are described in detail at Van Gogh, Goelderling and Goethe, Napoleon, Salvador Daly and many others. Not casually it is considered in psychiatry, that the description and self-description of psychopathological conditions of one genius may give more than descriptions of hundred patients.

The pathographic descriptions usually have a retrospective character, therefore the character of epoch and its tolerance to abnormal behaviour are taken into account. The pathographic descriptions have also a great ethical significance as they allow patients to understand the fact, that they are not lonely in their sufferings.

The historiogenetic approach allows understanding the reasons of the varying relation to displays of abnormal behaviour from the position of dynamics of culture. Though our actual behaviour and manifestations of mental disorders are realized now, they are frequently repeated in the same form as many generations ago. In other cases there are completely new forms of disorders, the analogues to which are difficult to find. For example, the dynamics of dissociative disorders was practically settled by the middle of the XX century; in the context of art the practice of «schizoanalysis» as some new reality of disintegration under the influence of culture appeared.

The distance between the presented symbols (for example, advertising) and quality of a real product became very big. It is one of the facts that the phenomena of semantic aphasia have become the norm of modern advertising and mass culture, as well as of utterances of politicians. Completely new phenomena of dependence on computer games and syndromes of «combustion» appeared. Unification of a modern mass culture, the occurrence of the virtual environment of the Internet result, on the one hand, in great opportunities of adaptation of such individuals, for whom it was difficult to find an ecological niche earlier, and, on the other hand, in discrimination, averaging the unique features of other personalities. But, despite the evolution of culture, prevalence of the basic «big» psychoses remains constant though their clinical manifestation is constantly transformed by culture.

The historiogenetic principle allows understanding the disorders of behaviour at teenagers as connected with the need for initiation through which teenagers of all cultures passed during millennia. From those positions the symbolics of psychopathology, in particular delirium, corresponds to some mythological sequences (mythologe-mas). Therefore the prognosis of development or prevalence of some forms of delirium is possible on the basis of known archetypical mythological designs.

Psychiatric Hermeneutics

Hermeneutics is a science about interpretation of symbols, experiences and phenomena. Psychological hermeneutics deals with interpretation of experiences, and psychiatric — with psychopathological experiences.

Any experience may be interpreted by a lot of ways: for example, proceeding from its biology, cultural context, adaptability, al-

legoricity, textually, etc. Besides, it is necessary to interpret not only what the psychiatrist fixes, but also the material which is actually presented by the patient, for example, his statements. Between two these interpretations there may be a significant divergence.

For example, interpretation by the psychiatrist of a mental condition of the patient corresponds to a moderate depressive episode. The actual description and interpretation by the patient of the condition looks as follows: «After what has happened, life seems senseless to me». To go deep by the doctor into the question what has happened and what the patient understands as the «meaning of life» will be ambiguous because he should not only estimate the adequacy of happened» but also compare the «meaning of life» of the patient to those senses of existence which are appropriate for the given culture.

Psychiatric hermeneutics allows to connect the explanation by psychiatrist of experience to the patient with the attempt of penetration into the experience, that is, its understanding. For this purpose it is necessary to use the data of all above-mentioned interpretations.

SOMATIC AND NEUROLOGICAL RESEARCH IN PSYCHIATRY

The enhanced attention to a somatic condition at mental disorders is caused by the fact that they may cause disorder themselves; somatic disorders may act as complications of therapy, and they proceed differently at mental patients than at healthy ones.

At a height of many somatic disorders psychopathological disorders are marked: at myocardial infarctions, pneumonias, at any sharp and chronic pain; the majority of patients with pathology of the gastrointestinal tract require the help of psychotherapeutist and the psychiatrist — they are hypochondriacal and quite often exaggerate the symptoms of their diseases. Nevertheless, for estimation of the contribution of exogenous factors to a clinical picture it is necessary for psychiatrist to describe a somatic condition precisely enough.

The somatoformic disorders in their symptoms precisely model rheumatism, skin itch, dispnea, and pains in the stomach. These symptoms may be removed by tranquilizers and antidepressants, but only after somatic inspection. Long intake of psychotropic agents may level the clinical picture of somatic disorders: long intake of an-tiepileptic drugs quite often results in increase of a painful threshold, and it masks the sharp onset of pathology. In these cases irrespective of complaints of the patient it is necessary once every 6 months to repeat the general analyses of urine and blood and to make therapeutic examination. At mental patients tuberculosis also proceeds in a latent form, which risk rises at continuous stay in a hospital for more than a year. The majority of psychopathological disorders deform the clinical picture of somatic diseases. Cases are described when patients with schizophrenia did not feel any pains at gastric perforation; they also more often have painless forms of myocardial infarctions. At

alcoholic psychosis, especially in delirium mussitans, pneumonias are marked in more than 60 %. At Alzheimer's disease the speed of increase of trophic disorders and formation of bedsores sometimes assumes a catastrophic character. At primary physical examination the psychiatrist should pay attention to possible traces of injections of psychoactive drugs, cuts and self-damages, traumas of the head and tattoos.

Neurologic symptoms at mental disorders have special value at side-effects of psychotropic preparations, at examination before indicating ECT and other comatose methods, at epilepsy for finding out the localization of the focus, at diagnostics of organic disorders which may result in psychopathological changes.

In psychiatry except for somatic, laboratory research the neuro-physiological methods and special methods of research of the brain are applied.

Electroencephalography (EEG) is indicated at making a differential diagnostics between mental disorders of an organic origin and psychiatric syndromes, specification of place of disorder at focal disturbances of brain.

EEG is usually administered to patients with primary psychotic episode or patients with indication in anamnesis to a craniocerebral trauma, paroxismally arising mental disorders with stereotyped repeated symptoms, neurological disorders (disorders of consciousness, neuroinfections, complications in perinatal period, convulsive attacks, vascular brain attacks). Rheoencephalography (REG) is indicated to exclude vascular involvement of the brain. More exact data about the condition of brain vessels can be received only on the basis of dopplerography. Echoscopy is applied only for estimation of displacement of medial structures of the brain on suspicion of a tumor or atrophy process, and also for revealing the dilatation of the brain ventricles. Computed tomography (CT) is recommended for excluding possible organic changes of the central nervous system, which can be the basis of mental disorder or alter it. It is carried out in the following cases: at a primary episode of psychotic disorder at the age over 40, occurrence of pathological movements, delirium or condition of dementia of unclear etiology, prolonged catatonic condition, nervous anorexia.

The absolute indications are:

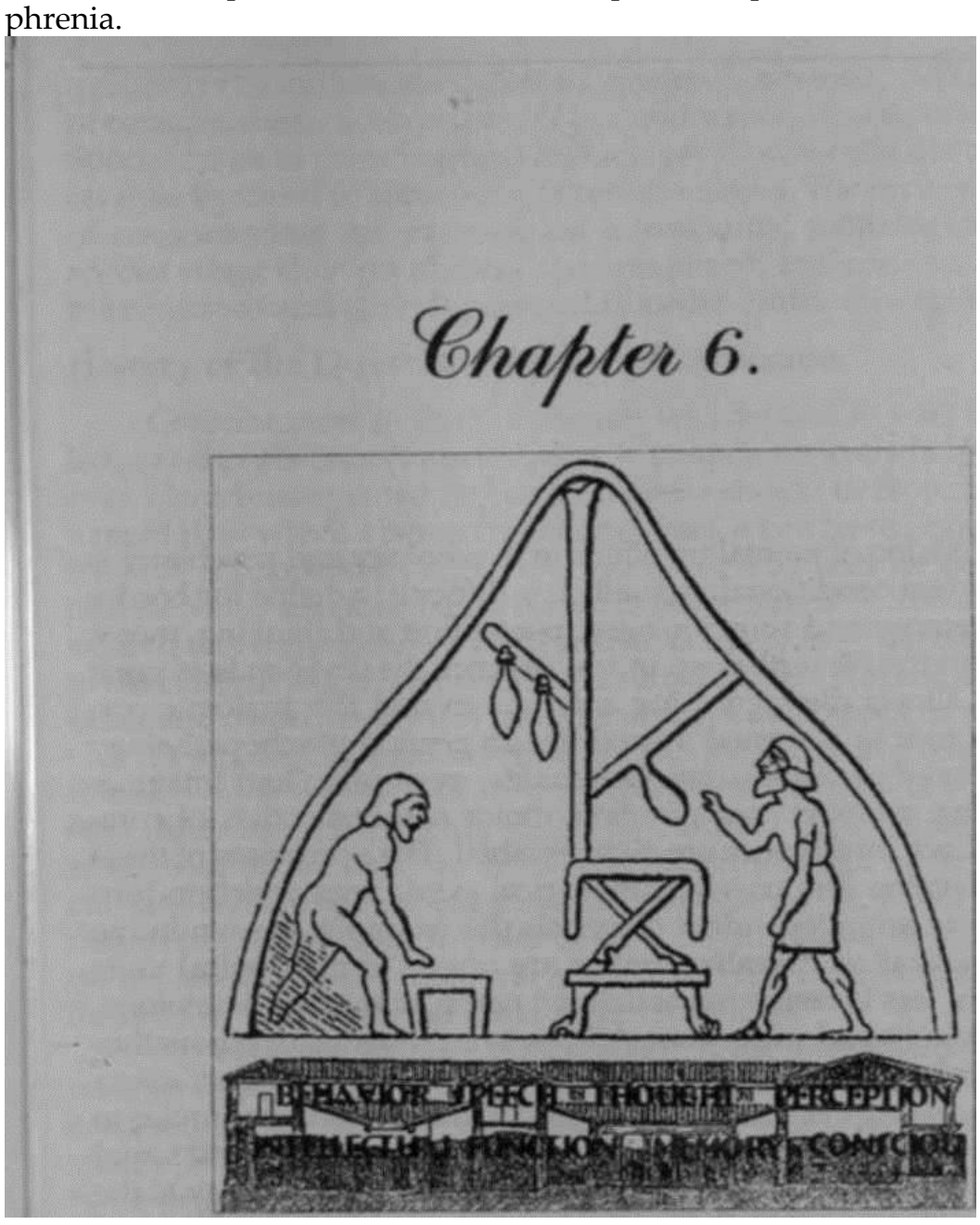
- the presence of focal symptomatology and/or of morphological damages which are found out at a low-contrast research,
- patients with craniocerebral trauma, subarachnoid hematoma.

The magnetic resonance imaging (MRI) uses a magnetic field for definition of frequency of resonance of components of a chemical element in various tissues of the body. This research is of great importance for diagnostics of primary atrophy dementias (Alzheimer's, Peak's ones).

The advantages of MRI over CT are the following: an image in all planes, including sagittal, coronal in addition to cross section; a higher resolution at the image of a tissue structure; a better distinction of white and grey substance of the brain; affection at demyelini-zation diseases (multiple sclerosis) are visible more precisely; a perfect image of hypophysial area and posterior cranial fossa. Positron emission tomography (PET) provides the image of a functional condition of the brain and is an especially promising method at research of neurotransmitter systems. The substance radiating positrons (fluorine-! 8, carbon-14) is included in a biological compound (for example, D-glucose), which is then introduced intravenously, and after that the distribution of this substance is mapped in different parts of the brain.

With the help of this method the following is investigated:

- the reduction of prefrontal metabolism at schizophrenia,
- the increase of a metabolism level in basal ganglions and orbital cortical zones of frontal lobes in patients with obsessive-compulsive disorders,
- neuroleptic blockade of D2 receptors in patients with schizo-phrenia.



The division of mental functions in psychology and psychiatry is to a great extent conditional. Actually it is difficult to define the border between memory and consciousness, perception and thinking, motor and will activity. Nevertheless, in real practice the division is of great value as it allows distinguishing a symptom and the analogue corresponding to it in a normal mental life. In general psychopathology the disorders of consciousness, personality, perception and imagination, thinking, memory and attention, motor and instinctive, of emotions and affect, intelligence are distinguished. The symptoms of these disorders develop into psychopathological syndromes which in turn may represent an independent diagnosis (for example, the syndrome of depersonalization-derealization) or are united in nosological units with more or less investigated aetiology, pathogenesis, epidemiology, symptomatology and prognosis. All the symptoms of psychopathological disorders have psychological analogues, in particular, many elements of disorder of consciousness and hallucinations are similar to dreams. Psychopathology changes together with individual and social psychology. A new phenomenon for modem psychopathology is the dependence on computer, the original «moving» of a part of mental life of the individual into virtual space and virtual relations.

Pathology of Consciousness

Definitions

In psychiatry consciousness is defined as ability in concentration of attention and orientation in oneself, time and own personality. Quantitative and qualitative disorders of consciousness are distinguished. The quantitative disorders are torpor, sopor and coma. The

qualitative disorders are delirium, oneiroid, amentia, twilight state of consciousness, automatism, fugue and trance, double orientation. Special states of consciousness include psychosensorial disturbances on a background of narrowing of consciousness. The exclusive states of consciousness are pathological intoxication, pathological affect, special ethnic changes of consciousness (amok, lou, coro, etc.). Multiple consciousness at multipersonal disorder is also distinguished.

History of the Question, Norm and Evolution

Consciousness in the XIX century was defined as a set of knowledge and experience (consciousness — cumulative knowledge). However, Heraclitus asserted that consciousness should be associated with a rapid river which a person is floating, thus, when he emerges he may fix what is happening on the river bank, but a bit later he again sinks into the water and then banks do not exist for him. S. S. Korsakoff considered that consciousness contained an active side — the relation of I to the external world. At present up to 200 definitions of consciousness exists and consequently it is possible to speak only about its models.

Psychologists consider that consciousness is a picture of the World, which shows itself in our experiences. Models of consciousness differ in various cultures and in different time. Therefore consciousness of the past can be reconstructed through all symbols of culture. The founder of experimental psychology W. James specifies that from the pedagogical point of view consciousness is constructed on the basis of association, integration and displacement, but he reflects on consciousness in the style of Heraclitus:

«As the initial concrete fact belonging to the internal experience the belief serves that in this experience conscious processes take place. States of consciousness are replaced in it one after another, just as we express impersonally „it dawns", Jt gets dark", we may also characterize this fact better by the impersonal expression „it is thought".

Consciousness, in opinion of W. James, has 4 properties:

- each state of consciousness aspires to be a part of personal consciousness,
- within limits of personal consciousness its conditions are changeable,
- any personal consciousness represents a continuous sequence of sensations,
- «it perceives some objects willingly, while others are rejected and generally all the time it makes a choice between them».

K. Marx considered that consciousness is «my attitude to my activity», emphasizing that any consciousness is a derivative of activity. Tine same point of view was held by the majority of Soviet psychologists of activity. In this definition the existence of I-attitude and action is important, hence, «invalid» — in any way does not reveal his consciousness. L. S. Vygotsky wrote that all mental functions are mediated through tools and marks. His opinion on the problem of consciousness, from A. N. Leontyev's point of view, consisted in estimation of this function as systemic and semantic, more over as the function developing in the history of culture.

The development of consciousness occurs in ontogenesis and history of culture and to study consciousness is possible by the mediated data of subject culture and signs as psychological instruments.

In «General Psychopathology» K. Jaspers asserted that «consciousness is a stage on which separate mental phenomena pass, stronger or weaker illuminated by a projector of attentions

From here it is clear that consciousness exists due to concentration of attention, and it is understandable that if the projector of the same force of light concentrates on one object (the narrowed consciousness), then all boundary mental phenomena turn out to be in the dark, and if it is wide — a majority of mental phenomena are noticeable, but they are in the zone of diffused attention. According to K. Jaspers consciousness is

first of all, the real experience of mental life, secondly, dichotomy of the subject and object, and thirdly, the knowledge of own conscious I.

In 30-40s of the XX century psychiatrists considered that consciousness exists in the integrated form which is provided with synthesis of experiences, and in the state of disintegration, for example, dream, hypnosis, meditation (altered states of consciousness). Awakening is reintegration, and pathology or pathological integration is intrusion of dream into the reality. Probably, earlier such «intrusion» was normative as many peoples have the idea about exclusive value of the information of dream and confidence that dream is the present life, and the reality actually is insignificant: such are representations of the Australian natives, in particular.

S. S. Korsakoff considered that varied internal mental processes have a subjective and a certain «even in the minimal degree attribute of consciousness".

K. Conrad writes about consciousness as «a changeable field of experiences", but in consciousness he denies an objective shade.

V. A. Gilyarovsky is sure that consciousness contains the subjective and objective sides. The subjective side is the «internal irradiation of emotional experiences, self-penetration, so to say, an internal transparency". Objectively these are such properties, which are manifested in the scheme of the mental as a number of «inhibited reflexes». For E. Kretschmer consciousness is a phenomenon of «the spherical order», including almost all spheres of mentality.

S. Freud, referring to all mental phenomena from the position of topography, dynamics and economy, in the same way referred to consciousness which he, accordingly, understood structurally consisting of I (Ego), Id and Super-Ego. I and Super-Ego arise in ontogenesis from Id.

K. G. Yung considers that the individual consciousness is a part of the collective unconscious which is archetypical, I. *e.* universal constructions of consciousness exist, uniform for representatives of different peoples. According to K. G. Yung there are 16 such constructions embodied in myths. They are incorporated by more general archetypes, such as Egoism, Shadow, Anima, Animus.

E. Erikson believes that consciousness contains all levels of crises of identity and consequently the person may be at each given moment in structurally different consciousness depending on the way of identity.

K. Popper speaks about the world of the objective contents of ideas, which exists, though grows out of the activity of thinking. The products of this world (books, theories) may be investigated in isolation from representations about the ways of their creation. According to K. Popper, the World III is the world of subjective ideas, consciousness and behaviour is the World II, the physical world is World I.

L. Wittgenstein considers that it is necessary to consider consciousness as the world given in the language, that is, consciousness reveals itself through symbols and signs, otherwise it is simply not present.

From the biological point of view all stages are included in consciousness during phylogeny: from consciousness of reptiles (the brainstem) up to consciousness of birds, mammal (subcortical structures) and primates (cortical structure). Orientation in ontogeny develops according to the following stages: orientation in place — orientation in time — orientation in own personality. A parameter of formation of I is the interest in own body.

Methods of Researches

The psychiatric model of consciousness is rather simple: it equates consciousness to orientation in oneself, time and space. Orienta lion in oneself includes comprehension of I — corporal, interpersonal and projected elements, orientation in time has only a calendar character, and orientation in space is formally territorial. A person should say, who he is, who he communicates with, to name the current date and place. If he

does it approximately, they speak about the narrowed consciousness. If he cannot name anything correctly, they speak about disorientation. For definition of features of attention it is important to establish a degree of passivity of attention, the presence of clearness of perception (the patient looks closely at or listens to, asks questions again), a degree of weakening of memorizing and recalling, disturbance of comprehending, reduction of ability to judgements and conclusions. In speech at the minimal disorders of consciousness it is possible to reveal repetitions (perseveration), repetitions of a question (echolalia), increase of distance between words, increase of number of words such as «yes», «well», swallowing the endings of words.

Symptoms and Syndromes

Quantitative and qualitative disorders of consciousness are distinguished. To quantitative disorders torpor, sopor and coma refer. To qualitative ones delirium, oneiroid, amentia, twilight state of consciousness, ambulatory automatism, fugue and trance, double orientation relate. Special states of consciousness include psycho-sensorial disturbances on a background of narrowing of consciousness. The exclusive states of consciousness are pathological intoxication, pathological affect, special ethnic changes of consciousness (amok, lou, coro, etc.). Multiple consciousness at multipersonal disorder and syndromes of the second life which are characterized by radical changes of I without amnesia of the previous I is also distinguished.

Torpor (raush) is preceded by drowsiness (somnolence) at which the patient answers questions in a slowed-up way, sometimes with half-closed eyes, he is in lethargy and sleepy. Actually for torpor all minimal symptoms of the disturbed consciousness are characteristic, that is, passivity of attention, unclear perception, weakening of memorizing, impairment of judgement, decrease of ability to judgements and conclusions. Euphoria and fussiness are possible.

Patient S., *19 years old, notices that twice a week lie had conditions offainting which were manifested by the fact that everything went dark before his eyes, sounds left and turned in ringing, it was as if everything grew cold inside the stomach, the body became soft. In these conditions he answered questions in a slowed-up way, turned pale and covered with perspiration. In two seconds tlie condition became normal and perception was restored.*

M. O. Gurevitch called such conditions as disintegration of consciousness. Sometimes they remind of the processes of physiological falling asleep.

Sopor — further disturbance of disorders of consciousness. It is characterized by disorientation, catching and proboscis movements and reflexes, muttering speech, uncoordinated movements. Painful sensitivity, papillary, conjunctivae and corneal reflexes are present.

Coma — the complete loss of consciousness. It is characterized by muscular atony, areflexy, mydriasis with absence of papillary reactions. Quantitative disorders of consciousness refer to exogenous disturbances and are marked at vascular impairment, heavy intoxications, endocrine disturbances, epilepsy (epileptic coma), after the brain traumas and in terminal stages of dying (vegetative coma). The outcome of coma is frequently characterized by the so-called out-body (extracorporal) experiences, which remind of sleep-like (oneiroid) experiences.

/ clearly saw myself on the operational table and observed people in white dressing gowns moving around me faster and faster; they did something with my body. Suddenly the pain disappeared. Tlien 1 moved into the room in which there was nothing, but a slight blow-ing from the ceiling was felt. There was a bright white light from above which like a crater was dragging me into, higher and higher. Tliis is an inexpressibly pleasant

condition — **to** *lose own body. Wlien I returned, there was disappointment and pain.*

Delirium (the delirious syndrome) is characterized by disorder of orientation in place and time at preservation of orientation in own personality, inflow of frightening visual, less often acoustical hallucinations, fear. Hallucinations are more often zoo-optical (animals, especially frequently reptiles, devils). The behaviour of the patient is determined by the contents of hallucinatory images. On outcome of delirium amnesia is absent. It is met at organic disturbances and intoxications and is considered to be an exogenous syndrome.

Patient E., *68 years old, after interruption of alcoholic hard drinking began to see collapsing castles on a wall, tie xuas surrounded by people with terrible faces who tried to strangle him. Simultaneously he saiu series of flying UFOs. He escaped from home, hid in the wood. At hospitalization he assured that he had been at his friend's who had died some years before, named the year and season incorrectly, confused dates. His face expressed horror.*

Amentia (the amentive syndrome) is characterized by complete disorientation, speech incoherence (thinking), gathering movements and a partial or full amnesia on outcome of amentia. At transition of delirium into amentia one of the first symptoms are mutter and gathering movements (delirium mussitans). It is found at organic disturbances and intoxications, refers to exogenous syndromes as well.

Patient K., 34 years old. At admitting to the clinic he named his passport data correctly, but was disoriented in place and time; saw hanged men in the windoxo, felt fear. During two nights he did not sleep. By the end of the admission day he lay within the limits of bed, pulling his blanket on himself with stereotyped movements. His speech is quiet, muttering; he repeats separate syllables, sometimes crying out «1 am going; I sliall leave. He does not fix his glance, looks around, bites his lips.*

Twilight states are characterized by narrowing of consciousness with inflow of visual hallucinations frequently coloured with yellow and red tone (erythropsia) and a partial or full amnesia on outcome of twilight. It is more often met at epilepsy.

Patient F., 30 years old, in tlie anamnesis suffers from epilepsy. For two days she stayed at the airport with her husband waiting for the flight, whicfi was constantly postponed. Suddenly she disappeared. It was learnt from her that then she appeared at home, but recognized only one room, for some reason immerged in «red darkness because of special curtains. Actually she moved away from the airport for 10 kilometres, broke a window in a kindergarten and fell asleep on the floor. She could only approximately name tlte date, tlwugh named tlie month and year; she considered tliat «her husband had just left somewhere, and they liad already arrived home».*

Oneiroid (oneiroid syndrome) — disorder of consciousness with complete disorientation, inflow of space or apocalyptical visual hallucinations, outcome of oneiroid without amnesia. It is characteristic of catatonic schizophrenia, sometimes is found at intoxications by psychoactive drugs and epilepsy. It is considered mainly to be an endogenous syndrome.

Patient N., 42 years old. He is delivered to the hospital by rescuers. He was found on a glade in a mountainous wood, sitting at an extinct fire. He did not answer any questions, carried out tlie instructions passively. Vie condition of lethargy and passivity with indifference lasted one week. On outcome of tlie condition he informed that he liad been

abducted from the wood by newcomers who had travelled zoith him «in a light beam» to the past for about 30 years. He had seen dinosaurs, how pyramids, chaiinels in Mexico, channels on Mars were being built. After the discharge from the hospital he published in esoteric newspaper the article about types of newcomers and gave examples of their language consisting of the prolonged letters «A».

Recently the oneiroid pictures reminding of stylistically complex computer games are more frequently met.

Ambulatory automatism is characterized by loss of consciousness with automatic actions and amnesia. If such actions are accompanied by excitation, but proceed about several seconds (jogging, shutting the door with a bang), we speak about a fugue; if they last for a long time (some days), we speak about a trance. They are met at epilepsy.

Patient G., *24 years old. Two years ago he suffered a brain trauma. Periodically he is disturbed by headaches with nausea. Once he went to the shop by bicycle and disappeared. He was found in a week by militia in a city, at a distance of almost 40 kilometres. He could not tell his name and exact date, he did not know how he appeared in the city. At neurological examination horizontal nystagmus was found out. He is confused, tries to recall the events of the previous week. The relatives state that he passed through the neighbouring villages in which was noticed by his acquaintances, but he did not react to their calls and «looked somewhere forward*. For some days he lived in a deserted house, gatliering scraps. After tlierapy his memory was restored only for the current events, but for the period of trance there was amnesia.*

Double orientation is characteristic of delusion, for example delusion of grandeur when the patient calls himself simultaneously a significant person and his own name, or at delusion of dramatization when the patient asserts that though he is in the given place, nevertheless this place is not real but dramatized.

Patient W., 30 years old, a political leader of some party. He was delivered from the meeting of his party in psychomotor excitation. He is correctly oriented in place and time. However, he assures that at the moment of meeting simultaneously with speeches of orators there were offstage executions, shots were heard. He understands that he is at the department, but considers tliat all tlie people around are recruited by enemy. Tltough he knows the date of hospitalization, he considers that with the help of drugs his associates are «put offfrom the date of elections by changing calendars. He calls himself correctly, but considers that simultaneously he is «devoted to the supreme ideas*.*

Double orientation is also possible at dependence on a computer game when the patient considers himself actually as himself and names a real place and time, but simultaneously designates the person, place and time of the character of the computer game in which he has existed lately.

Special conditions of consciousness include psychosensorial disturbances as derealization, depersonalization on a background of narrowing of consciousness.

Exclusive conditions of consciousness include pathological intoxication and pathological affect.

Pathological intoxication — the narrowed condition of consciousness marked at the use of the minimal dose of alcohol, aggression or other unmotivated acts with subsequent amnesia.

Patient D., 19 years old. He is delivered from the swimming-pool where he participated in competitions in under-water swimming. At the moment of the heat lie tried to strangle his competitor under

water. When pulled out of water he behaved inadequately, threw himself at his comrades, tore off his swimming trunks, shouted inarticulately. He forgot this situation. At considering circumstances it turned out that earlier the internal surface of the mask at heat was only wiped dry or washed by water, but that day the trainer recommended to wipe it with spirit. D. had never used strong alcoholic drinks before and only once had tried beer.

Pathological affect is an inadequate strong reaction to insult, humiliation, loss with the narrowed consciousness, aggression, auto-aggression. Special ethnic changes of consciousness (amok, lou, mir-riri) also refer to a pathological affect. According to the description of ethnographers, the Indian custom of self-burning of widows after the death of the spouse was frequently connected to affective narrowing of consciousness.

Patient £., 35 years old, was treated at the in-patient department for alcoholic dependence, and was getting ready for discharge. He was waiting for his spouse arid ftvo sons who should arrive by car. However, they were involved in accident and died. Having learnt about it, the patient turned and ran away, struck a casual passer-by and tore clotltes on him, having injured himself significantly.

Plural consciousness is also distinguished at multipersonal disturbance, which is characterized by transition of personality into another personality with other habits, behaviour, name and amnesia of the previous person.

Pathology of Personality

Definitions

The personality includes characteristics of social and individual qualities of a person which are expressed in his temperament, character, image of his I, and also his abilities. The structure of personality is estimated with the help of objective and subjective tests. Strongly . pronounced features of personality are referred to as accentuated personality. Pathological features of personality (personal disorders or psychopathies) include paranoid and schizoid disturbances, dissocial and emotionally unstable, hysterical and anancastic, anxious and dependent disturbances.

History of the Question, Norm and Evolution

The initial classification of the total characteristics of a person was submitted by Hippocrates who distinguished sanguine, choleric, phlegmatic and melancholic properties of a person. R. Decart distinguished the internal and external plan of personality. Separate temperaments further were connected with morphology and structure of the body into the concept of constitution. In particular, E. Kretschmer connected schizoid features of personality with the asthenic constitution, and cycloid — with the picnic one. Later on K. Mauz described a special «iktaffinic» (epileptoid) constitution, which was associated with pedantry, rancour and susceptibility to epilepsy. Characteristics of constitution are most closely connected with a genotype and hormones. C. G. Jung distinguished extravertie properties of personality absorbed in the world of pragmatical activity, and introvertie ones — with propensity of the person to reflection and construction of internal images. According to the theory of Rosenman-Fridman, different types of personality may be divided according to the reaction to stress: a high level of importance of social success, domination and competition characterizes type A. It is also characterized by a high level of susceptibility to cardiovascular diseases as a result of social stresses. Type B is directed at the decision of personal or family problems; the stress of such persons is connected to hedonistic aims. Stability to stress of this type is much higher.

In its development the personality passes the ontogenetic stages appropriate to the early childhood, school and adolescent age, maturity and old age. However, as a result of pathological reasons, evasion from the normative dynamics of development of personality is probable. In these cases there may be a fixing of the personal features of an earlier ontogeny period or regress to early stages — these problems are best described in the psychoanalytic literature. In other cases from the earliest age brighter typical features are observed which, however, do not disturb social functioning, they are referred to as personality. For the first time these features were described by K. Le-onhard in 1968. They refer to variants of norm, though in special conditions of environment at such individuals special reaction to stress is probable. Features of these persons at teenage period are described by A. E. Lichko in 1983. If traits of character, features of temperament and display of abilities come into contradiction with the environment they are determined as personality disorders (psychopathy). There are also descriptions of variants of destructive, deviating behaviour: antisocial, suicidal, conformistic, narcissistic, autistic, addictive behaviour.

The development of personality in ontogeny is defined as psychodynamics. The following are distinguished: the psychoanalytic psychodynamics, structure of personality, stages of development of personality, phenomena of personality, typology of personality and theories of personality connected to training.

There are basic models of psychoanalytic psychodynamics:

- Freudian model — the personality is formed as a result of stages of children psychosexuality;
- model of analytical psychology by C. G. Jung — the formation of personality occurs as a process of individuation, determined as conformity of I to archetypical images;
- individual-psychological model by A. Adler — the dynamics of personality is considered as a process of socialization;
- psychosocial model by E. Erikson — the existence of evolutionary stages of development of personality from birth to death.

Besides there are models of development of personality by J. Lacan, K. Homey and evolutionary psychology.

The typology of personality is described by its basic features, external and internal factors, measurements of introversion and ex-

traversion, and also by physiological theory of ranks (J. Price) according to which the personality takes a certain place in social hierarchy in connection with comprehension of a biological rank.

The basic phenomena of personality are processes of self-actualization, existential choice, hierarchy of purposes and a humanistic orientation of the basic purposes of each personality. The structure of personality consists of systems of psychological well-being and trouble and is expressed as indissoluble connection of I with a functional constitution. The nucleus of personality consists of a personal sense, consciousness, endowments, will, feelings and perception. The criteria of well-being and trouble of personality are attitudes and reaction to conflict, deprivations, prevalence of negative or positive emotions, attitude to suicide, as well as to life and death. The system of positions of fidelity to the ideals of I, lifestyle, outlook and purposes of life also refer to the criteria of well-being and trouble. An important constituent of personality is methods of lessening tension and prevention of negative emotions and creation of a positive sense of life.

Symptoms and Syndromes

An extreme expression of the normal personality is accentuation. The following are distinguished: demonstrative, pedantic, delayed, excitable, introvertive, hypothymic, hyperthymic personalities. The type of personality predisposes the individual to the development of somatoform (psychosomatics) diseases.

For demonstrative personalities the aspiration to be the focus of attention of group, eccentricity, propensity to imaginations, bright display of imaginations are characteristic. These people easily contact other people; they are sometimes superficial and deprived of depth of feelings. Among them creative persons prevail who think much of opinion of associates about themselves, are easily switched over in their activity, involve actively associates in a creative process.

> *From my childhood I dreamed of becoming an actress. When I was small and tliere came visitors, I asked my fatlier to place me on a chair and recited poems, it was pleasant when you are looked at. Hardly had I read a book as I already became the main heroine, spoke as she did, and imagined myself dressed as slie was. Then I imitated Madonna, could sing as Patricia Caas and recite poems as Minogue. At school, if I was not told that I was better in something titan others, my mood became bad.*

Pedantic personalities are characterized by aspiration to punctuality, orderliness, uneasiness and suspiciousness. They are trustful and altruistic, aspire to constant avoidance of failures, are obstinate and are men of principle, executive and always carry the planned to its conclusion. They are predisposed to ulcer colitis.

> *My parents never supervised my study, as I aspired that everything was* O. *K. I frequently had to spend nights doing my lessons at school, and then - home tasks at institute. I could never under-stand, how it is possible to prepare for examination during one day. I begin to prepare practically from tlte first lecture on a subject. It is pleasant when everything is ready beforehand. I cannot stand a disorder and if I notice it, I try to correct it. Usually I am very slow. When I plan to go somewhere, I write a detailed list of things, then I precisely know, hoto to pack them to occupy less space.*

Fixed personalities are characterized by fixing on one (mono) idea. They are moralistic, authoritative, easily form supervaluable and delirious ideas. They usually show themselves on the arena of political ideas; in science they are adherents of one idea for the whole life. Devaluation of self-estimation is not characteristic of them, and their self-confidence may

be destroyed only as a result of extreme conditions. They are predisposed to migraines.

> *1 do not believe what the nezuspapers zorite. If once my views were formed, what is the sense to change them. All the same everything will remain as earlier. It is necessary to continue to struggle for the truth, for others not to say that all this is lie and falsifications, all is arranged. There are ideals which cannot be retreated from.*

Excitable personalities are characterized by propensity to sudden and frequently inadequate emotional flashes, anger or aggression. They are predisposed to asocial acts and the use of psychoactive substances. They explain their excesses by wrong behaviour of associates. The desires of the specified persons have an impulsive character. They are predisposed to hypertonic illness.

> *It is very difficult to restrain oneself, when you are looked at in a strange way, straight into tlxe eyes, even in the street. There are only problems of it, because I ask: «Why are you looking at me, what do you need? Vie character is such that I am under a constant strain; in childhood I constantly fought, and now it happens, especially frequently with tlie wife, but she 1ms already got accustomed. If she sees that I am in bad mood site does not argue with me.*

Introvertive personalities are reserved. Having a rich inner world, they do not share it with associates. Usually they are careless about their appearance, disposed to abstract imaginations, are not capable to empathies, in a difficult situation they completely lose contact with associates. They are not capable of showing negative emotions, usually deny a negative attitude to them. They have a high risk of cancer disease.

> *I was always badly understood by parents and in general... I had one friend, but soon I was disappointed in him as well. I prefer to be lonely, to read a book or to watch TV, to dream and imagine, what would it be if... When you think so, it turns out that there is no need to do anything, everything is just clear.*

Hyperthymic personalities are characterized by sparkling fun, uncontrollable optimism, the ability to empathy, high mobility of thinking, aspiration to dominance, desire to show initiative everywhere and by overestimation of opportunities. They have a high level of susceptibility to cardiovascular diseases.

> *It is not clear, why to whimper, if everything is wonderful. If you do not like to sit at work, think of something else. I have another problem: there are so many ideas tliat I do not liave enough time to realize them. I get up at six o'clock and run round in small circles: my friends, acquaintances, girlfriends, conferences, work, parties — I am busy all day round. Everything is interesting, and I do not like to miss anything.*

Hypothymic traits of personality are described in pessimistic, passive, sluggish people, inclined to formation of the lowered self-estimation and bad mood under the influence of insignificant events. They are frequently dependent and passive. They are predisposed to diabetes and bronchial asthma.

> */ would never like to have children - what is the sense to produce the unfortunates. There is nothing good in this life; life is boring. Well, we have met, even relaxed but there was nothing to talk about, and later on there was nothing except for a headache. And froth myself I am expecting*

nothing, I would more and more prefer to lie down, because there is no sense to do anything, nothing will come of it.

Antisocial personalities are also distinguished; they oppose own morals to the morals of society. They have a high tendency to the criminal and antisocial acts.

After the first imprisonment I have understood that the whole world is divided into wolves and sheep. It is not necessary to believe anybody, except for oneself and nobody can be relied on. Everyone steals, and I do it not more than others. After that nothing remained but a checked sky; they feed normally here - and that is all right, and there, outside, nobody needs me, except for myself If you are strong, you will have everything.

Narcissistic personality is wrapped up in narcissism, with high necessity of trusteeship, dependence on leadership, including in the family, with a constant petulance and aspiration to receive an equivalent of maternal caress. Such persons appreciate comfort above psychological intensity of relations. They are susceptible to skin diseases and chronic forms of itch, and also to bronchial asthma.

Personality disorders (psychopathies) are described in detail in the appropriate sections of psychopathology. They come nearer to the basic circles of psychoses and make a «regionaI» group, more often met among relatives ill with schizophrenia, epilepsy and affective disturbances. Accordingly schizoid, cycloid, epileptoid personality disorders are distinguished, as well as paranoiac, hysterical and psychasthenic disorders, though in ICD10 dissocial ones are also described. Personality disorders are characterized by stability, involvement in the structure of behaviour of emotions and affect, display of behaviour in the social sphere, and also personal features of thinking. All personality disorders result mainly from genetic reasons, which manifest themselves under the influence of education. However, marginal personalities exist who use their personal features successfully enough in the concrete historical epoch. The development of personality disorders and their growth from the child's age are manifested in the following sequence: reaction — as the first manifestation of disharmony of personality; further — the development, when personality disorders are clearly expressed in interaction with other people; and, at last, — personality disorder which may be compensated or decompensated. Personality disorder usually becomes distinct at the age of over 16. There are typical enough and steady personality disorders characteristic of blind and deaf, deaf-and-dumb, and also of persons having been imprisoned for a long time, having experienced heavy violence or suffering. For example, for deaf-and-dumb an easy formation of delusion-like ideas is typical, and for persons who were imprisoned — basic distrustfulness and explosiveness.

Anomalies of personality tend to accumulate in families, and this increases the risk of development of psychoses in the subsequent generation. Social conditions may promote decompensation of the latent personality disorders or to provoke its decompensation. At the age of over 55 under the influence of economic stress and involution changes, personality disorders are sometimes manifested more brightly than in the middle age. For this period a special «pension syndrome» is characteristic which is manifested in loss of prospects, narrowing of the circle of contacts, a heightened interest in own health, anxiety and helplessness.

Pathology of Perception and Imagination

Definitions

Perception is a subjective mental reflection of subjects and phenomena; it develops of sensations, formation of an image, its addition

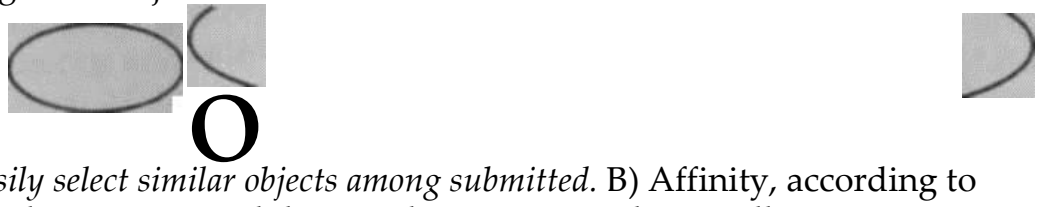
by imagination. The following groups of pathological changes of perception are distinguished: illusions, hallucinations (true and pseudo-hallucinations), psychosensorial disturbances, and agnosias. Phenomena of extrasensory perception and psychosensorial disturbances represent a special group of disturbances including disorder of perception, imagination and consciousness. Psychosensorial disturbances include depersonalization and derealization. Pathological fantasy generation refers to the pathology of imagination.

History of the Question, Norm and Evolution

The process of perception consists of elementary sensations which are synthesized in the image of an object or phenomenon, distinguished by concreteness, integrity, constancy, categoricity, which are expressed by ability to correspond the perceived object to a certain class of objects. The basic properties of perception are most fully described by the founder of gestalt-psychology M. Werthe-imer. He describes the value of correlation of perception of a figure and a background. The greatest contribution to research of perception was made by psychophysics (laws of Weber-Fechner-Stivens), which studied the connection between the threshold of sensation and force of stimulus, and also the processes of adaptation of perception. The founder of researches of physiology of perception is considered H. Helmholtz. The following are distinguished: visual perception, the brain reception of which is associated with the retina; auditory — connected with Corti's organ; olfactory — with olfactory epithelium; gustatory — gustatory cells; tactile — with skin receptors; kinaesthetic — with receptors of the muscles, tendons, articulate bursa; vestibular — with semicircular ducts; and also a painful perception which may be connected with any receptors at super strong influence on them.

Natural laws of perception are the following:

A) Similarity, due to which similar objects are distinguished among other objects. ^—■ —



We easily select similar objects among submitted. B) Affinity, according to which there is a critical distance between two objects, allowing considering them as a uniform object.

1

Tlie left ovals look like a uniform object, the right ones - like hoc objects.

C) Pragnanz-Law (orderliness), due to which we establish order in

any chaotic field of objects. ^^^^^^

° <->

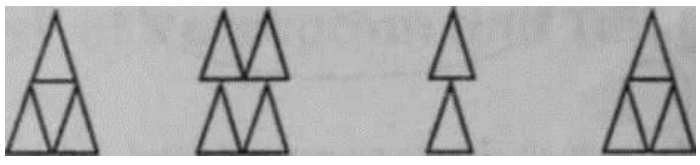
We are capable to establish order in a chaotic combination of circles, stars and rectangles.

D) Closeness and subsidiarity, due to which we may supplement

absent details of an object.

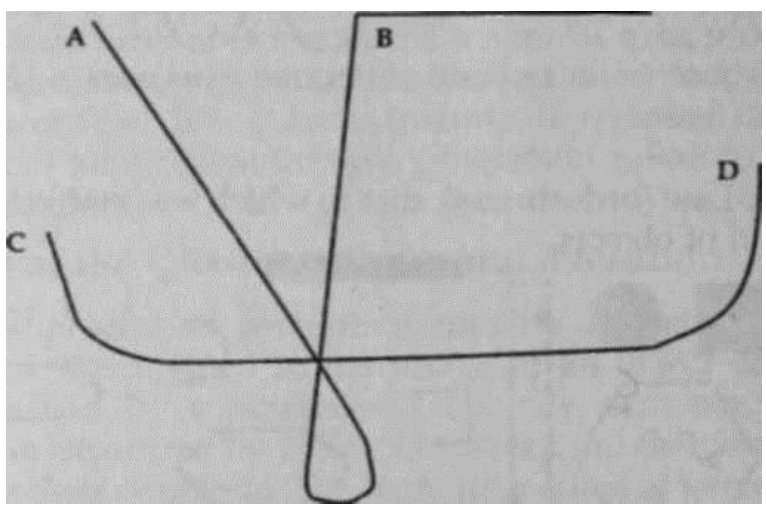
The left figure cannot be added by imagination up to a circle, and the right one can.

E) Symmetry and imitation, allowing to reveal stereotyped rhythms of designs of objects.



The top and bottom row are symmetric and due to identical distances simulate each other.

F) Continuation, due to which we can follow the movement of an object in the field of movements of other objects.



It is noticeable that B is considered as continuation of A, but not C, and D — as continuation ofC, but not A.

Fig. 2. Laws of similarity

At the level of formation of image there is a code conversion — transfer of signs of one sensory system to another. These transfers are studied by psychology of subjective semantics, the founder of which in our country was E. J. Artemyeva. Transfers are noticeable because we, for example, can associate the form with colour, smell, and tactile sensations — with taste or sound, etc. Similar transfers are called nonverbal-nonverbal.

At restriction of sensory stimuli — deprivation — even at mentally healthy persons in 24 hours the following disturbances are observed. At first there is fear, panic, decrease of mood; then the perception of space varies which seems big or small, motor coordina

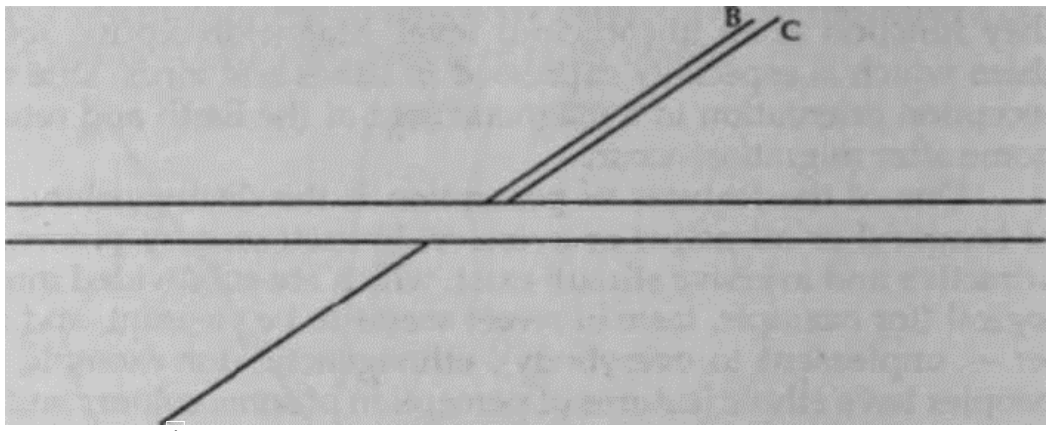
tion is disturbed, the sensation of time changes (days last like years), the rhythm of sleep-wakefulness is transformed; further thought disorder and the body scheme disturbance are found out; and then — illusions and hallucinations take place. At further deprivation the formation of delusion and somatic disorders is possible. At artificial sensory deprivation, for example, in special deprivation baths, the phenomena of perception, reminding of parapsychological ones, occur. Thus, a person can hear how the door opens in machine situated in the next street. In the course of evolution the person has lost some perceptive systems, though it is possible that in the latent condition they function at an unconscious level. Magnetoreception refers to them which is especially expressed in fishes and birds. Due to this reception orientation in a magnetic field of the Earth and returning home after migration occur.

One of the features of perception is the distinguishing by us of beautiful or attractive or aversive. In each sensory process such attractive and aversive stimuli exist, which are subdivided into: biological (for example, taste of sweet seems to be pleasant, and of bitter — unpleasant to everybody), ethnogenetic (for example, some peoples have ethnic features of perception of some colours and taste, in particular, pygmies react by nausea to the smell of a tooth-paste) and individual. Biological attractiveness-unattractiveness is connected to the significance of some stimuli for the survival of species.

The deformed perception of the world (illusory) is caused also by biological laws, for example: looking at a subject placed into water, we see it as if broken on the level of a water surface, due to this at taking a subject out water it is fixed with displacement forward, that is important for fishing (Poggendorf illusion). An object situated in the corner seems to be bigger than that one situated further from the corner (Dancio illusion). Due to this illusion the «behaviour of hiding in the corner», occurring at fear, assists in scaring away a predator as the visual perception increases the size of an object. When we see the moving clouds and the moon, it seems to us that

the moon is moving, and the background is steady. This adaptation is also evolutionary conditioned as, being primates, we are adapted to the fact that • in nature a figure is more often moving against a background, and not vice versa. Muller-Luer illusions have a direct attitude to perception of a person by a person: if at the observed person the hands are raised, he seems to be higher than that whose shoulders are lowered, though the size of their trunks are identical.

Dancio Illusion: *the segment in the corner seems longer.*



Poggendorf Illusion: *A is a continuation of* C, *but it seems that A is a continuation ofB.*

Fig. 3. Illusions of perception

In ontogeny the processes of perception have an integrated (syncretic) character. In particular, a child easily associates various sensory processes and can easily transform a visual image into acoustical one, besides with the help of imagination he is capable to recreate the image even when the latter has disappeared from visual field. This phenomenon, called eudetism, is preserved in artists, writers and creative persons. In the process of eudetic perception semantic transfers easily occur, for example, famous Russian artist Ayva-zovsky was depicting the storm seen earlier and at the moment of his picturesque painting he felt nausea.

Symptoms and Syndromes

In psychopathology disorders of sensations are revealed to which the following refer: hyperesthesia, hypesthesia, anesthesia, paresthesia and cenestopathy, as well as a phantom-symptom.

Hyperesthesia is the disturbance of sensitivity which is expressed in super strong perception of light, sound, smell. It is characteristic of the conditions after the suffered somatic diseases, cranio-cereberal trauma. Patients can perceive a leaf rustle at wind similar to roaring iron, and natural light — as very bright.

Hypesthesia is the decrease of sensitivity to sensory stimuli. Environment is perceived as faded, dim, and imperceptible. This phenomenon is typical of depressive disturbances.

Anesthesia is more often the loss of tactile sensitivity or functional loss of ability to perception of taste, smell, separate objects; it is typical of dissociative (hysterical) disturbances.

Paresthesia is the sensation of pricking, burning, creeping. It is typical of somatoform disorders and somatic diseases. Paresthesias are caused by features of blood supply and innervations, thus differing from cenestopathy.

> *Weight under the right hypochondrium is familiar to me for a long time and occurs after fat food, but sometimes it spreads as pressure above the right clavicle, and to the right shoulder joint.*

Cenestopathies are complex unusual sensations in the body with experiences of moving, transfusion, dynamics. They are quite often mannered and expressed by unusual metaphorical language, for example, patients speak about replacement of tickling inside the brain, transfusion of liquid from the throat to the sexual organs, distension and compression of the esophagus.

> *«„l feel", says patient N., „that ...as if my veins and vessels have become empty, and air is pumped through them which necessarily should get into the heart, and it will stop. There is something like dilatation under the skin. And tlien there are pushes of blebs and boiling of blood"».*

Phantom-syndrome is marked in persons with the loss of extremities. The patient supersedes absence of extremities and as if feels pains or movements in the absent extremity. Frequently such experiences arise after awakening and are supplemented by dreams in which the patient sees himself with existing extremity.

The basic disturbances of perception are illusions and hallucinations. Patients may speak about these phenomena reluctantly or hide them.

Indirect signs of perception disturbances are:

- conversation of the person with himself (in loneliness or in the presence of others),
- unreasonable and sudden change of attitude to associates,
- the occurrence of new words (neologisms) in speech,
- mimic grimaces,
- propensity to solitude, change of mood,
- reduction of chewing muscles and sternocleidomastoid muscles,
- tension of the orbital area at half-opened mouth,
- a sudden glance aside at conversation,
- dissociation of facial expression, posture and gesture,
- not purposeful, unexpected gestures at rather motionless facial expression.

Illusions are a deformed perception of really existing objects: in the sound of falling water (a really existing stimulus) the voice (an illusory image) is heard. The basic characteristics of illusions are:

- the presence of an object or phenomenon which is exposed to distortion, for example, visual, auditory or other sensory image,
- a sensory character of the phenomenon, that is, its connection with a concrete modality of perception,
- the deformed estimation of an object,
- estimation of the deformed sensation as a real one,

- disappearance of illusion after the estimation of thinking or inclusion of other modality, for example, at visual illusion the attempt to touch an object allows to exclude an illusory perception.

According to complexity the illusions are divided into: elementary, simple, complex, panoramic and paraeidolic (for example, images which we may see in a turn of clouds or pattern of a carpet).

According to sense organs the illusions are divided into: tactile, visual, olfactory, acoustical, proprioceptive and kinesthetic.

According to reasons of occurrence of illusions, they are divided into: physical, connected with objective properties of the environment, for example, caused by features of refraction of light or reflection of sound; physiological, connected with peripheral analyzers, for example, illusions of luminous light — luminescence around lanterns in patients with glaucoma; mental, in particular connected with expectation of any person whom we, being mistaken, suddenly see in a crowd; eidetic, connected with imagination.

Illusions are characteristic of neurotic disorders, and also of the first stages of development of consciousness disorders, for example, delirium. Some illusions occur at mentally healthy persons in special stress conditions of the environment. For example, at landing on the Moon cosmonaut Armstrong felt being shadowed that was connected with illusory perception of fluctuation of the aerial of the space shuttle.

> *Wlien you return home in the evening, the light of lanterns falls on the road, along which poplars grow; if there is a wind, shadows of branches change and then it seems that the road is rough and reminds of waves. It is necessary to slacken the pace not to stumble. This sensation disappears if not to look at the road but aside, or to listen to night sounds.*

Hallucination is the perception of an object or a sensory image, which arises without the presence of a real object, but is accompanied by confidence in the fact that this object exists. The term «hallucina-tion» is introduced for the first time by J. -E. D. Esquirol in 1838. By a degree of complexity they are divided into elementary, simple and complex.

To elementary hallucinations, the most typical of epilepsy, simple sounds of a rumble heard from the outside, ring, hooter of a steam locomotive (acuphen), flashes of light or simple luminous figures which can be simulated at the closed eyes by pressing on eyeballs (phosphen), smells of decay or pleasant smells usually accompanied by sialorrhea (parosmias) refer.

> *Just before the attack I sometimes see, how the stream of light breaks up to small luminous points of different colour as at works of impressionists, they mix and as if replace a reality, then some small points merge into a stain.*

Simple hallucinations are typical of organic cerebral affections. For example, at local affections of the occipital area of the left hemisphere the patient may observe the completed and subject image of a fish, human face or a hanging axe which is observed in a concrete place of space (Charles Bonne's hallucination). The patient may feel the moving of insects under the skin in a concrete zone of the body that is typical of organic affection of cerebral peduncle (peduncular [mesencephalic] hallucinosis).

> */ always have one and the same image which arises at significant exhaustion and usually in the evening. In a lateral field qfwsion I see a quickly moving object reminding of the clockwork mouse. It moves along a straight line, but as soon as you look at it, it disappears.*

Complex hallucinatory images remind of the dynamic phenomena. For example, the audible voice may comment events or associates, and a visible image may move, smile or cry.

Tliere is a mess in the head. A man is speaking with a woman about some trivial events and is speaking very quietly, but on this back-ground commands and persuasions are sometimes given not to listen to them. Some of them are mixed with my thoughts. There are voices, which «show» pictures, for example, he speaks and shows what he is speaking about on something similar to the screen of a computer.

According to sense organs, hallucinations are divided in the same way as illusions.

According to conditions of occurrence, hallucinations are divided into those preceding falling asleep — hypnagogic (these are usually consecutive images, reminding of frames of film) and those marked at the moment of awakening — hypnopompic hallucinations.

As soon as you close your eyes, first black-and-white frames of separate events of tlie day appear before the internal eye, they are clmnged, but they cannot be controlled. Tlien some of them turn into small, sometimes colour films and in this case there are plots in them, which then arise in dream. Before opening my eyes, I quasi see my dream up to the end but hear everything that occurs around, I speak but I cannot control myself For example, I see that I drive a car but cannot control my liands which actually press a blanket

Hallucinations are also divided according to the space of their occurrence into true hallucinations and pseudo-hallucinations. True hallucinations are projected in natural space, for example: voices are audible in the street or in a room; the image is visible directly in front of the patient. By the contents true acoustical hallucinations may be commenting (voices explain the behaviour of the patient), imperative

(voices force to do something), conversational (voices talk to each other).

At true visual hallucinations concreteness of images is so high that patients communicate with them as if with alive people, besides the patient is convinced that associates also see these images. True hallucinations tend to occur more often in the evening, it especially concerns visions.

/ was told tliat yesterday I talked to someone, tlxese were angels. They were numerous, tfiey came into the room and it was completely crowded by them, it is not clear why they were not seen by the son, he sleeps next to me. They were all alike, with long fair hair and blue eyes, in lilac clothes and with silvery wings, they sang and spoke to each other, then began to fly around me and touch my face. It was pleasant, but they did not answer me. It seems, I laughed.

At pseudo-hallucinations visions are transparent and incorporeal, they are closely connected to thinking and may associate with a concrete idea. The Russian poet V. Khlebnikov determined such connection as a «thought-form». Pseudo-hallucination images interfere with mentality violently, therefore they are explained by the patient as a result of influence of another's will, energy or force. Representation may arise that they speak by the patient's own voice, operating his organs of speech and consequently the stated ideas do not belong to the person at all (speech-motor hallucinations of Segla). They may also be combined with the ideas of management, for example experiences that mood is connected with an alien force, which operates movements of the body, ideas and intentions. This phenomenon is called mental automatism.

This is a terrible state - to know that you do not belong to yourself You begin to explain something, and tlte voice is strange and you say not the necessary thing as if someone speaks through you. Tlien you begin to think about something good, and the idea is impossible, it is suddenly interrupted and becomes so loud that everyone hears it, even in ttie street; for example, a neighbour, who tixen looks at me meaningfully. The most difficult thing

is to make a decision. You want to buy something, but hands do not obey you, as mechanical, instead of getting money, tltey throio a bag. Wlmt am I like actually? I do not know now.

Acoustical pseudo-hallucinations are projected into conceivable ' space, for example, voices may be heard from another room which is well isolated, and even from other planets or come from the body. More often they are audible inside the head as sounding or inconsistent ideas. Pseudo-hallucination subject images inside the body are referred to as somatic hallucinations. It may be the experience of a concrete, frequently moving foreign body inside the abdomen — of a child, animal or mechanism. The internal image may have pseudo-hallucination ideas which it exchanges with the patient. Pseudo-hallucinations are the most typical of schizophrenia.

/ have understood that I am pregnant: once at night something came to me, and it was very pleasant, then in a week kick by a leg appeared in the abdomen, but it was not one diild, but maybe three children. I felt the head of one of them on the right. All of titem grew very quickly, though the abdomen did not increase in size. In the morning I woke up and understood, that I gave birth to one of them at night, so only two remained. I searched for it in the whole room, because if it liad developed so quickly, it could also grow up quickly and leave.

Psychosensorial disorders are sometimes considered intermediate between disorders of consciousness and perception. To these experiences of depersonalization and derealization, as well as special syndromes described below relate.

Depersonalization is expressed by the following symptoms:

- changes of I, original sensations of transformation, more often negative, of own personality, accompanied by fear to go mad, experience of own uselessness, futility of sense of life and loss of desires. This condition is typical of affective disturbances and some neuroses.

All day long I lie on the sofa at a sivitched off TV set and I look at the xoall, it is impossible to move, because I want nothing. Mechanically I eat, go to the toilet, I seldom wash myself. Certainly, I am dissatisfied with myself, but zohat can I do? I would like to have desires, but they are absent. All are expecting something from me, but it is just the same for me because I would like nothing.

- splitting of I, typical of schizophrenia and dissociative disturbances, is expressed in the feeling of presence of two and more persons in oneself, each of them has own intentions, desires.

It is difficult to choose a decision: if I act as earlier, it will be insincere, because now I am different, though I do not know exactly what I am like. The former was a good and weak person, and this one is bad but strong. Certainly, nobody understands me now, because I myself do not know, who I am. If you act as earlier, nothing comes of it, if you do as the former one - nobody is pleased with you. It is better to do nothing in general.

- change of the body scheme is expressed in abnormal perception of the length of extremities, shortening or extension of hands and legs, changes of the form of the face, head. This condition is observed as a result of organic disturbances.

These bruises at my face are because I levelled my face. It for some reason became triangular in the area of cheekbones and on the chin, tliere was like a hole on the temple, though it was not visible in the mirror. I took a plaster and stuck it, tlien I used a shoe knife — and blood appeared.

Derealization is expressed by the change of:

- colours, for example: at depressions the world may seem to be grey or with prevalence of dark blue tones, that is especially appreciable in creative work of artists (for example, E. Munk during depressions used mainly black, dark blue and green colours). Patients with manic conditions and at the use of at-ropine-like preparations mark prevalence of bright colours in the environment. Perception of red and yellow tones or a fire is typical of twilight epileptic states.

You have, probably, noticed that my pictures are in two ranges of colours. Tins series is totally devoted to night and the time right after the sunset, there is much green and dark blue here, and tliat one is in pastel and more warm tones, these are basically portraits. In tlie first condition I would not like to see and draw people at all, and in the second one, on the contrary, I constantly communicate.

- forms and sizes: the environment may increase or decrease (syndrome of Alice in Wonderland), come nearer and move away, be constantly transformed. The patient may perceive the right side as the left one and vice versa (syndrome of Alice through the Looking-glass). Such conditions are characteristic of intoxications by psychoactive substances and of organic disorders of the brain.

This state lias appeared after the first inhalation of hashish. All over again I became as if about three meters higher and looked at eve-rything from above, then the room increased, and sounds became audible from far away. Wlien you go on such long legs, you are all the time afraid to step somewhere on the wrong place and it is terrible even to look at the legs — they are so far away.

- rate and time: the surroundings may seem extremely quickly varied, similar to the sequences of the old cinema (syndrome of the cinema) or, on the contrary, may seem delayed. In some cases it seems that months run as an instant, in others — the night is endless. Patients may say that they notice one and the same repeated plot. All the specified experiences are connected with emotionality, for example, at good mood it seems that time flows faster, and at bad one — slowler.

Wlien visitors came, I was sleeping. They were speaking about some money, then laughed, then left, but tlien suddenly all was repeated, again they greeted, came in, began to speak, laugh, but there were neztr details, knock of utensils, then again all was repeated many times. I thought, how long all that would last and when it would be over?

To psychosensorial disturbances some conditions typical of epilepsy — «already seen (heard)», «never seen (heard)» — refer, which in general are close to the experience of «already experienced and felt». At the symptom of «already seen (heard)» the patient speaks about a new place, as if familiar to him, and, accordingly, about the new heard information, as familiar to him. He interprets it sometimes by dreams which were as if prophetical. At the symptom of «never seen (heard)» the patient assures that earlier familiar place or information are completely unknown and alien to him.

I have heard about prophetical dreams many times, but I have never had such dreams. And once I came to work, and my subordinate addressed me with the offer to change the interior of our office — to make a partitiort there. I thought, where I knew what he would tell me about? Tlien I recalled that I had Itad a dream exactly about it, and besides he had spoken about all this to me before, but wlten I asked him, he denied it all.

A lot of phenomena of extrasensory perception, sometimes called parapsychological or psychoenergetic, are actually the result of disorders

of perception. They should be differentiated from the similar phenomena connected with subthreshold sensitivity to some stimuli. For example, reading a text with closed eyes blindly by finger-tips of the hands may be explained by «thermal» sight, that is, the tactile sensations of heat connected with the difference between reflection of heat of the hand from the surfaces with various colouring; it is also possible to have a presentiment of behaviour of other person on the basis of unconscious perception of his facial expression just before, for example, an aggressive action.

To the phenomena of extrasensory perception the following relate:

- clairvoyance (teleaestesia) — the perception of remote physical objects or events as observable. In this case in a special condition the patient says that he knows how this or that person behaves at an extremely large distance from him.

/ have not understood at once tliat it is love. In some time after our parting I have understood that mentally I am connected with her, and I can say what she is doing at the moment - entering a cafe, going to her girl friend. Sometimes in the evening I feel the cold in the chest — she is taking a bath, then I move a pen over paper, and it is writing what slie is thinking about by her handwriting. I do not know, whether it corresponds to reality, because it is impossible to ask her about it, as she lives thousand kilometres away from here.

- precognition or retrocognition — a prediction or presentiment of the future events or events having taken place in the past, but inaccessible to usual memories, that is, the patient knows what actually occurred in the past and predicts events of the future.

Patient L. (24 years old) says that before epileptic attack she had a foreboding that the destruction of the Russian submarine «Kur$k» would take place and still before that, being a child, she had seen a big earthquake in India and lieard shouts of victims. But fixation of such precognition before the events was absent, and she told about this prediction already after the events.

- autoscopy — hallucinatory experience of another person, creature or parts of his body (phantom) which may be perceived as reflected in a mirror. This phantom is colourless, incorporeal, may imitate the behaviour of the patient or another person, for example, recently died relative.

I was not on funeral of my grandfather, he died some years ago, and. I loved him very much. Wlien I had this depression, he came to me in the evening as a phantom and stared at me. I did not feel any fear but could not fall asleep, I thought about him all the time. Tlien I recalled that I had looked through the album before and had seen his photo in it.

- extrasensory diagnostics by imposing hands or examining aura: at approximation of palms to another person without a touch and palpation there are sensations of the form and even colour; similar sensations occur at examining «lumines-cence» around the head.

K. assures that she may, without touching a person, with hands extending forward, say what he is ill with. She does not see it, but feels certain sensations in palms, something like pricking, heat and cold. She lists a set of illnesses at once, and some people find among them those, which symptoms are similar to their symptoms. This ability to list quickly various «damages» has brought her to the medical centre in which she rather safely existed as «energetic therapist. Besides she «diagnoses aura* and «corrects it by the movement of her hand*. She is induced by her own mother who suffers from delusion of control and considers that her daughter deflects «beams of bad energy* from her. Her first patient was her father who complained of weight in the loin; after imposing hands he felt heat*

and relief; then he invited his colleagues to her. In some time she had to stop this practice as she felt an «attack of power vampires who «stole her energy* at night.*

- astroprojection and psychospheric contact - a visualized concept about what is outside the body (frequently in the universe). Thus, psychoenergetic influences are fixed in spirals, strings, mobile objects, luminous spheres, etc.

C *during conversation removes invisible strings from himself and swings the hand above his head, then suddenly he rushes to the interlocutor and as if extracts a rope from his stomach. He has been committing these frightening actions for three days already after the «Teacher» said that his «aura is spoiled» by «agregor» which is in other Galaxy. In some time he begins to experience contact with these creatures as a control system of ideas.*

- telepathy — reading of ideas at a distance, a phenomenon frequently met at schizophrenia in the framework of the «symp-tom of openness of ideas» and at Kandinsky-Clerambout's syndrome.

. assures tliat he is capable of reading ideas of the surrounding people at a distance of several hundred kilometres. Thus, he writes down the read ideas as scraps of phrases in a beat of verse. He describes his ability as «attacks of inspiration ». Simultaneously he is capable of transmitting his ideas to the object of his affection, being in other country, he transmits her «mental verses» and manages her behaviour.

- telekinesis — movement of objects with the help of effort of will — the phenomenon caused either by dexterously forged focus, or connected to high suggestibility of observers and their inductance.

Physicist K. slwws a film. The film depicts a session of telekinesis. Six persons are sitting around a table; K. with the help of a glance moves matches, which are guided on the table, forming his initials. The offer to repeat telekinesis in the other room is rejected by him, he explains it by «bad concentration ofideas». He also refuses the presence of physicists-experts and psychiatrist on the session. Further it has been found out that under the table K. established the generator, and matches were impregnated with a metal dust.

All psychoenergetic disturbances are found out at schizophrenia, schizotypical disorders, epilepsy and dissociative disorders; they are also distinguished by a high degree of inductance.

The eidetic perception happens to be pathological as well. For example, at sensitive persons under the influence of some psychotech-niques, in particular meditations, the imagined object may for a long time be fixed in the field of vision as hallucinatory or pseudo-hallucinatory. In children with psychopathological disturbances visualized representations are described, which are included in pathological imagination. A child or a teenager builds up an imaginary world of other country inhabited by kind or malicious wizards, whom he communicates in loneliness with; at pathological (delusion-like) imagination this world supersedes the reality or transforms it. In these cases imaginations cease to be changeable and acquire a stiffened character. *Boy A., 10 years old, for the fifth time already leaves home without any visible reasons, sometimes lie comes back himself but more often he is searched, and found in the suburbs of the city near the wood. He constantly assures that he met a helicopter of aliens, who kill and steal children. Tlxey live in the wood, and his task is to find them, as only he may prevent all this. He describes the details of murders with dismemberment of bodies and indicates numerous signs of victims. In his copybooks he draws scenes of murders and kidnappings by aliens.*

Most frequently hallucinatory disturbances are included in hallucinatory, delirium, amentive, oneiroid, hallucinatory-paranoid syndromes, in particular in the Kandinsky-Clerambout's syndrome.

For hallucinatory syndromes (hallucinoses) changes of consciousness and interpretation of disturbances of perception are not characteristic, and hallucinations are manifested in any one sphere (visual, acoustical, olfactory, tactile). Hallucinatory syndromes are met both at exogenic and endogenic disturbances.

J *have got accustomed to these voices so much that I absolutely do not notice them. It is true that sometimes I answer them, and people turn round. But upon the whole I control myself because, you see, all this lasts for many years. Tlxey say one and the same thing: you luill die soon, very soon, and your last hour will come, then they begin to sing a song. It is a duet: a man and a woman, and the song is the same and even audible always from the left.* Hallucinatory-paranoid syndrome is such a syndrome at which the patient explains his hallucinatory images by, for example, prosecution or by special relation to him; but it so happens that in these syndromes the delusion is initial, and hallucinations occur later. *At first there were machines which went around me in a definite way, and they had numbers which sum made up 24, this is my age. Titen these hints in the underground: 1 go by escalator, and men give me a wink, as if I am a prostitute. Tlien 1 began to hear, how women in the yard spoke about me, «You see, how she behaves, she earns by her body».*

Kandinsky-CIerambout's syndrome includes experiences of automatism of ideas, desires, actions and emotions with delirious interpretation, more often in the form of delusion of control. In western psychiatry it corresponds to syndromes of the first rank at schizophrenia.
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> *My daughter behaves in such a way since April. First she spoke to herself, and then she laughed and for some reason rubbed her ears. She says that 1 am not her mother as some magician has told it to her. He forces her to refuse food and to laugh. She explains it by the fact that she has met him once at prayerful assembly, and since then he influences her in different ways. For example, he may contact the announcer of TV and force her to go to bed earlier than usual.*

Pathology of Thinking

Definitions

Thinking is the process of construction of image of the surrounding world and its cognition, inducing creativity. The pathology of thinking is divided into disturbances according to the rate (accelerated, sluggish thinking), structure (discontinued, paralogical, detailed, thought obstruction, mentism), content (obsessional, super-valuable and delirious ideas).

History of the Question, Norm and Evolution

Judgments about a person are based on observation of his behaviour and the analysis of his speech. Due to the received data it is possible to say, how much the surrounding world corresponds (is adequate) to the inner world of the person. The inner world itself and the process of its cognition make up the essence of the process of thinking. As this world is also consciousness, it is possible to say that thinking is the process of formation of consciousness. The reflection as such may be presented as a consecutive process in which each

previous judgment is connected to the subsequent one, that is, between them the logic is established, which is formally included into the scheme «if... that». At such approach the third, hidden meaning between two concepts is not given. For example, if it is cold, it is necessary to put on a coat. However, during thinking the third element may be motivation. The person, who is getting himself hardened against a cold, will not put on a coat at the decrease of temperature. Besides, he may have a social concept, what a low temperature is, and his own experience of behavior with similar temperatures. The child runs barefoot in cold pools, though he is forbidden to do it, only because it is pleasant to him. Hence, thinking can be divided into the processes of logic, processes connected with speech (including its rate), individual and social motivation, formation of concepts. It is quite definite that apart from the conscious, actually stated process of thinking there is also an unconscious process, which may be revealed in the structure of speech. From the point of view of logic the process of thinking is composed of analysis, synthesis, generalization, concretization and abstraction (distraction). However, logic may be formal, and may be metaphorical, that is, poetic. We may refuse something because it is harmful, or because we intuitively do not like it, or if harm is proved not by experience but by a word of authority. Such other logic is referred to as mythological or archaic. When a girl tears a portrait of a beloved because he has betrayed her, she symbolically destroys his image, though logically a scrap of paper with the image of a person has nothing to do with the person himself. The person and his image, or his object, or parts of the person (hair, for example) in this mythological thinking are identified. Another law of mythological (archaic, poetic) thinking is binary oppositions, which are oppositions of the type: the good — the evil, life — death, divine — terrestrial, male — female. One more attribute is etiologism, which makes a person reflect on, «Why has it happened to me?» though he perfectly knows that similar accident repeatedly occurred with others in the past. In mythological thinking die unity of perception, feelings and thinking is inseparable. It is especially appreciable in children who speak about what they see and feel without a distinct delay. The mythological thinking in adults is typical of poets and artists, however, at psychopathology it is manifested as an uncontrollable spontaneous process.

The process of thinking is formed as a result of training. K. Tol-man considered that it occurs due to formation of a cognitive link,

and Keller specified the role of a sudden inspiration — «insight». According to A. Bandura, such training occurs during imitation and repetition. According to I. P. Pavlov, the processes of thinking reflect physiology of conditioned and unconditioned reflexes. Behaviourists have developed this theory into the concept of operational training. According to E. L. Thorndike, thinking is a reflection of behaviour connected with the system of tests and mistakes, as well as with fixing effects of punishment in the past. B. F. Skinner has distinguished such operants of training, as prejudices, own reflex behaviour, the updating of behaviour connected to training, forming of new behaviour. The behaviour and thinking form the purposes as a result of reinforcement, positive or negative (one of the forms of a negative reinforcement is punishment). Thus, the process of thinking may be generated due to selection of the list of reinforcements and punishments. To the positive reinforcements, promoting the formation of motivations and concrete schemes of thinking, food, water, sex, gift, money, increase of the economic status refer. The positive reinforcement promotes fixing the behaviour, previous to reinforcement, for example, «good» behaviour which is followed by a gift. Thus, such cognitive links or behaviour are formed which are encouraged or socially acceptable. The negative reinforcement is caused by darkness, heat, impact, «loss of social face», pain, criticism, hunger or failure (deprivation). Due to system of negative reinforcements a person avoids such way of thinking which leads to punishment.

The social motivation of the process of thinking depends on culture, influence of an authoritative person, and need of social approval. It is caused by aspiration to prestigious values of the group or society and consists of strategy of overcoming difficulties. The highest needs, according to A. Maslow, are self-realization, as well as cognitive and aesthetic needs. The intermediate place in the hierarchy of needs belongs to aspiration to order, justice and beauty, and also needs of respect, recognition and gratitude. At the lowest level there are needs of attachment, love, belonging to group, and also physiological needs.

The basic thought processes are the formation of concepts, judgments and conclusions. Simple concepts are essential attributes of objects or phenomena; complex concepts assume abstraction from an object — symbolization. For example, blood, as a simple concept is associated with a concrete physiological liquid, however, as a complex concept it also means affinity, «blood relationship, consanguinity». Accordingly, colour of blood symbolically specifies family (kin, clan) — «blue blood». The sources of interpretation of symbols are psychopathology, dreams, imaginations, forgetting, slips of the tongue and mistakes-Judgments are a process of comparison of concepts due to which the idea is formulated. This comparison occurs according to the type: positive — negative, simple — complex, familiar — unfamiliar concept. On the basis of a series of logic actions the conclusion (hypothesis) is drawn that is denied or proved by practice.

Symptoms and Syndromes

Disorders of thinking are classified according to rate, content, structure.

Disorders of thinking according to rate include:

- acceleration of thinking is characterized by acceleration of tempo of speech, gallop of ideas which at significant expressiveness of tempo have no time to be expressed (fuga ide-arum). Frequently ideas have a productive character and are associated with high creative activity. The symptom is characteristic of manias and hypomanias.

Wlieneveryou start thinking about something, at once the desire to speak about details appears, but then a new idea occurs. You have no time to write all this down, and if you try to do it, new ideas appear again. It is especially interesting at night when nobody interferes and you do not want to sleep. It seems that for an hour you may write a whole book.

- delay of thinking — the decrease of quantity of associations and delay of tempo of speech accompanied by difficulty in choosing words and formation of general concepts and conclusions. It is typical of depressions, asthenic symptoms and is also marked at the minimal disorders of consciousness.

Again I was asked about something, and I need some time to concentrate, because I cannot answer at once. I have told everything -and there are no ideas any more, I need to repeat everything all over again, until I get tired. Wlien I am asked about conclusions, it is necessary to think long, and it is better, if there is a home task.

- **mentism** — inflow of ideas which quite often has a violent character; usually such ideas are of different type and they cannot **be** expressed.
- shperrung (thought blocking) — «corking» of ideas, is perceived by the patient as breakage of ideas, sudden emptiness in the head, becoming silent. Shperrung and mentism are more characteristic of schizophrenia and schizotypical disturbances.

All this looks like a whirlwind at the moment of conversation or when you think, there are a lot of ideas, and they are confused, none of them remains, hut it is not better if they disappear. You have just uttered a word, but the following one is absent, and the idea has disappeared. Frequently you are at a loss because of it and you leave, people take offence, but what can be done, if you do not know, when it will occur.

To **disorders of thinking** according **to content** the following refers: affective, egocentric, paranoid, obsessive and supervaluable thinking.

- **Affective thinking** is characterized by prevalence in thinking of emotionally coloured representations, high dependence of thinking on associates, fast reaction of cogitative and inseparable from it emotional process to any, frequently insignificant stimulus (affective instability). The affective thinking is typical of patients, suffering from disturbances of mood (depressive or manic thinking). The system of judgments and representations at affective thinking is completely defined by the leading mood.

It seems that you have already solved everything for yourself But you get up in the morning - and all has gone, the mood is good-for-nothing and all decisions should be cancelled. Or it happens so tliat someone will upset you, and then you are angry with everybody. But it may be on the contrary: a triviality — someone will tell you that you look fine, - and the whole world is different, and you are happy.

- **Egocentric thinking — at** this type of thinking all judgments and representations are fixed on narcissistic ideal, and also on the fact what **is** useful or harmful to the person himself.

The rest, including social representations are swept aside. Such type of thinking is frequently formed at dependent persons, as well as at drug and alcohol abuse. At the same time egocentric features may be normative for children's age. *It is not clearly, what all of them demand from me; parents think that I should study, N., my girlfriend, - that I should look better. It seems that nobody really understands me. If I do not study, and do not work, and do not ivant to earn money, it means that I am not a person, but you see, I disturb nobody, I do only what I like. It is impossible to please everybody, and zvhat concerns the dog, let them walk with it, it loves them more.*

- Paranoid thinking — its basis is the delirious ideas combined with suspiciousness, distrustfulness, rigidity.

Delusion is a false conclusion arising on a painful basis, for example, it may be secondary after the changed mood, raised or lowered, hallucinations or initial as a result of formation of special logic, understandable only to the patient.

Too much around is combined into one link. When I was going to work, a man, dressed in all black, pushed me; then at work there were two suspicious calls: I raised a receiver and heard ominous silence and someone's breathing. Then in the entrance a neiv inscription «Again you are liere» appeared, then at home the water was disconnected. I went out

to the balcony and saio the same man, dressed up in a dark blue shirt. What do they all want of me? It is necessary to add an additional lock to the door.

- Delusional ideas do not make somebody change his/her mind; there is no criticism of them on the part of the patient. Cognitive connections supporting the existence of delusion by the principle of feedback look as follows:

o mistrust to others is formed; o «1 am, probably, not too friendly»; o «Therefore other people avoid me»; o «1 understand, why they do it»; o strengthening of mistrust to others. Stages of formation of delusion according to K. Conrad are the following:

o trema — a delusional presentiment, alarm, detection of a source of formation of a new logic chain;

o **apophena** — the formation of delusional gestalt — the formation of a delirious idea, its crystallization, sometimes a sudden inspiration; **o apocalypse** — the disintegration of the delusional system owing to therapy or affective exhaustion. According to mechanism of formation the delusion is divided into: **o** initial, connected to interpretation and construction of

stage-by-stage logic; o secondary, connected to the formation of complete images, for example, under the influence of changed mood or hallucinations;

o induced, at which the recipient, being a healthy person, reproduces the delirious system of the inductor — a mentally ill person.

By degree of systematization the delusion may be fragmentary y sterna tized.

According to content the following variants of delusional ideas distinguished.

o **Ideas of reference and significance** — the patient considers that associates notice him, look at him in a special way, hint by their behaviour at his special designation. He is in the centre of attention and interprets the environmental phenomena, earlier insignificant for him, as essential. For example, he perceives numbers of cars, glances of passers-by, casually dropped objects, words addressed not him as hints related to him.

It began approximately a month ago when I was returning from my business trip. In the neighbouring compartment tliere were people looking at me in a special way, with significance; they specially went into the corridor and peeped into my compartment. I understood: something was zvrong with me. I looked in a mirror and understood: the matter was with my eyes, they were as if crazy. Then at the railway station all as if knew about me, as if it had been transmitted over the radio «Now he is already here». In my street a trench liad been dug through almost up to my house, it was a hint that it was time to go away from there.

o **Ideas of prosecution** — the patient considers that he is being watched, finds a great number of proofs of shadowing, finds secret equipment gradually noticing that the number of persecutors increases. He asserts that persecutors irradiate him with special equipment or influence by hypnosis, operate on his ideas, mood, behaviour and desires. This variant of delusion of prosecution is designated by delusion of influence. The system of prosecution may include the ideas of poisoning. The patient considers that poison is added to his food, the air is intoxicated or objects are changed which preliminary have been poisoned. The

transitive delusion of prosecution is probable as well; in this case the patient himself begins to pursue the imagined persecutors, applying aggression against them.

It is strange that nobody notices it: the overhearing equipment is everywhere, it was told about it even on TV. You look at the screen of the computer, and actually it looks at you, there are sensors there. Wlto is it necessary for? Probably, for special services, which are engaged in recruiting people who should be engaged in secret drug traffic. Ecstasy is specially mixed with coca-cola, you will drink it and feel that you are driven. You are accustomed, and then used. I was taking a bath, and had not locked the door, I felt someone entered, left a package in the hall, a dark blue one, I do not have such, and it was smeared with something inside. You will touch it, and a mark will be left on the hand with the help of which you can be found everywhere.

- Ideas of grandeur are expressed by conviction of the patient that he has a power in the form of exclusive force, energy due to a divine origin, of great wealth, exclusive achievements in the sphere of science, art, politics, exclusive value of reforms offered by him. E. Kraepelin divided the ideas of grandeur (paraphrenic ideas) into: expansive paraphrenia at which the power results from increased (expansive) moods; confabulate paraphrenia at which the patient attributes to himself the former exclusive merits, but thus he forgets about the real events of the past, replacing them with the delusional imagination; systematized paraphrenia which is formed as a result of logic constructions; and also hallucinatory paraphrenia as the explanation of exclusiveness, «prompted» by voices or others hallucinatory images.

In ttte period of catastrophic inflation, when a salary was estimated by millions of coupons, patient O., 62 years, considered that he had an extremely valuable sperm, which was used for reproduction of the U. S. army.

High value of excrements is characteristic of the symptom of Moses at which patients assure that their feces, urine and sweat have the value comparable only with the value of gold.

Tlie patient also asserts that he is president of America, Byelorussia and the CIS. He assures tiiat a'helicopter is arriving at the village with 181 virgins, whom he is going to inseminate on a special point at a breeding factor}/. They will give birth to 5,501 boys. He considers that he has resuscitated Lenin and Stalin. He considers president of Ukraine to be the God, and of Russia - Kirig the First. For 5 days he inseminated 10 thousand virgins and for that he received from people 129,800 dollars, which were brought to him in bags, he hid the bags in a wardrobe.

- Ideas of jealousy consist in conviction of matrimonial betray, at the same time the reasons are characterized by absurdity. For example, the patient assures that his partner has sexual relations through a wall.

She betrays me everyzohere and with everybody. Even when I luatch her and agree with my friends about the control, it happens all the same. Proofs. Well, when I come home, there is a trace of a person in the bed, a kind of dent. On the carpet there are specks similar to sperm, the lip is bitten at a kiss. Well, and it happens at night: she gets up and goes as if to the toilet, but tlie door closes; what is she doing there? — / listened, groans were audible as if at orgasm.

- The love delusion is expressed in subjective conviction that she/he is an object of love of a politician, movie star or doctor, frequently of a gynaecologist. The specified person is quite often pursued and forced to reciprocal feeling.

My husband is a well-known psychotherapist, and patients, espedally women, pursue him constantly, but among them there is one who differs from other admirers. She steals even doormats from us and starts a row with me tliat he is incorrectly dressed or looks bad. Frequently slie literally sleeps in our yard, and it is impossible to get rid of her.

She considers me to be a fictitious wife, and she is a real one. Because of her we constantly change our phone numbers. She publislies her letters to him in newspapers, and describes different indecent things tltere, which she attributes to him. She says to everybody that she has a cliildfrom him, though she is 20 years older than lie is.

- Ideas of guilt and self-accusation are usually formed on a background of the depressed mood. The patient is convinced that he is guilty of his acts with respect to relatives and society, and court and execution are in store for him.

Because of the fact that at home I can do nothing, all is bad. The children are dressed not so well, the husband will soon abandon me, as I do not cook. I think it is punishment for sins, if not mine but of my kin. I have to suffer to expiate them. I ask the family to do something ivith me instead of looking with such reproach.

- Hypochondriacal delusion — the patient interprets his somatic sensations, paresthesias, cenestopathies as manifestation of incurable disease, for example, AIDS, cancer. He demands examination, expects death.

77ns *spot on the breast was small earlier and now it is growing. It is melanoma. Yes, histology was made to me, but, probably, incorrectly. The spot itches, and metastases spread from it to the Iteart, I Ixave read in the encyclopaedia that there are metastases into the mediastinum. That is why it is difficult to breathe for me, and there is a lump in the stomach. I have already written the will and I think that everything will soon be over, as weakness increases.*

- Nihilistic delusion (Cotard's delusion) — the patient assures that he does not have internal organs, they «have decayed», the similar processes occur in the environment as well: the whole world is dead or is at various stages of decomposition.
- Delusion of performance is expressed in representations that all events of the environment are specially arranged, as at the theatre, the personnel and patients at the department are actually disguised officers of special services; the behaviour of the patient is dramatized, which is shown on TV.

/ have been brought here for interrogation, ostensibly you are a doctor, but I see that under the white gown the epaulets are contouring. There are no patients here, all is arranged. May be, a special film on tlie screen version of intelligence service is taken down. Wlrat for? To find out the truth about my birth from me, that I am not the person whom I give myself out. It is not a pen in your hands, but a transmitter, you are writing, but actually - transmitting an encryption.

- Delusion of doubles consists in conviction of the presence of the positive or negative, that is, embodying negative features of the person, the double, who may be at a significant distance and may be connected with the patient by hallucinatory or symbolical designs.

Patient K. assures that his wrong behaviour is not at all his beliav-iour, but his twin's, who was abandoned by parents and appeared abroad. Now he acts on his behalf in order to enlist him. «He is precisely like me, and even dressed in a similar way, but ahvays performs acts whidi I would not dare perform. You say that it was I who broke tlxe window at home. It is not so, at that time I was in quite a different place».

- Antagonistic (manichean) delusion — the patient is convinced that the whole world and he himself are the arena of struggle of the good and the evil — the God and the devil. This system may be confirmed by mutually exclusive pseudo-hallucinations, that is, voices that argue with each other for possession of the person's soul.

/ go to the church twice a day and constantly have the Bible with me because it is difficult for me to understand everything. First I did not know, ivliat is correct and what is a sin. Then I have understood tliat there is the God in everything and there is the devil in everything. The God calms me and the devil tempts me. For example, I drink water, have made a superfluous drink - it is a sin, tlie God lielps to expiate it - I pray, but then two voices have appeared - one is God's, the second is devil's, and they start arguing with each other and struggling for my soul, and I have got confused.

- Dysmorphophobical delusion, delusion of physical defect — the patient (a teenager is more often) is convinced that the form of his face is changed, there is an anomaly of the body (more often of genitals), insists on surgical treatment of anomalies.

/ am in a bad mood because I constantly think that my penis is small. I know that at the time of erection it increases, but all the same I think about it. Probably, I shall never have a sexual life, though I am 18; it is better not to think about it. May be to be operated on now, until it is not late. I have read that it can be enlarged by special procedures.

- Delusion of obsession consists in the fact that the patient feels himself transformed into an animal, for example, wolf (lycanthropy), into a bear (Lokis symptom), into a vampire or inanimate object.

First there was a constant borborygmus like switching on the ignition, then between the stomach and the bladder a space like a cavity with fuel was formed. These ideas have transformed me into the mechanism, and inside the network of interlacing wires and pipes was formed. At night a computer has been built in behind the eyes, the screen - inside the head, which showed fast codes of luminous dark blue figures.

All forms of delusion have similarity to mythological designs (mythologemas), which are embodied in archaic legends, eposes,

myths, legends, plots of dreams and imaginations. For example, ideas of obsession are present in folklore of the majority of countries: a girl — a werewolf of a fox in China, Ivan-tsarevitch — a grey wolf, Tsarevna-frog in the Russian folklore. The most frequent plots of delusion and appropriate mythologemas refer to the ideas of interdiction and its violation, struggle, victory, prosecution and rescue in the histories of origin, rebirth, including a wonderful one, death, destiny. Thus, the character plays a role of a wrecker, donor, magic assistant, sender and hero, as well as a false hero.

The delusional thinking is typical of schizophrenia, paranoid psychoses and induced delusional disturbances, as well as organic schizophrenoform psychoses. Equivalents of delusion at children are delusion-like imaginations and supervaluable fears. At delusion-like imaginations the child speaks about a fantastic invented world and he is sure that it really exists, replacing a reality. In this world there are kind and malicious characters, aggression and love. Like delusion, it is not criticized, but is very much variable, as any imagination. Supervaluable fears are expressed in fears in relation to objects, which themselves do not have such a phobic component. For example, a child may be afraid of a corner of a room, part of the parents' body, radiator, fortochka. A complete picture of delusion more often occurs in children only after nine.

The supervaluable thinking includes supervaluable ideas which are not always false conclusions, they develop at special stenic persons, however, they dominate in their mental life, superseding all other motives, criticism to them is absent. Examples of super valuable formations are: ideas of revolutionary transformation of the world, idea of invention, including the invention of a perpetuum mobile, elixir of youth, philosophical stone; ideas of physical and moral perfection with the help of infinite number of psychotechniques; ideas of barratry and struggle against a concrete person with the help of proceedings; supervaluable ideas of collecting for which realization the patient completely subordinates all his life to the subject of passion. Psychological analogue of supervaluable thinking is the process of formation and coming into being of love. The supervaluable relation with dominant fixing is shown in relation to the virtual computer environment when it almost completely supersedes a material reality in the sphere of interests. The supervaluable thinking is typical of paranoid personality disorders.

/ liave quarrelled with my relatives and wanted to live separately. But it is completely impossible, as I have no place to take out the collection. They accuse me of spending all money on old and empty bottles, which are everyzvhere, even in the toilet. There are bottles of the times of Sevastopol siege by Englishmen and Frenchmen on which I spent the whole fortune. What do they understand of it? Yes, I have struck the wife because she has broken, ostensibly casually, a flask, which I got with great difficulty. But for that I was ready to kill her, you see, I have exclianged it for the whole collection of beer bottles.

The obsessive thinking is characterized by stereotype repeated ideas, representations, memories, actions, fears, rituals which arise against the patient's will, usually on a background of anxiety. However, as against delusion and supervaluable ideas there is a full criticism to them. The obsessional ideas may be expressed in repeated memories, doubts, for example, memories of the heard melody, insult, persuasive doubts and rechecks of the switched off gas, iron, and closed door. The annoying desire is also accompanied by obsessional ideas, which should be impulsively executed, for example: obsessive larceny (kleptomania), arsons (pyromania), suicide (suicidomania). The obsessional ideas may result in phobias, that is, obsessive fears, for example: fears of crowded places and open spaces (agoraphobia), of closed spaces (claustrophobia), pollution (misophobia), fear to catch a concrete disease

(nosophobia) and even fear of fear (phobo-phobia). Rituals avoid the occurrence of fears.

> *In childhood Nick before going to the examination had to dress first, and then to undress, to touch me 21 times, and then still to wave goodbye to me three times from the street. Then it became more difficult. He washed for 20-30 minutes, and then spent hours in the bath. He spent half of my salary for shampoo. There were cracks on his hands because of water: thus he rubbed his palms by sponge, thinking, that in such a way he wasltes off infection. Besides, he was afraid of sharp objects and demanded to take them away from the table not to be cut. And to eat for him was the whole torture. He puts a spoon on the left, then on the right, then slightly equals it in relation to the plate, then equals the plate and so — indefinitely. When he puts on trousers, trouser creases slwuld be equal, but for this purpose he should climb the sofa and let trousers down from the sofa. If he cannot manage something, everything is repeated alt over again.*

The obsessive thinking is typical of obsessive-compulsive neuroses, anancastia.

Disturbances of thinking according to structure may be subdivided into the change of system of logic (paralogical thinking), change of smoothness and coherence of thinking.

The paralogical thinking (according to Ye. A. Shevalev) is subdivided into prelogical, autistic, formalizing and identifying. Each of these types of thinking is based on its own logic.

The prelogical thinking is an equivalent of the mythological thinking described above. At psychopathology such thinking is characterized by filling images and representations with ideas of sorcery, mysticism, psychoenergetics, religious heresy, sectarianism. The whole world may be understood in symbols of poetic, sensual logic and explained proceeding from intuitive representations. The patient is sure that he should behave this way and not otherwise, on the basis of signs of nature or own presentiments. Such thinking may be considered regressive as reminds of children's thinking. Thus, the pre-logical thinking operates with archaic logic, characteristic of ancient peoples. It is typical of sharp sensual delusion, hysterical disorders of personality.

> *All these troubles ore connected with the fact that I have been put a spell on. I went to the psychic, and he said that it was necessary to put the screen from the devil eye and magic spells, and gave me some herbs. It helped at once, but then the neighbour said that magic spells are repeated, and showed the soiled door and the thrown up bunch of hair. I went to the church and asked to consecrate the flat as the troubles proceeded, and the husband began to come home drunk each evening. It does not lielpfor long. It might be strong magic spells. I went to grandmother Marta, who gave me the charged photo, which I hid under a pillow of the husband. He slept soundly, but got drunk in the evening again. Against a strong evil eye probably a strong «energetic» defense is necessary.*

The autistic thinking is characterized by absorption of the patient in the world of own imaginations which in a symbolical form compensate inferiority complexes. At external coldness, detachment from the reality, indifference a rich, freakish and frequently fantastic private world of the patient amazes. Part of these imaginations is accompanied by visualized representations, they fill in a creative production of the patient, may be filled in with the deep philosophical contents. Thus, behind the colourless walls of the personality there are magnificent feasts of emotional life. In other cases at the change of emotional condition the autistic patients may display the creative imagination openly. This phenomenon is designated as «autism inside out». At the autistic child relatively

rich imaginations and even great successes in separate abstract fields of knowledge, for example, philosophy, astronomy, are masked by avoidance of corporal contact, glance, incoordinated motility and motor stereotypes. One of the autistic men has symbolically expressed his world in the following way: «By the ring of self-creativity to be strongly secured from outside». The autistic thinking is constructed on the basis of the phantasm logic which is clear if to proceed from the unconscious individual motivation, and is indemnification of high sensitivity to stress. Therefore the world of autism is an original flight from a severe reality. It is typical of schizophrenia, schizotypic and schizoid personality disorders, though it may also be met at accentuation, that is, at mentally healthy people.

> *My son is 21, and I am constantly busy with him, as he has always been an unusual boy. He finished school, but did not know anybody in his class. I myself settled the question about his marks. He never goes out alone, only with me. He reads books only about birds. He may sit hours on the balcony watching sparrows or titmice. But why is it necessary to him, he never speaks. He keeps diaries and has used a number of thick copybooks. It is written in them, «it flew up, sat on a branch and smoothed its belly by a leg three times«; there is a drawing of a bird nearby, and these drawings with different comments are in all copybooks. I persuaded him to enter the university, but he refused - it is not interesting to him. When we go for a walk, he stops at some tree and stares at birds, then writes something down. He writes nobody about his observations and does not want to speak about them, he does not watch TV and does not read newspapers, lie does not know, how much bread costs.*

The formalizing thinking can also be named bureaucratic. Cognitive life of such patients is filled up with rules, regulations, and schemes, which are usually taken from a social environment or connected with upbringing. It is impossible to exceed the bounds of these schemes, and if the reality does not correspond to them, then such persons experience anxiety, protest or striving for edifications. It is typical of paranoid personality disorders and Pick's dementia.

> *All over the world there should be order. It is completely incorrect that some our neighbours return home late, I fight with it and have made the lock with keys on the entrance door. Everything that we have adiieved earlier is connected with the order, but now there is no order. Everytohere it is dirty because they do not clean; it is necessary to restore the state supervision over everything for people not to wander about the streets. They do not like that at work I demand of everybody to report about who has gone where and when will return. It is impossible without that. There is no order at home either, every day I hang up the scheme, haw much is spent and how many calories the wife and the daughter should use depending on their weight.*

The symbolical thinking is characterized by production of symbols understandable only to the patient, which may be extremely precious and expressed by made-up words (neologisms). In other words, if the usual complex concept (symbol) may be interpreted proceeding from the features of tulture (collective unconscious), religious allegories, semantics of group, at symbolical thinking such interpretation is possible only on the basis of personal, deeply unconscious or previous experience. It is typical of schizophrenia.

> *// is not for nothing tliat I liave decided that my parents are not real. Tlie matter is that the truth is ciphered in my name Kirill. It consists of words «Kir» — it seems, there was such king, and «ill»*

or «silt», that is found in a bog. It means I was simply found, and my name is real, and my surname is not.
Patient L. creates a special symbolical font constructed on inclusion of «feminine in the understanding of a letter«: a *— she is anesthetizing,* s *- she is shaving,* c *- she is carrying out, I - she is looking, o - she is obtaining,* n *— she is natural,* **v** *— she is vital,* g *- she is greeting.*

The identifying thinking is characterized by the fact that in his thinking the person uses senses, expressions and concepts actually belonging not to him, but other, frequently authoritative, prepotent persons. This variant of thinking becomes the norm in the countries with the totalitarian regimen, demanding constant references to the authority of the leader and his understanding of this or that situation. The given thinking is caused by the mechanism of projective identification. It is typical of dependent and dissocial personality disorders.

/ try to explain to them: you should not act in such a way, because you will be condemned and will not be understood. By whom? By everybody. It is necessary to beliave in such a way as to be like others. When I am called out «upward», I always think, what I have done in a wrong way, what they have found out about me, everything seems to be in order. I am not worse and not better than others. I like songs by singer S., have bought a dress, like hers. I like our president - he is a very accurate person, says everything correctly.

Changes of smoothness and coherence of thinking are shown in the following disturbances.

The amorphous thinking is expressed in the presence of coherence by sense of separate parts of the sentence and even separate sentences at escaping the general sense of the said. The impression is obtained that the patient «is floating» or «going into unnecessary detail^ being incapable of expressing the general idea of the uttered or answering a question directly. It is typical of schizoids.

You ask me when I left the institute. Well, it was as follows. The situation developed in such a way that I zvas not eager to study; gradually somehow... But it does not matter... Right after admission there was a disappointment, and I stopped liking everything. So, day by day I wanted to change something, but what? - I did not know, and all ceased to interest me, and I stopped to attend classes because of this disappointment. Wlien it is not interesting, you see, there is no need to study further, better to work, though there were no any special troubles. By tlie way, what Imve you asked?

The concrete thinking, characteristic of persons with intellectual retardation, is expressed by primitive speech with formal logic. For example, to the question «How do you understand the proverb «As the tree, so the fruit», he gives the answer, «Apples always fall near a tree». It is typical of intellectual retardation and dementia.

The reasoner thinking is expressed in «philosophizing» concerning the question instead of the direct answer to the question. Thus, the spouse of one patient speaks about her husband, «He is so clever that it is completely impossible to understand what he is speaking about».

To the question, «How do you feel?» the patient gives the answer: «lt depends on what you understand by the word «feelings». If by this word you understand your sensations of my feelings, then your feeling will not correspond to my ideas on your feelings».

It is typical of schizophrenia and schizoids.

The detailed thinking is characterized by detailed elaboration, viscosity, jamming on separate details. At answering even a simple question the patient tries to go deep into the smallest details indefinitely. It is typical of epilepsy.

> *I am disturbed by headaclies. Well you know, in this place of the temple it slightly presses, especially when you get up or right after you lie down, sometimes after meal. Such slight pressure in this place happens, when you read much — then it slightly pulses and something beats... Then I feel sick, it happens at any time of the year, but especially frequently in autumn, when you eat much fruit, and in spring it also occurs before rain. Such strange nausea from below upward — and you are swallowing. Though not always, sometimes, it happens as if a lump stands in one place which can't be swallowed.*

The thematic slide is characterized by a sudden change of the theme of conversation and absence of connection between the uttered sentences. For example, to the question «How many children have you got?» the patient gives the answer, «I've got two children. It seems I have overeaten this morning». The thematic slide is one of the features of a special structure of thinking and speech — schizophasia, in which a paralogical connection between separate sentences is probable. In the above-stated example, in particular, the specified connection is established between the children and their refusal of meal in the morning, therefore the patient himself has eaten it.

The incoherent thinking — at such thinking the connection between separate words in the sentence is absent, the repetitions of separate words (perseveration) frequently appear.

Verbigeration (catalogia) is a disorder of thinking at which the connection not only between words but also between syllables is broken. The patient may pronounce separate sounds and syllables stereo-typically. Various degrees of incoherent thinking are characteristic of schizophrenia.

Speech stereotypes may be expressed both by repetitions of separate words and phrases or sentences. Patients may tell the same stories, jokes (a symptom of a gramophone record). Sometimes phrases are accompanied by attenuation, for example, the patient makes a phrase: «A headache disturbs me sometimes. A headache disturbs me. A headache disturbs. A headache. A head». Speech stereotypes are characteristic of dementias.

Coprolalia is prevalence in speech of unprintable expressions and phrases, sometimes with full substitution of usual speech. It is characteristic of dissocial personality disorders and is manifested at all acute psychoses.

Pathology of Memory and Attention

Definitions

Memory is the process of accumulation, retention and reproduction of information. The following are distinguished: dysmnesia — hypermnesia, hypomnesis, amnesia, the phenomena of displacement and paramnesia — confabulation, pseudo-reminiscence, echomnesia, palimpsest.

Attention is a direction and a degree of concentration on object and activity. To pathology of attention the following refers: instability, slowness of switching over, insufficient concentration, deficiency of attention.

History of the Question, Norm and Evolution

Process of memory interests everybody in connection with interest to ability to training and retraining. Memory consists of the

phenomena of accumulation, retention and perceiving new information. These properties of memory are characteristic of all alive and lifeless nature. Memory is accumulated in culture in the object world, in data carriers, in particular, books and computers. A unit of measurement of memory is one bit that reflects the presence (1) or absence (0) of unit of information. In biological sense memory is divided into short-term and long-term. The long-term memory is fixed in the structure of DNA, and short-term — in the structure of RNA.

The brain organization of memory is connected to Papetz circle. The Papetz circle includes the activating influence of reticular formations, tonsils, and septum on a feedback between the cortex, hippocampus, hypothalamus and thalamus. Accordingly, disturbances of attention are basically connected with reticular formation, derangement of memory — with the cortex, hippocampus.

The neuronal «trace» as a morphological substratum is presented by axon-axon connections, as well as connections between neuronal bodies, which number increases as a result of training. Neu-romorphological and functional pattern of an image is called an en-gram. It may be formed extremely as a result of instant memorizing

(imprinting). This phenomenon was first found by K. Lorenz, who stated that just born gooses imprint the first seen image as parental. At mammal the fast imprinting of the image of the child as native is promoted by oxytocine, which is produced as a result of compression of the cervix of the uterus at the last stage of labour. The sensory memory connected with imprinting of the visual, tactile, olfactory, audio images is distinguished.

The short-term memory is transformed into long-term, that is promoted by the processes of repetition, the emotional importance of the remembered, as well as positions of the remembered among other phenomena. Reproduction is promoted by such psychological phenomenon as transfer, which essence is expressed in associating of reproduced with a similar phenomenon or event in the past. It means

that a variety of forms of training in childhood promote a freer reproduction of information at mature and old age. In biology the specific memory which exists due to transfer of separate complexes of genes during evolution, as well as the genetic-cultural memory expressed by memes — units of connection between genetic structures and the results of their cultural embodiment are distinguished. A special eidetic memory exists, which allows reproducing images fancied earlier as a whole. Unconscious memory contains the latent information, which is reproduced after overcoming the resistance and other forms of psychological protection. It is considered that attention depends on interest, skills of attention and temperament. It has stability, concentration, transfer factor and volume.

Symptoms and Syndromes

Among derangements of memory dysmnesias are distinguishred:

Hypermnesia is characterized by involuntary inflow of memories of the past, the increased ability to imprinting, long retention of information and easiness of its reproduction. Hypermnesia is characteristic of some paroxysmal states, intoxications by psychoactive drugs, hypomania. As a symptom they may be at mentally healthy persons, in particular, such hypermnesia was at well-known pianist S. Richter who in many years remembered how the car in which he was taken to the concert many years before looked like and how the hands of the boy turning over pages of his score at the performance looked like.

Hypomnesia — weakness of memory resulting in difficulties of memorizing, retention and reproduction. It is characteristic of asthenic conditions, depression, and organic disturbances.

Amnesia is the loss of fragments of memory. The following are distinguished:

Dissociative amnesia characterized by forgetting the emotionally significant traumatic events, is a special case of extreme replacement as natural property of memory to replace memories for traumatic event to the unconscious. Reproduction of memories in this case is possible in the course of psychoanalytic process or in hypnosis.

Retrograde amnesia is the loss of memory for events previous to trauma (more often — craniocerebral).

Anterograde amnesia is forgetting the events occurring after stress or a craniocerebral trauma.

Fixating amnesia is forgetting the current events, including conterminous to trauma, more often — to the events of the current day.

Progressing amnesia is characterized by the consecutive destruction of memory from the present to the past, thus events of the far past are remembered better than events of the present or nearest past. The law of the loss of memory from the present to the past is determined by Ribout's law.

Thus, disturbance of memory occurs at the majority of organic atrophic processes of the brain, in particular Alzheimer's disease and vascular dementia.

Reproduction of traces of memory may be broken as a result of speech disturbance — in these cases the patient cannot name the object because he does not remember how it is called, but remembers, what it is necessary for (amnestic aphasia).

- Say, what is it? - A key is shown.
- It is... I do not knozv, I do not remember.
-But what do they do with it?
- They do it in such a way, - he turns his Imnd, - close or open.
- And what is it? - A watch is shown.
-It is... I do not know. It seems to know time.

Besides, reproduction of memory may be disturbed as a result of disturbance of recognition of an object (sensory aphasia) or disturbance of identification of applicability, sense of objects or phenomena (semantic aphasia). Sensory and amnesic aphasias are characteristic of local focal organic lesion of the brain, and semantic — of schizophrenia However, there are analogues of these psychopathological phenomena in usual life, for example, we may use objects, intended by their creators for other purposes, different from those we use them for.

Paramnesias are processes of distortion of memories. They include:

- Confabulation is replacement of sites of the lost memory by imaginations or fantastic delirious constructions (confabulate delusion). In these cases the patient speaks about ostensibly accomplished by him in the past feats, achievements, riches or crimes.

You ask to tell you about the events of the last year Well, I was taoarded and given much money, I hid it Besides, I was called to the Kremlin, and the president said, «Well, it is good that you, Nickolai, is so courageous and you have rescued us», — and kissed me. Tltat's all what happened last year. Later on I dug out the money and bought a big plane, and flew to Moscow again to receive a gold medal.

- Pseudoreminiscences — replacement of sites of the disturbed memory by a fragment from another site of the past, which really occurred to the patient. The specified memories remind of mess of dates. A combination of fixating amnesia and retroanterograde amnesia with confabulations and pseudoreminiscences is typical of Korsakoff's syndrome.
- Cryptomnesia — patients ascribe to themselves memories and data received from other persons, from literature sources. Sometimes these phenomena are called involuntary plagiarism. It is typical of organic disturbances and delusion.
- Echomnesia — sensation that the event occurred earlier in the past or was seen in dreams and is further repeated. Supervaluable significance is usually attached to such events. It is typical of delusion and organic disturbances, in particular of delirious interpretation of the past.
- Palimpsest — there is a double description of the given symptom. The first is as the short-term loss of memory at alcoholic toxic inebriation with narrowing of consciousness and at pathological affect. The other definition of palimpsest is connected to simultaneous reproduction of two equivalent memories which fall on the same period of time, thus, the patient hesitates, which of them is essential and real. It is marked at disturbances of multiple personality, but is also observed in the course of psychoanalytic process.

It seems that yesterday something happened to me. But what - I do not knoio exactly. On the one hand, as if I went home and came correctly, hut for some reason lost documents, and my jacket was torn. I recall something: as if we got togetlier with friends, then we Iwd a drink, and I was going to leave for home, and even, it seems, was going by bus. No, it was some otlier time, not yesterday; I could not go by bus yesterday - it was in a village, there are no buses there. So it means that it was not yesterday, and yesterday I probably got home on foot.

Attention is a direction and degree of concentration on object and activity. To the pathology of attention the following refer: instability of attention which is characterized by fast switching of attention fixation, distractability, inability to concentrate long on any work. It is typical at syndromes of disinhibition in children, at hypo-mania and hebephrenia.

- Slowness of switching (rigidity) is most frequently marked in patients with organic disorders and epilepsy. The patient cannot distract from the chosen theme, sticks to it, returns to it again and again.
- Insufficient concentration is characteristic of asthenic conditions and fatigue, minimal disorders of consciousness. The attention has a «floating» character, prolonged fixing is absent, that is expressed in peculiarities of behaviour (absent-mindedness).

Motor Disturbances and Disturbances of Will

Definitions

Volition is aspiration to purposeful activity which is realized consciously_in the achievement of the purpose and unconsciously — in the instinctive activity. Externally the will activity is expressed in movement. The disorder of food (bulimia, anorexia, coprophagy), of sexual (decrease, increase, paraphilia), parental, agonistic instincts, as well as migratory, hierarchical, comfort, game, territorial and research instincts are distinguished. Motor disturbances are manifest* i in excitation, stupor and motor insufficiency.

History of the Question, Norm and Evolution

The will activity and its expression in motor acts are studied by methods of psychology, physiology and ethology. The volition is defined as aspiration to achieving the purpose by means of its comprehension or unconsciously, that is instinctively. Motives of achievement of the purpose may be individual, group and social, in this sequence they develop in ontogenesis. Stages of volitional action include: the purpose and aspiration to achieve it, comprehension of opportunities of its achievement, occurrence of the motives supporting or rejecting these opportunities, struggle of motives and choice — acceptance of one of the opportunities as the decision, realization of the accepted decision.

The instinct is a biological base of volition. It consists of the following stages: a motive demanding satisfaction, search of the object of satisfaction and a final motor act. Movements which present an instinct, as considered by K. Lorenz, develop into complexes of the fixed actions which arise in evolution as phylogenetic adaptations intended for a survival of a species. The instincts of dream, food, sexual, comfort, hierarchical, agonistic, territorial are distinguished, as well as parental, of support, possession, migration, research and social instincts. Each instinct is connected with concrete neuronal brain network and is manifested by precise sequences of behaviour. The displays of instincts of the person are controlled by culture in the course of historical development and ontogeny. All instincts of the person may be observed in phylogeny. The basic mechanisms of realization of instincts are the ways of their direct display in the absence of an obstacle for realization of behaviour; reinforcement when the activity is increased at the increase of an obstacle; weakening («vacuum of activity«) under the influence of an obstacle.

Other mechanisms are:

- readdressing when the object varies in the system of the same drive,
- displacement when there is a switching over to other drive,
- ritualization at which various stages of displays of behaviour are embellished,
- ambivalence, when the purpose is opposed to another purpose,
- regress, when early features of displays of behaviour are manifested ontogenetically,
- imitation, at which there is imitation of behaviour of other people or groups of people. Each individual has all mechanisms, but at mental pathology there fixation on any one mechanism, and plasticity of behaviour is lost.

5 vmptoms and Syndromes

Complete changes of will activity are manifested in hyperbulia, hypobulia, parabulia, but separate changes in the spheres of instincts are described depending on the type of instinct.

Hyperbulia is understood as involvement in incentive, which is notivated by the increased attraction that is manifested in the vigorous activity and disinhibition of all drives. This condition is typical of manias.

For hypobulia, on the contrary, the reduction of motives, desires and drives, as well as motor activity is characteristic. Subjectively patients mark this reduction of activity and absence of interest in all manifestations of life (anhedonia), the internal interpretation of the condition corresponds to the loss of energy, therefore the given condition is called as a reduction of energy potential.

At abulia all the desires and drives are absent: even to feed the patient, the willed efforts of associates are required. He answers questions briefly and monosyllabically, the facial expression is deprived of liveliness. He is usually not interested in anything; and

spends all the time in bed. Abulia is encountered at schizophrenic defect. This condition is close to vegetative coma when the patient, being in bed, evacuates his bowel without control, eats only the food offered by the person taking care of him, and refuses speech activity. Vegetative coma is a final stage of dementia.

The increase of food instinct — bulimia — is accompanied by gluttony; patients eat much, but frequently do not gain weight. It is typical of endocrine pathology and dementia. The decrease of food instinct — anorexia — is expressed in refusal of food or in selective monotonous meal. For example, the patient's diet may consist of only apples or only bread. Anorexia is marked at endocrine pathologies and dissociative disturbances, as well as at depressions. At psycho-pathology eating of inedible — coprophagy is also met: for example, patients with intellectual retardation may eat fine stones, clay, drink urine.

The increase of sexual instinct is called in men satyriasis, in women — nymphomania. It is characterized by chaotic frequent sexual relations with the increased risk of venereal diseases natural to these conditions. It is peculiar to manias, episodes of use of psychoactive substances, organic brain damage. The decrease of sexual instinct is called impotence in men and frigidity in women. It is possible to read about these symptoms in detail, as well as about distortions of a sexual drive — paraphilia in the corresponding chapters. The question of referring homosexuality to paraphilia is debatable. The matter is, that the risk of development of homosexuality makes up about 10% in men and women. This fact, as well as associating homosexuality with normative sexuality of adolescence have resulted in recognition of homosexuality as the norm and its exception from ICD 10.

The increase of research instinct is defined as neophilia, that is, undifferentiated curiosity, which is manifested at the slightest pretext and under any circumstances and is frequently inadequate. The patients ask a lot of questions, are interested in everything and constantly want to be in the know of all events. It is characteristic of manias. An opposite condition — neophobia, is typical of schizophrenic defect, schizotype disturbances and schizoid personality disorders. Thus, at the moment of conversation the patient does not look at the face of interlocutor. He turns away and speaks aside, avoids corporal contact and aspires not to use new things, refers to any news with mistrust and avoids new routes of moving.

The decrease of parental instinct is manifested in coldness of parents in relation to their children; they strive for solving their problems, and do not pay attention to their child. It is typical of schizoid personalities. In another case the opposite condition is marked, *i. e.* the parental hyperprotection which is noticeable at supercontrol and superinvolvement of parents in destiny and life of the child. Hyperprotection may result from anxious personality disorders. The distortion of parental instincts is manifested in cruelty of parents in relation to children or cruelty of children to their parents. The similar disturbances are characteristic of dissocial personalities.

The decrease of agonistic, *i e.* connected with conflict, instincts is manifested in autoaggression — suicide. Though the overwhelming majority of suicides are committed by mentally healthy persons at the moment of loss of object of love, friendship, financial crash, nevertheless the basic place among the pathological conditions contributing to suicide is taken by depressions and the use of psychoactive substances, especially alcohol. The increase of agonality results in homicide, /. *e.* in murder. Among murderers the percentage of persons committing the given crime on pathological, in particular delirious, motives is rather high.

Distortion of agonality results in pathological passion to larceny (kleptomania) and to arsons (pyromania).

The sensation of dominancy and rank by the person may be increased — this is typical of manias. The patient is convinced that he deserves a considerably higher position than that he occupies. On the contrary, at depressions he considers himself to be useless and unnecessary and as a result inadequately reduces his rank, losing social contacts. Persons with anomalies of personality and delusion may distortedly perceive his place in the society as «special» or «mes-sianic».

The increase of migratory instinct results in vagabondage and dromomania. At vagabondage a constant change of residence is frequently caused by escape from persecutors or prosecution of some person, for example for erotic motives. At dromomania migrations are not motivated, as they occur on a background of the changed condition of consciousness. The patient in this case cannot say, why he has moved and how he appeared in this place. The reduction of the need for migration results in the fact that the person does not leave his habitation due to fear of visiting open and crowded places (agoraphobia) or delirious fear.

The increase of comfort instinct is peculiar to misophobia — fear of pollution at which the patient spends a lot of hours washing stereotypedly his body or hands. It is typical of obsessive-compulsive disturbances. But at abulia and dementia any interest in cleanliness of the body is lost, both untidiness and negligence become steady.

The instinctive attitude to own territory also varies at some psy-chopathological conditions. For example, at fear a lot of locks on the door and lattices on the windows appear, at alcoholism and narcomanias the habit to close the door is lost in general, and the apartment becomes similar to a cave or a hole.

Many researchers specify an instinctive character of game behaviour. Really, at manias the game behaviour may obtain the character of persistence and dependence on game (ludomania), at oligophrenia stereotyped games are marked, and at autism children prefer not game objects, for example radio components or coils, to beautiful and interesting toys.

Motor disturbances are presented by the following groups:

- Psychomotor excitation depending on its causes is divided into psychogenic, epileptic, paranoid and catatonic, as well as delirious, hebephrenic and maniac excitation.
- Psychogenic excitation arises immediately after a mental trauma, is accompanied by replacement of separate events of the trauma, other events are clearly pronounced in speech of the patient, the alarm is expressed, palpitation is possible. Excitation usually stops after disappearance of a mental trauma.
- Epileptic excitation is accompanied by the narrowing of consciousness, twilight states of consciousness and dysphoria.
- Paranoid excitation has a purposeful character and is connected to the objects included in delusion; actually the symptomatology of delusion sounds in the structure of excitation.
- Catatonic excitation has not a purposeful and impulsive character, is accompanied by mutism or broken speech.
- Delirious excitation is accompanied by inflow of visual frightening images, disorientation in place and time.
- Hebephrenic excitation proceeds with foolishness, clownery and mimicking, grimaces, mannered movements.
- Manic excitation is characterized by the increase of speech tempo, elevation of mood, high speech activity.

Stupor (freezing) and lethargy. Psychogenic, catatonic, hallucinatory, depressive, oneiroid stupor is distinguished.

- Psychogenic stupor is marked after some loss, accident; patients reply tersely, the mimicry of grief and confusion is appreciable, the stupor disappears after the loss of acuteness of trauma.

- Catatonic stupor is characterized by freezing, silence (mutism), negativism which are expressed in motor counteraction to movements, for example to intention to raise a hand, the symptom of an air pillow (the lifted head remains in the same position after removing the pillow), the cogwheel symptom (jerky extension movements at attempt to unbend a hand), catalepsy (the lifted extremity stiffens), Pavlov's symptom (the patient answers the whispered speech, but does not answer the usual one).
- For hallucinatory stupor indirect signs of hallucinations at the external catatonic motility are peculiar.
- Depressive stupor may also be accompanied by mutism and negativism, however, in the face there is an expression of grief, and there are anamnestic data on the development of depression at the initial stage.

Imitation disturbances are expressed in echolalia (repetition of words of the interlocutor) and echopraxia (repetition of movements). The given symptoms are marked at catatonia and frontal atrophies (Pick's dementia). Motor insufficiency or motor infantilism is marked at endocrine pathology, as a result of deprivation, for example, after long imprisonment, at frontal and extrapyramidal insufficiency. It is expressed by awkwardness, superfluous incoor-dinated movements, incapability to perform some actions, for example, to run, jump, swim fast or to write smoothly.

Pathology of Emotions

Definitions

Emotions are mental conditions reflecting the reaction of the organism to the change of the environment or another person. The pathology of emotions is expressed by the decrease of mood — depressions, elevation of mood — manias, as well as dysphoria, ecstasy, moria, anxiety, instability of affect, emotional lability.

History of the Question, Norm and Evolution

The behaviour and perception are accompanied by subjective experiences, which are called feelings, changes of mood or emotions. The emotional answers are found out at discussion of the problem of feeling. In all cultures feelings are identified by a similar image, for example, anger, hatred, love, envy, jealousy, fear, a bad state of health. It is noteworthy, as we distinguish emotions unequivocally. Thus, we are not trained in emotions as such, but we learn to love and hate an exact object. The fact that we can speak about our feelings to others and be understood by them testifies to the fact that emotions have a biological basis.

Emotions are connected to the organization and structure of the neuronal network of the viscerolimbic system; therefore the data on functional operating at this level can be received proceeding from the answers to tests. These data allow to find out the connection of emotions with concrete behaviour.

Biochemical processes in the brain cause subjective experiences. Social influence activates cerebral chemical processes, and this is manifested in emotions. At perception of a smile the cerebral chemical processes as a whole are activated, it causes friendly mood, and a smile appears in response. This is also true for crying which causes crying or sympathy. Social signals, such as the facial expression and vocalization, include chemical processes, and it makes us express identical emotions and display the same expressions as our social partner does.

M. R. Liebowitz has published a number of interesting considerations about the brain chemistry of love.

Emotions are subjective experiences, but the presence of self-checking of emotions shows that they are accompanied by specific expressive movements (muscular actions). We may write down the physiological reactions typical of individual emotions. It is also possible to collect the results of estimation by other people of subjective expressions within the limits of different cultures and to notice that they are similar. At blind and deaf children the emotions are expressed in the same way as at usual children, hence, their expression is congenital (I. Eibl-Eibesfeldt). In a literary language emotions are used metaphorically, their classification into anger, grief, fear, pleasure, surprise, disgust is preserved all over the world. Physiological expressions of emotions are accompanied by changes of the skin temperature, galvanic skin reflex, arterial pressure and pulse rate. The pulse rate increases at fear, though the skin temperature decreases. At pleasure both the pulse rate and the skin temperature increase moderately, the more expressed elevation is noticeable at anger, and decrease of these parameters is typical of disgust. Thus the type of the answer entirely depends on antagonistic functions of the sympathetic and parasympathetic nervous system.

The expressive movements are indicators of the emotional condition. Since the time of Ch. Darwin a certain number of such conditions is distinguished. S. S. Tomkins, R. McCarter distinguished 7 basic emotional categories to which they referred pleasure, fear, fury, surprise, pain, interest and shame. Other researchers supplement these categories with disgust and contempt. However, syste-matization of emotions was unconvincing until the neuropsychological basis of these phenomena was understood. Promising steps in this direction were made by J. Panksepp. He tried to systematize emotions, connecting them with large structures of the brain of mammals, managing concrete behaviour. He distinguished the emotions of: 1) interest - desire (expectation), 2) irritability - anger (fury),

3) trembling - anxiety (fear), 4) loneliness - grief (distress of separation, panic), 5) pleasure — passion. Ch. Darwin, comparing the external expressions of emotions in man and animals, found out their similarity. This research became one of the facts of his evolutionär}' theory of the origin of the man. One of the fundamental emotions is fear; for example, all primates, including a man, are afraid of snakes, reptiles and insects. Fears of the man can be arranged in the following sequence: the fear of strangers which for the first time occurs in a child at the age of about a year and a half, fear to fall ill with an incurable disease, fear of not predicted situations, death, fear of loss of the social image, child and love, habitual stereotypes and, at last, fear of loss of life sense which in hierarchy takes the highest place.

Emotions develop into feelings. In the system of feelings an important place is occupied by love. However, this feeling consists of a great number of emotions and has its typology. So, romantic love, love — hatred, sublimated love, maternal love and love of the child to his mother are distinguished. According to Masters-Johnson in the structure of romantic love the following sequences are distinguished: from readiness to love — to being in love — to the love union, which further includes the dynamics of love with experiences of return of reality, boredom, irritability, disappointment and offence, accompanied by the analysis resulting in conflict or armistice and probable coolness, breaking off and search of a new object of love. But the dynamics of feeling is quite different if the love union arises not stage by stage, but from being in love immediately real love occurs. The escalation of hatred also contains some stages: from dehumanization of the opponent up to collision and armistice.

The sum of emotions for a time interval is referred to as mood. And bright expressions of emotions with a distinct nonverbal component are called affect. The emotional expressions and feelings

at various national groups are expressed differently, though fundamental emotions in all are identical. So, a smile of the Japanese may be not connected with pleasure, but is a display of politeness and respect.

Symptoms and Syndromes

The pathology of emotions is expressed by the decrease of mood — depression, which is composed of the decreased mood (spirit), the decrease of motor activity, delay of speech. Subjectively own inconsistency is expressed in the feeling of «mournful loss of con-sciousness» (anaestesia psychica dolorosa). At depressions the representation about oneself (depressive depersonalization) with prevalence of sensations of uselessness and forlornness in the world which seems sad, grey and uninteresting (depressive derealization) varies. There may be suicide ideas and ideas of self-accusation. To somatic symptoms tachycardia, early involution, constipations, decrease of weight and appetite, decrease of libido, the increased fragility of nails and loss of hair refer. Depression is supported by the following cognitive circle: I cannot do anything — my energy continues to decrease — I am useless — I am guilty towards my relatives because I do not help them; and as a result — exacerbation of depression.

This condition begins in the morning. I usually wake up earlier, somewhere at five o'clock, and lie with open eyes. I am terribly bored, and a weight sits heavy on my heart. It is necessary to get up, but I don't want, it seems awful that a long day is in store for me. At work there is nothing good either, I would like to hide in the corner. Melancholy just paralyzes, and the whole world seems grey and gloomy as if seen through dirty glass. The sense is lost, and there is nothing good in future.

The elevation of mood — mania — is characterized alongside with changes of mood by the increase of motor activity, increase of thinking rate with gallop of ideas (fuga idearum), increase of work capacity and sexual activity, reduced need of sleep and increase of appetite. Depressions and manias are typical of affective disturbances.

There is nothing better than this period of autumn, it usually be-gins in September. 1 work much but do not get tired. Ideas are implemented as soon as they occur. Everywhere I am in time and always equal to the occasion. I notice that I can drink more and not get drunk, I eat not noticing what, but always with appetite. A lot of friends and girl friends appear, money is spent sometimes during a day. One drawback is the increase of debts.

Dysphoria is the condition of unmotivated malice and irritability, sometimes aggression directed at all associates without exception. It is typical of organic disturbances and epilepsy.

Usually some time after the attacks there are days when you are just angry with everybody. Whatever somebody says, you want to object, to protest. You just want to rush at the person who objects you or looks at you in a different way. Sometimes you specially provoke somebody, but it does not bring relief Sounds and bright light, clothes and transport irritate me. On tliese «black» days I constantly get into trouble.

Euphoria is a condition of serenity with aspiration to contemplation, but frequently with active actions, which are characterized by relief. It is characteristic of the use of psychoactive drugs. If at euphoria there is no purposeful activity, it refers to moria; it is characteristic of dysfunctions of the frontal lobes of the brain.

Ecstasy is high spirits with representation about going outside the own body and merging with the environment, for example, with nature. It is an equivalent of the orgasm. It may be observed as a special type of epileptic paroxysm.

Alarm is a condition of confusion with the increase of motor activity, sometimes tremor, palpitation, trembling (frequently in the periumbilical area), tachycardia, increase of arterial pressure. It frequently accompanies depression, but is found within the framework of separate anxious disturbances, which turn into panic. Alarm is supported by the following cognitive links: heart may stop, it beats too fast — I may have an attack anywhere — as a result of the attack I shall die — amplification of alarm and recurrence of a stereotyped circle.

> *After the examination the mark was announced not at once, but they said to come only in the morning. I did not sleep the whole night, worried - what if it would be a bad mark? I was wandering around the room, looked into the zoindow, drank a soporific, but it did not have any effect. My hands were trembling, there zoas palpi-tation, and temples zvere pressed.*

Instability of affect — inability to control behaviour which accompanies emotions; it is frequently expressed in aggression in relation to a weak stimulus of insult. It is typical of organic disturbances and some anomalies of personality.

Emotional lability is a fast change of mood, quickly appearing tears of deep emotion, irritability. It is typical of vascular disturbances. It also testifies to the emotional coldness — indifference, inability to feel empathy, detachment, formal reaction to emotions of other people and even members of the family. Not all are capable to narrate about the feelings and mood, the majority of patients use poor and colourless expressions for their description, this phenomenon is called alexitimia.

Pathology of Intelligence

Definitions

Intelligence is an integrative mental function including the ability to cognition, the level of knowledge and ability to use it. Among the disturbances of intelligence the intellectual retardation and dementia are distinguished, which are divided into diffusive and lacunar, and also developmental delay and defects.

History of the Question, Norm and Evolution

Intelligence is thinking in operation. It reflects the integral ability to adaptation of mentality and is the instrument of the individual survival. At animals the I. Q. may be determined by the ability to decide the problems, for example by the speed of passing a labyrinth. For the development of intelligence a combination of genetic, including constitutional, factors and influence of environment, including education and training, is important. F. Halton established that intelligence is inherited. Probably, some forms of intellectual insufficiency, as well as abilities are inherited according to a dominant type, for example musical abilities, others — according to a recessive and polygenic type, though there are also the forms reminding of mutations, that is, single cases in families. F. Halton related to the family of Ch. Darwin to which also Erasmus Darwin related and a great number of other English scientists, political leaders and writers, whose genetic line is traced up to now. There are detailed descriptions of ability genetics in J. S. Bach's family, genealogy of Russian writers connected with A. Pushkin, emperor Gabsburg's family, etc. Mental abilities and reactions to environment are marked by some constitutional features and dysplasias, for example, morphological features are

known at chromosomal anomalies. The operative opportunities of intelligence may be connected with the age of mother and father to the moment of conception. I. Q. is sometimes connected to the age of mother to the moment of labor, as after 35 the probability of mutagenesis of ovule increases, therefore the Down's syndrome, in particular, is more often found. A great significance has consanguinity of mother and father, which increases the risk of anomalies of intelligence, and also the distance between the places of origin of mother and father, as at insignificant distance the probability of consanguinity rises. In other words, heterosis as the phenomenon of advantage of heterozygotes over homozygotes promotes big advantages, including those according to the level of I. Q.

The environmental factors also influence intelligence. In the embryonic period the brain may be damaged by teratogenic factors, such as intoxications and infections, viruses or alcohol. The probability of damage of the brain is high at hypoxia as a result of detachment of placenta, prematurity, damages of the brain at the moment of labor. The early abnormal interactions of mother and child, especially separation and deprivation, result in delay of development, which may be fixed. The structure and systems of training may suppress or stimulate the latent mental abilities. Some people have exclusive mental abilities, which are appreciable from the earliest age. Ch. Lombroso considered that the majority of geniuses are degenerates and mental patients, however, almost in 150 years V. P. Efroimson showed that genetics of intelligence is only relatively connected with a productive psychopathology. He distinguished families and remarkable persons whose high intellectual level was associated with gout, that is, with the level of uric acid, level of endogenous caffeine and level of hormones.

However, «good» genetics and «good» environment not always lead to a satisfactory result, as for realization of intellectual ability the realization of potentialities, i. *e.* the need to achieve the purpose, is also important. This function may be not connected to intelligence, but it determines the level of domination and self-estimation. The universal model of intelligence includes an operational level, efficiency and contents. The operational level consists of memory, thinking, abilities to convergence and divergence of ideas, to realization of abstraction. Efficiency of intelligence consists in abilities to associate the ideas in groups, classes, systems, and relations. The contents of intelligence may be verbal (a vocabulary and operating it), nonverbal (strategies of behaviour and their use), symbolical and semantic. Many researchers consider that an important component of intelligence is the sense of humor and ability to be ironic towards oneself. The level of achievement of the maximal intellectual level averages 40-50 years if this is not interfered with the features of personality, influences of environment or somatic disturbances. However, the degree of gradualness of acquiring and losing intelligence depends on genetic mental faculties. Thus, silly people grow wiser slowly and become sillier faster, and clever people grow wiser quickly, and grow stupid after 60 years more slowly. To a considerable extent I. Q. is supported by continuous training, somatic health, and refusal of harmful habits. Though it is not always proved by practice: thus, preserving high intelligence, W. Churchill till the elderly age continued to smoke cigars and did not refuse cognac. According to the book of records of Guinness, the maximal level of IQ is displayed not by men but by women.

Symptoms and Syndromes

In pathology of intelligence the intellectual retardation and dementia are distinguished, which are divided into diffuse and lacunar ones, as well as delays of development and defects. Difference of intellectual retardation from dementia consists in the fact that the former represents the initial insufficiency, while dementia — the acquired condition. The critical point is considered

the age of about 3 years. If the child loses his abilities up to this age, he is considered mentally retarded, if after it — suffering from dementia. The reasons of intellectual retardation may be genetic and acquired. Among the genetic reasons the genetic and chromosomal anomalies, mutations which lead to metabolic disorders are possible. Among the environmental reasons the influence of teratogenic, including genetic factors, damages at labor and the diseases acquired during the first three years of life are distinguished. The differentiation of intellectual retardation and its symptomatology are described in the appropriate sections. For intellectual retardation, except for some metabolic processes, the increase of semiology is not typical, but even some progress is peculiar as a result of special training.

Dementia is expressed by acquired cognitive deficiency in the sphere of memory, thinking, learning, will activity. If the change of intelligence concerns only one function, for example memory, we speak about lacunar, i. *e.* focus dementia, dementia which is typical of atrophic dementias, for example Alzheimer's disease. If it concerns gradual decrease or loss of several functions, we speak about diffuse dementia. However, frequently these two types of dementia penetrate each other, therefore it is possible to say that the majority of dementias develop in dynamics — from a focus to diffuse one. Dementias more often have a continuous character, and they are irreversible.

Developmental delay is usually caused by specific conditions of environment, for example: education of the child by mentally ill parents, isolation, deprivation of normal training (as a result of economic difficulties). However, as against mental deficiency and dementia at developmental delay the fast gain of the level of intelligence is possible as a result of correct training; quite good abilities to adaptation in real life are also marked.

At schizophrenia functional dementia (defect) is marked, it is expressed by the fact that, despite inactivity and avoidance of new knowledge, coldness and detachment, patients produce imaginations and productive experiences. Besides, they may completely leave the condition of defect, including before death. An example of such is the recovery of Don Kikhot described by Servantes, in particular.

Case History and Diagnostic Sequence

General

Surna
me
First
name
Patron
ymic
Date of birth and birthplace
Sex
Place of employment or physical disability Heredity
The anamnesis from words of the patient
The objective anamnesis (the anamnesis from words of close relatives)

Mental condition

Complaints
Behaviour (facial expression, posture, gesture, dress and grooming)
Speech
Attention
Orientation in place, time and own personality Perception

Memory and
intelligence
Thinking
Motor and will disturbances (instinctive disturbances)
Emotions

Characteristics of personality

Criticism and attitude to own experiences

Somatic condition

The morphological constitution

Dysplasias

The somatic status

Neurological condition

Results of psychological examination

Laboratory researches, including data of CT, echoscopy, EEG, REG **Substantiation of the diagnosis**

Diagnosis by ICD 10

Plan of treatment and rehabilitation

Diaries of changes of condition and plans of therapy

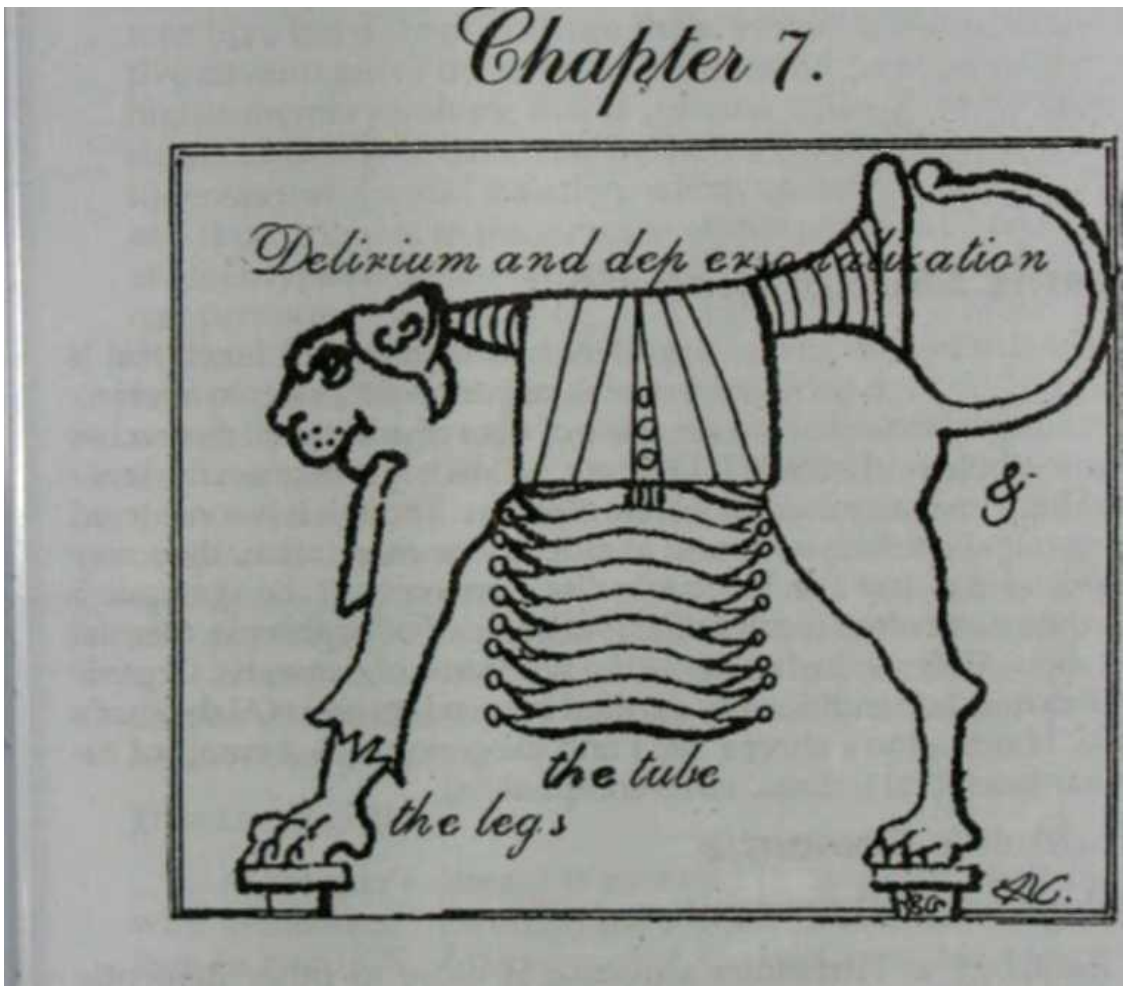
Diagnostic Sequence in Psychiatric Clinic

A doctor assigns the consecutive tasks to himself at conversation and inspection of a patient. These tasks correspond to the sequence of rubrics of ICD.

If the below listed signs of the table are available, they should be specified, if they are absent — pass to the following question (rubric).

	Diagnostic questions	Code	Rubric
1	2	3	4
1	Are the signs of the organic affection of the brain determined clinically, neuropsychologically and with the help of special objective methods (CT, MRÏ, EEG, echoscopy, REG)?	FO	Oreanic, including symptomatic mental disorders
2	Are there any symptoms of abuse and influence of psychoactive substances on behavior?	Fl	Drug abuse
3	Is it possible to reveal the pathology of thinking (perception) in combination w i t h expansive/depressive affect and emotional-volitional decrease (incongruity)?	F2	Schizophrenia, schizotvpical and delirious disorders

1	2	3	4
4	Is it possible to reveal the pathology of emotion and affect?	F3	Affective disorders
5	Is stress being suffered or has it been suffered recently? Are there any neurotic disturbances or signs of somatic conversion as a result of these experiences?	F4	Neuroses and somatoformic disorders
6	Are the syndromes of disorders of ingestion, sleep, sexual function determined?	F5	Behavioral disorders connected with physiological disturbances and physical factors
7	How are the stable specific personality features, sexual orientation, habits, drivings determined?	F6	Personality disorders
00	What is the level of intellect and what are the features of its social realization? If it is disturbed, what is the reason?	F7	Mental retardation. Rubrics of etiological causes of mental retardation
9	Are there any paroxysmal conditions nowadays and were there any before?	G 40-47	Episodic and paroxysmal disorders
10	Can the specific disturbances of speech development, school skills and general disturbances of development bè determined?	F8	Pathology of psychological development
11	Are there any signs of behavioral and emotional disturbances in childhood and adolescence?	F9	Behavioral and emotional disorders usually beginning in childhood and adolescence



CLINICAL FEATURES OF MENTAL DISORDERS

Organic Mental Disorders

The division of mental disorders into organic and functional is conditional, and it is accepted to speak rather about a degree of objectivity of mental disorders on the basis of data of additional researches (neuropsychological tests, CT, EEG, etc.), allowing to connect the brain substratum, toxic agent and concrete disorder. Though it is considered that organic disorders are found at elderly age more often, they may be manifested at any age. If organic disorders occur at the age up to 3 years, they more often result in the syndrome of oligophrenia, (mental retardation), if they arise later — in the syndrome of dementia. Organic disorders may be conditionally divided into endogenous (Alzheimer's disease, Huntington's chorea, etc.) and exogenous (as a result of tumor, craniocerebral trauma, virus encephalitis).

Alzheimer's Dementia

Aetiology and Pathogenesis

Aetiology at Alzheimer's disease is close to other dementia processes. The genetic reason is the defect of various sites of the 21 chromosome, in particular chromosomal strangulation and lower chromosome arm; genes of these sites supervise the growth of local groups of neurons. Probably, the disease is genetically heterogeneous, as recessive and prepotent types of inheritance are observed. The defect results in the formation in the posterior lobes of the dominant hemisphere of accumulations of beta-amyloid (amyloid corpuscles, Glenner's corpuscles), which disturb microcirculation. In pathogenesis the deficiency of acetylcholintranspherase, the dicrease

of synthesis of acetylcholine and slowing down the neuronal conduc tivity, as well as intoxication by aluminium take part. The increase of aluminium in plasma is marked at long reception of aspirin, af ter hemosorption and hemodialysis, and also at residing in ecologi cally unfavorable areas, in particular above the deposits of bauxites It is supposed that in evolution the Alzheimer's disease occurred a: a result of prion damage of the 21 chromosome by the virus of slov\ infection, but did not undergo the selection in connection with selec tive advantages of the affected. To these advantages in particular th< higher memory volume that is peculiar to the given patients at earl) stages of ontogenesis refers. Defective memory at this disease lead! to sensory and social isolation, which causes secondary deprivation and it contributes to the increase of dementia. Similarly deprivatior at other types of dementia develops. Atrophy of the cortex results ir compensatory hydrocephaly and expansion of lateral ventricles o the cerebrum. At increase of the production of liquor, the expressive ness of dementia increases. As amyloid may accumulate around th< vessels, in pathogenesis the vascular factor also takes part. In aetio logy and pathogenesis an autoimmune factor is also of significance.

At one of the variants of the disease amyloid accumulates ii occipital and parietal parts, and also in hypothalamic nuclei (diseasi with Levi's corpuscles). Such cases proceed with paranoid hallucina tory psychoses and epileptic attacks.

In each concrete case of disease it is possible to speak about i degree of contribution of various factors to aetiology and pathoge nesis of the disease.

Disease Incidence

Alzheimer's disease is revealed in more than half the patient with dementias. In women the disease is marked twice more oftei than in men. 5 % of persons over 65 years are subject to the disease however the disease more often begins in patients over 50; juvenil cases at the age of 28 are described. The disease takes the 4-5th plao among the reasons of death in the USA and Europe.

Clinical Features

The disease more often proceeds progressively, though at con gestion of amyloid around the vessels paroxysmal variants are pos sible connected with a combination of atrophy and a vascular patho logy. The duration of the disease is from 2 to 10 years. At dementi with the late onset (after 65) the degree of progression is less than at dementia with the early beginning (up to 65 years). At dementia with the early onset the affection of the parietal, temporal area and hypothalamic nuclei is more often marked, and the genetic predisposition is more distinct. Mixed, atypical variants are connected to combinations of vascular or traumatic and atrophic dementia.

In the initial period the prolonged and yielding to no therapies neurotic conditions, prolonged depressive episodes, chronic paranoid states, in particular with ideas of jealousy and damage, acute and transient psychotic disorders are frequent. Already at this stage signs of atrophy can be noted on computerized tomography (CT). The initial cognitive decrease is also marked subjectively by the patient trying to compensate it.

At early stages it is possible to notice the original change of the facial expression — «Alzheimer's amazement» at which eyes are widely opened, the facial expression is of surprise, blinking is rare. Orientation in an unfamiliar place is worsened. There are difficulties in doing sums, writing. As a whole the impression of reduction of success of social functioning is created.

The main symptom of the first — manifesting — stage is the progressing derangement of memory and reaction of the person to cognitive deficiency in the form of depression, irritability, and im-pulsiveness. In behaviour the regressiveness is marked: untidiness, frequent preparations for journey, stereotypy, rigidity. Further de-rangements of memory cease to be realized. Amnesia spreads to habitual

actions, patients forget to shave, dress, and wash themselves. Nevertheless, the professional memory is deranged last. On EEG it is possible to observe both paroxysmal activity and decrease of voltage above the focus of atrophy. Patients may complain of headaches, dizziness and nausea that is a symptom of hydrocephaly. Progressively for a short period of time the weight is lost at preserved and even increased appetite.

At conversation with the patient the disturbance of attention, unstable fixation of the glance, stereotyped gathering movements are appreciable. Sometimes the disease is manifested acutely as amnestic disorientation. Leaving the house, the patients cannot return home and find it, forget their name and surname, date of birth, cannot predict consequences of their actions. The period of disorientation is replaced by relative safety of memory. Acute manifestation and paroxysmal course testify to the presence of a vascular component.

At the second stage to amnestic disturbances apraxia, acalculia, agraphia, aphasia, alexia join. Patients confuse the right and left side, cannot name parts of the body. Autoagnosia occurs, and they cease to recognize themselves in a mirror. They are looking at themselves with surprise, touching the face. Handwriting and character of the signature vary. Epileptic attacks and short-term episodes of psychoses are possible. Annexation of a somatic pathology, for example pneumonia, may cause delirium. Muscular rigidity, tension increase, Parkinson's displays are possible, *in* speech — perseveration, in bed patients stereotypically cover themselves and head with a blanket or make «rummaging around» movements.

The third stage — marantic — is not specific. The muscular tone is usually increased. Patients die in the state of vegetative coma.

The clinical example of dementia at Alzheimer's disease with the early onset is the following:

> *Patient £., aged 58, worked as an accountant ealier; alongside with tfie current work he prepared large annual reports for firms. He is socially successful. In tlie anamnesis he has no features, does not smoke, uses alcoholic drinks incidentally. For the last several years he marked fatigue, loss of weight. During a year troubles began: he began to do mistakes in reports, as a result he lost great sums of money. He started to make notes, but forgot, where he left them. All these symptoms proceeded on a background of the lozoered spirit and irritability because of his inconsistency. He arrived in another city and left the car in the central square where he had to meet a friend. In some hours after the meeting he forgot, where he had left the car, rushed about in its searches. He addressed the psychiatrist. On inspection he is confused, his eyes are widely and surprisingly opened. He confuses dates, does not remember precisely, hoiv appeared in this city. There is expressed defective memory on the current events and events of the previous week. On CT - signs of atrophy of postfrontal parts of the left Iiemisphere, compensated hydrocephaly.*

Diagnostics

For establishing the diagnosis the following are necessary: signs of dementia, *i. e.* defective memory, other cognitive functions, decrease of control over emotions, impulses, as well as objective confirmation of atrophy on CT, EEG or at neurological research. On CT the expansion of lateral ventricles of cerebrum is marked on the part of atrophy that may result in displacement of median structures of the brain to the side of atrophic centre, thinning of grooves and expansion of subarachnoid spaces. Actually the focus of atrophy is higher on density than the surrounding brain tissue.

The criteria of diagnostics of Alzheimer's disease are: presence of criteria of dementia, gradual onset with slowly coming dementia, absence of the data of clinical or special researches in favour of other systemic or cerebral disease, absence of focal brain semiology at early stages of dementia.

Therapy

In treatment it is necessary to limit the application of tranquilizers and neuroleptics in connection with fast development of the phenomena of intoxication. Usually their application is possible in the periods of acute psychosis and in the minimal doses. The basic attention should be paid to the prevention of secondary deprivation with the help of special instructing relatives. Usually patients with Alzheimer's disease for a long time should take preparations, inhibiting the development of cognitive deficiency, antiparkinsonics and vascular means. Certain place belongs to methods of pressure decrease of spinal liquid, hormonal preparations.

Secondary deprivation is surmounted by the increase of sensory enrichment of the environment, *i e.* relatives should be convinced of the necessity «to teach the patient anew». The persevering repetition and learning of the forgotten should become a rule, constant communication of the patient and being busy planned for the whole day are important. In relatives under the influence of supervision and care for the patient the feeling of guilt, neurotic conditions may develop.

To the means of struggle with cognitive deficiency the therapy by nootropics, inhibitors of cholinesterase (this therapy should be constant and in big doses), megavitamin therapy (megadoses of vitamins B_5, B_{12}, B_2, E) refer. The most time-tested means among inhibitors of cholinesterase are: Tacrine, Donepesil, Rivastigmine, Phisostigmine, Galantamine. Among antiparkinsonic drugs Yumex is the most effective. Periodic therapy by small doses of Angiova-sine and Kavintone (Sermione) influences a vascular component. The most effective treatment for liquor hypertension is shunting (cranioperitoneal, craniofascial, craniolymphatic). The combination of shunting with active training and nootropics enables to considerably inhibit the dementia process.

Vascular Dementia

Aetiology and Pathogenesis

To the main aetiological factors the following refer: arteriosclerosis of the cerebral vessels, hypertonic disease, vasculites, thromboembolisms at endocardites, rheumatism and endoarteritis, diseases of blood. Localization of the initial involvement, especially frequent at a middle age, is caused by congenital arteriovenous malformation. The foci are defined neurologically on EEG, CT and NMR. They occur in the cortex, subcortical structures and the brainstem. Usually the neurological semiology arises simultaneously with the psycho-pathological one, but sometimes psychopathological disturbances at transient (within a day) disorders of the brain blood circulation pass ahead of a neurological picture. The formation of new foci perifo-cally or in the opposite hemisphere is typical. Around each focus the area of disturbances of blood circulation is marked, so that actually the area of the focus appears always to be wider than the locus of involvement. There exits a genetic predisposition to vascular dementia. Hyperlipidemia and diabetes contribute to it. Vascular dementia may accompany cardiocerebral syndromes at hypoxic conditions as a result of, for example, acute cardiac arrest or myocardial infarction.

Disease Incidence

It was earlier supposed that vascular (atherosclerotic) dementia is found more often than atrophic, however nowadays, being verified, they cover up to 15 % of patients with dementia. The ratio of men and women is approximately equal, but under 65 years vascular dementia is found more often in men. At a young age the reason of dementia is either thromboembolism or malformation.

Clinical Features

The initial symptoms of vascular dementias are symptoms of somatic diseases, which they have resulted from, for example, hypertonic disease. Neurologists refer these symptoms to dyscirculatory encephalopathy. These are also symptoms of general cerebral disturbances: headaches, nausea, dizziness, faints, emotional lability, fast asthenization and meteotropism.

At vascular dementia with the acute onset after insult (heart attack) of the brain with the neurological semiology dependent on locality of involvement, and a stage of acute disorder of consciousness the amnestic period with emotional lability develops. At the right-hemisphere affection the disturbances of the body scheme are marked; epileptic attacks are characteristic of affection of the left temporal lobe; aphasic disorders are peculiar to affection of postfrontal and anterotemporal parts of the left hemisphere. These disorders after consolidation of consciousness are replaced by increasing disturbances of long-term and short-term memory. The defect of cognitive functions may be partially compensated, however, signs of dementia remain steady for the next three months.

At multiinfarction dementia in aetiology insults or heart attacks consistently develop, however, semiology may look as consecutive dynamic disorder of the brain blood circulation. Thus, only after some of them it is possible to reveal a distinct neurological semiology — each subsequent heart attack results in cognitive scar and increasing defect. The degree of deficiency and semiology' depend on localization of new foci. The reason is more often atherosclerosis of the vessels of the brain. Memory changes according to the Ribout's law: from amnesia of events of recent time to events of more ancient time. The impression is gradually created that patients are immersed in more and more remote past with regressive habits and stereotypes of behaviour. Faintheartedness or irritability occurs.

Diagnostics

The connection of cognitive deficiency with concrete vascular accident, fluctuations of deficiency in the presence of symptoms of a focal neurological pathology allow to establish the diagnosis of vascular dementia. The diagnostic criteria of vascular dementia include general signs of dementia, unstable cognitive disturbances, acute onset, and/or stepped progressing. The presence of neurological signs and symptoms indicating the focus, as well as accompanying symptoms in the form of hypertension, carotid noise, emotional lability, transient episodes of dullness of consciousness are important. Variants of vascular dementia are dementia with acute onset, multiinfarction dementia and subcortical dementia.

Patient (60 years old) since age of 40 fiad been suffering from hypertonic disease for 10 years, for a long time she took beta-US

blockers (Propranolol). At the arterial pressure up to 200 and 120 mm Hg dizziness, faint, headache, vomiting appeared, numbness in the left hand and leg occurred; after application of hypotensive medicines the condition became normal, but she began to complain of stupidity and unmotivated lowering of spirits, tearfulness. In a year the given condition recurred. After that it became difficult to concentrate, she forgot to close the door, noticed that she could hardly recall the previous favourite series of television serials, she got quickly tired, was tearful, sometimes suddenly explosive. On neurological examination during two months there was the increase of tendon reflexes on the right. After the third collapse she could not speak for some days, hardly choosing words. In the evening she assured that her died husband came to her. On EEC there were diffusive changes, on CT - the foci of postinfarction changes in the right and left cortical postfrontal zones. On neurological examination smoothness of nasolabial fold on the right and a slight deviation of the tongue to the left were observed.

Therapy

The therapy includes: treatment of the basic vascular disorder usually with application of anticoagulants, vasodilating medicines, angioprotectors; treatment of other somatic diseases which have resulted in a vascular pathology, and also the struggle with cognitive deficiency with the help of intensive training, application of vitamins and nootropics. The danger of application of some protectors is in the fact that they cause a steal syndrome at which cognitive deficiency decreases but at the cost of occurrence of new psychopathological disorders (epileptic attacks, delirium). These phenomena are connected to the fact that vascular problems of the focus are solved at the cost of occurrence of new dynamic disorders as a result of excessive expansion of vessels in the earlier compensated areas. At high convulsive readiness the therapy by nootropics should be only by average doses, basically by Pikamilon and Pantogam, though even in the acute period of insult the neurologists recommend very high doses of nootropics, for example, up to 10.0 ml Cerebrolysin intravenously. Sensitivity to neuroleptics and tranquilizers at vascular dementia is increased; therefore their doses in case of development of psychosis should be minimal. At vascular delirium tranquilizers, Oxybutyrate lithium are recommended.

Pick's Dementia

Aetiology and Pathogenesis

The disease is connected with atrophic processes in the frontal parts of more often dominant hemisphere, though a pair frontal atrophy is also possible. The disease is transferred more often upon the dominant type, though the recessive forms of transfer are also described. Atrophy is caused by gliosis (argyrophilic spheres), though sediments of amyloid, reminding of Glenner corpuscles, are also probable, it results in increase of the frontal horns of ventricle of the brain, compensatory hydrocephaly. Atrophy is caused genetically and transferred by a recessive type. Theories of the development of Pick's disease are similar to those of Alzheimer's disease, though they are less developed. There are data that in the area of atrophy the surplus of zinc is marked.

Disease Incidence

Patients are affected at the age over 60, though under the influence of external insalubrities, for example alcohol, at an earlier age it is possible to explain some inadequate acts by provoking presymp-toms of the disease. The disease is marked tens times less often than Alzheimer's disease, the ratio of men and women is 1:2.

Clinical Features

The disease proceeds in three stages, the initial symptoms are not investigated. The duration of the disease is up to 10 years.

At the first stage the symptoms of disturbance of social functioning and symptoms of unmotivated acts are marked. In the process of their increase the obvious frontal syndrome is noticeable. To the symptoms the egoistic orientation of personality with disinhibition of instincts that are not supervised refers. Striving for the immediate realization of instinct results in the fact that separate acts seem facilitated, they are not motivated by the former orientation of personality and do not correspond to the social environment. Patients may become sexually disinhibited, satisfy physiological needs without taking into account place and time. The importance of rigid stereotypes of behaviour and original conservatism increases. In speech there is a symptom of gramophone record at which patients tell one and the same secrets, jokes, and stories stereotypically.

The emotional life is characterized by unproductive euphoria, moria or apathy. At increase of frontal semiology apathy or moria is already accompanied not only by periods, but constant instinctive disinhibition, the so-called spontaneous «field» behaviour. Amnestic disorders are not present; patients explain their wrong behaviour easily and motivate it by intemperance or impatience. In some cases the disorders at Pick's dementia at the first stage remind of hebephrenic ones. At frontal basal atrophy emotional-personal disturbances prevail; disinhibition and rigidity replace each other. At the right-hemisphere localization anosognosia of the wrong behaviour is combined with euphoria and placidity, at the left-hemisphere localization — with depression. At convexital frontal atrophy the wrong behaviour is combined with apathy and abulia.

At the second stage the focal symptoms in the form of amnesia, aphasia, apraxia, agnosia, acalculia are marked, and at this stage dementia is difficult to distinguish from Alzheimer's disease, though epileptic attacks are not found, echopraxia and echolalia are characteristic. A peculiar symptom is hyperalgesia of integuments.

At the third stage marasmus with transition to vegetative coma with the reduced muscular tone is marked.

Patient M., aged 63, being retired, continued to work as a member of the political council of the party. He got ready with reports and made them, lived with the wife separately from children. The anamnesis is without features. In the past he was an engineer. The disease begins with strangeness of behaviour. At making one of his reports he began voiding on the tribune. To the question, «What for is he doing it?» he gave the answer with a smile, «Why to interrupt the report? At home he began to spend money secretly on sweets, cakes, concealing them from the wife. He began to demand the observance of the strict order. He addressed sexual pathologist with the demand «to clear up the situation with the wife* as, in his opinion, his sexuality became impetuous, and she does not pay any attention to him. Strange acts with inadequate explanations of motives proceeded for the whole year; he was detained by militia for pinching women in a trolley bus; ^wanted to get acquainted closer». At examination on EEG the decrease of voltage in frontal leads, and on CT - signs of atrophy of frontal parts of the left hemisphere are marked.*

Diagnostics

Features of diagnostics consist in the following: before the stages of cognitive deficiency, first of all in the sphere of memory, it is necessary to reveal the defect of social functioning and syndrome of inadequate acts.

On EEG it is possible to notice the decrease of voltage in frontal leads, on CT — signs of frontal atrophy: the expansion of frontal horns of lateral ventricles of the cerebrum, attenuation of sulci and expansion of subarachnoid spaces, the density of the brain substance in the areas of atrophy is more often reduced.

Therapy

The therapy is similar to that of Alzheimer's disease. The syndrome of unmotivated acts deserves special attention of judicial psychiatrists in connection with possible asocial and independent behaviour in advanced age, in particular at making contracts of purchase and sale, appointing guardianship.

Creutzfeldt-Jakob Dementia

Aetiology and Pathogenesis

The disease is caused by the virus of a slow infection similar to the hen viruses, and also a virus of spongiform encephalopathy of cows. As a result of affection, after a long incubatory period (up to 20 years), encephalopathy with proliferation of astrocytes develops. The participation of autoimmune processes at one of the stages of the disease is probable. The affection of grey and white substance occurs on their border at various sites of the brain.

Disease Incidence

Incidence of the disease makes up about one case per 1 million people a year, but it considerably increases at occurrence of natural foci of viruses of a slow infection. In particular, as a result of epidemic of spongiform encephalopathy at the end of the XX century in Great Britain it was registered 11 cases of the disease per year.

Clinical Features

Patients at the age of 30 till 50 are subject to the disease, but it is possible that children's dementia (of Kramer-Polnov and Geller) refers to the same circle. The duration of the disease is from 2 months till 2 years. The mortality exceeds 80 %. We describe cases of recovery at given disease resulting in organic asthenia.

At the first stage (within several hours) undeveloped delusion ideas or delusion-like fantasies, paranoid hallucinatory inclusions, twilight states of consciousness and epileptic attacks occur. Patients are perplexed, with «the floating attention», periodically answer questions not to the point, look around. There are episodes of violent laughter and crying. The temperature is subfebrile.

At the second stage the following are marked: pyramidal and extrapyramidal disorder with choreoathetoid movements, catatonic episodes, amentia, cerebellar ataxia. There is a naso-oral reflex. In the face-down position there are creeping movements. The convincing changes of liquor are absent.

At the third stage a spontaneous recovery with asthenia outcome is probable, but more often lethal outcome is observed.

> *Patient T., aged 48, lives alone. She is periodically visited by her son - a cadet of the military school. T. manages a warehouse of the firm, does a lot of managerial work. Once her son opened the door with his key and found Iter lying on the floor, her tongue bitten, and there were signs of involuntary urination. He hospitalized her to the neurological department which she left in the evening oftiie same day. She could not find the way home, and was discovered only in a day, walking in the fields in the*

direction opposite to the city. She answered questions tersely, recognized the son, but spoke to him with simple phrases. At the conversation she looked round, protruded her lips, smiled inadequately, the atlietoid movements in the upper extremities and expressed prehensile movements were marked. Generalized epilepsy recurred at the department, after which cerebellar ataxia was expressed. There was absent-minded neurological semiology. On CTa blurring border between the grey and white substance mainly in the parietal and occipital parts are observed.

Diagnostics

The diagnosis is based on revealing a short interval of polymorphic psychopathological semiology with violent movements, with addition of pyramidal and extrapyramidal disorders. On EEG plural peaks in all leads, on CT — diffusive blurring of the borders of grey and white substance are revealed.

Therapy

The specific treatment is absent. The immediate reanimation actions and symptomatic therapy are necessary. Therapy by antibiotics is ineffective, but treatment by big doses of nootropics in combination with parenteral nutrition and hormones are encouraging.

Dementia at AIDS

Aetiology and Pathogenesis

The virus of AIDS itself may cause encephalitis and subsequent dementia, but to the given group the processes also refer which are caused by the decrease of activity of immune system, for example, as a result of secondary sepsis or lymphoma. The affection of the brain has a diffusive character, and the probable focal semiology testifies most likely to complications and added pathologies.

Disease Incidence

Spread of the disease is caused by ex-potential epidemic process, characteristic of HIV infection.

Clinical Features

The development of dementia is possible at any age. The duration of the disease is from several months till 2 years. Clinical features of dementia may remind of Alzheimer's and Pick's disease, but a specific feature is the increasing asthenia and apathy, which are subjectively severely suffered by patients.

Diagnostics

The diagnosis is based on revealing cognitive deficiency and serologic data. Research on AIDS of all cases of dementia of other origin is recommended in connection with a high risk of similarity of AIDS-dementia to other dementias.

Organic Amnestic Syndrome

Aetiology and Pathogenesis

The syndrome is caused by an organic process, in particular: a craniocerebral trauma, tumor, infection, hematoma, hypoxia, for example as a result of cardiac arrest, degenerative processes, epilepsy, after sessions of ECT and insulinocomatose therapy, poisonings by carbon oxide. Short-term amnestic episodes may be both at faints and after insults and transient disorders of the brain blood circulation. The development of the syndrome is connected to the Papez's circle, which includes the cortex, hypothalamus, hippocampus and thalamus, as well as reticular formation, amygdalae and septum.

Disease Incidence

Among the patients of neurosurgical departments the amnestic syndromes are marked in 15 %. As amnesia is a criterion of severity of craniocerebral traumas, in all cases of such traumas, and they make up 25-30 %, in all specified patients amnesia is fixed. In neurovascular departments short-term episodes of amnesia are also marked in 30 % of patients.

Clinical Features

At the amnestic syndrome as a result of the craniocerebral trauma the fixation amnesia is usually not present, but there are derangements of memory for the events, previous to trauma (retrograde amnesia) or following it (anterograde amnesia). Sites of loss of memory may be filled

by false memories (confabulations) or memories of other periods of life (pseudoreminiscences). In cases when the fixation amnesia is still present, the syndrome begins to remind of Korsakoff's one. The retrospective estimation of the syndrome always differs from the actual one. Thus, in the acute period of the craniocerebral trauma or insult it is also possible to observe simultaneously the derangement of consciousness as torpor and the amnestic syndrome, and on the outcome of this condition — only amnestic syndrome.

At amnestic disorder after sessions of ECT the syndrome of regress of time is marked, at which recent events of the past, including psychotic, are hardly recalled, and the patient begins to behave and refer to events in the same way as several years ago. At short-term hypoxia, as a result of ventricle extrasystoles, amnesia of very short time intervals or sensation that events occurred as if in a dream is possible.

At chronic course the borders of amnesia may be narrowed and extended according to Ribout's law, i. e. from the present events to the past, thus hypermnesia of the past events is possible at which the events which were not recalled earlier become actual, and even determine the behaviour of the patient. Usually the function of memory does not happen to be intact to other mental functions. To amnestic disorder the emotional, behavioural, cognitive disturbances are
added.

Diagnostics

The diagnosis of the amnestic syndrome is based actually on revealing amnesia and organic background, which might cause it

However, such diagnosis itself is possible only as additional and qualifying or in cases when the organic basis is present but not yet concretized. That is, the diagnosis can be considered at chronic course (more than 3 months) as intermediate or as retrospective. For example, at hypoxia as a result of the uncompleted suicide or heart failure, after the first craniocerebral traumas the primary diagnosis of organic amnestic syndrome is usually justified, but at its chronic course by type of hypoxic encephalopathy or traumatic disease of the brain it is usually necessary to think of increase of dementia process. The suffered before traumas with retroanterograde amnesia may not have any effect on actual mental condition, but the suffered amnesia influences the behaviour and motivation according to a track reaction principle. The reaction of the person to amnesia is more often active; it may be accompanied by anxiety, alarm or confusion.

Patient, aged 35, is an assistant professor of the university. In the anamnesis tfiere are no peculiarities. As a result of ciliary arrhythmia there was a heart failure, the clinical death was fixed; restoration of the cardiac rhythm was carried out with the help of defibrillation. For the following three months after staying in reanimation asthenia is marked, he prefers loneliness. He does not remember, what subject he taught, though formal knowledge is kept; he does not remember the tJieme of the thesis he defended, and acquaintances of his acquired for the last 2 years. With surprise he looks at the abstract of his dissertation. He does not remember the events of his monthly staying in reanimation. He takes care of himself, tries to read and restore memory, however, as a result of fixation amnesia he has difficulties in memorizing.

Therapy

The therapy of amnestic syndrome depends on the basic disease. Persistent retraining and saturation of the environment with symbols of the situation, which should be recalled, are always necessary. The reaction of the person to amnesia is controlled by anxiolytics and small doses of

tricyclic antidepressants. For stimulation of processes of memory nootropics and large doses of vitamins are applied.

Delirium

Aetiology and Pathogenesis

The reasons of delirium are vascular disturbances, for example at hypertonic disease, overdosage of preparations, in particular hormones, which in average doses do not have a psychoactive action. To the reasons the following also refer: infections (encephalites, meningites, sepsis, pneumonias), intoxications (destruction of tumor, burns), tumors of the brain, sensory deprivation as a result of limitation of visual and audial information, sleeplessness, long mental strain, chronic pain, hyperthermia in children, overcooling. The cerebral reason of delirium is hyperstimulation of evolutionary ancient structures of the midbrain and brainstem; this particularly explains the fact that the syndrome more often occurs in the phases of transition from sleep to wakefulness, and is characterized by frightening character of visual hallucinations, fear. Frequently delirium occurs at combination of several factors, for example, at somatic pathology on a background of atherosclerosis of brain vessels. Actually acute infectious psychosis and acute psychoorganic syndrome are included in the given group.

Disease Incidence

Children are mostly subject to delirium, in whom hyperthermia, traumatic shock and burns easily stimulate given disorder, as well as old people, in whom any somatic pathology may cause delirium.

Clinical Features

More often delirium occurs in the evening or early in the morning. Hallucinating is quite often felt as continuation of nightmares.

The onset is acute; however, the syndrome is preceded with alarm, panic, hyperacusia and vegetative disturbances (hyperhid-rosis, tachycardia, nausea, tremor), sometimes temperature increases. The patient may be fussy or strives to remain in bed. The condition within a day flickers; the duration of intermittent episodes is about **6** months. In a classical symptomatology of delirium there is disorientation in place and time with preserved orientation in own personality. Dates are usually named from the recent past, and on outcome from delirium — from the nearest future. There is unstable and easily switched attention. There is an increased suggestibility which is tested on the basis of the fact that the patient is capable of speaking over the switched-off phone, to read the text on a clean sheet, and to tie up an invisible thread. There is a disturbance of the rhythm «sleep — wakefulness». Visual hallucinations which may be stimulated by pressing on the eyeballs are of a frightening, more often zooptical character. Hallucinating is preceded by illusions and pareidolia illusions, as well as visualized imagination. The behaviour is determined by the contents of hallucinatory images (search, attack, flight and protection, professional actions). The glance is confused, fixed unstably. There is emotional inadequacy and instability. The somatic disturbances accompanying delirium include hyperthermia, nausea, vomiting, tachycardia, hyperhid-rosis, hyperemia or pallor of dermal integuments, disturbances of heart rhythm.

The feature of delirium at symptomatic and infectious diseases is the presence of the initial period for 2-3 days as headaches, irritability, night nightmares, fear, increased speech and motor activity, euphoria, instability of attention, subdepression. Further clouding of consciousness is marked as obnubilation (rausch), which is manifested by the so-called minimal disorders of consciousness: disturbance of comprehension, illegibility of perception. The illegibility of perception in behaviour is manifested by the patient's screwing up his eyes, as if he is peering into the environment, weakening of memorizing and recalling, the

complicated choosing of words, decrease of ability to draw the conclusion. Further the symptomatology of delirium is marked, and on increasing intoxication — amentia, sopor and coma.

> *A girl, aged 12, has fallen ill with infectious mononucleosis. Within 2 days the temperature rises up to 40 degrees. The anxiety is marked within the limits of bed. She is afraid of the carpet on which she sees a dragon who turns into a number of «small dinosaurs«; she considers that the «curtain on the window is alive», she talks to the invisible girl friends, «who have brought her home task», assures that tomorrow she should take an examination. On a background of increasing alarm and fear she makes stereotyped movements by fingers as if setting straight a blanket, her eyes are wide-open and looking with surprise, a vegetative reaction is expressed. The maximum of emotional experience is marked in the evening and at night. Site notices that the room Iws become large but the ceiling is lowering down; bright light disturbs her.*

Diagnostics

The main diagnostic criteria of delirium are: change of orientation in place and time at preserving orientation in the own personality; perceptual disorders (illusions, pareidolias, hallucinations, more often visual); psychomotor disorders connected with the disturbance of orientation and perception, disorders of the rhythm «sleep — wakefulness»; emotional disorders in the form of fear and anxiety, euphoria.

Therapy

The therapy depends on aetiology (distancing from the source of stress, the vascular or metabolism reasons). In elderly patients the treatment with benzodiazepines is avoided as they cause exacerbation of disorders of consciousness, therefore Bushpar is applied. In middle-aged patients the application of benzodiazepine in average doses (Seduxen, Sibason, Relanium) is necessary. Psychomotor excitation is controlled by Haloperidol in doses of 10-20 mg or Car-bamazepine in doses up to 400 mg. The symptoms of alarm are controlled by beta-blockers (Ethenolol, Inderal, Anaprilin).

Organic Disorders of Personality

Aetiology

The reason is epilepsy, severe and repeated craniocerebral traumas, encephalitis, children's cerebral paralyses, to which somatic disorders are added.

Disease Incidence

It is considered that the organic disorders of personality develop in 5-10 % of patients with epilepsy having the duration of the disease more than 10 years. A reverse correlation is likely to exist between a degree of exacerbation of disorders and frequency of attacks.

Clinical Features

For six and more months the characteristic changes are marked which are expressed as a whole in either sharpening of premorbid features of the personality, or in occurrence of torpidity, viscosity, bradiphrenia (glishroidia). In the emotional background there is either non-productive euphoria (moria), or dysphoria. There is frequently the emotional lability or apathy in the late stages. The threshold of affect is low, and an insignificant stimulus may cause flash of aggression. Upon the whole the control over the impulses and stimuli is lost. The prognosis of own behaviour in relation to associates is absent; suspiciousness,

paranoia are characteristic. Utterances are stereotyped, trivial and monotonous jokes are characteristic. Though in the first stages the derangement of memory is not characteristic, it may progress, and in this case it is necessary to speak about dementia.

> *Patient K., 36 years old, suffers from paraplegic form ofdiildren's cerebral paralysis. Nevertheless, site finished a secondary school and college. Slie worked at home. Her diameter began to diange six years ago with tlie occurrence of rare epileptic absences. She began to notice that her parents treated her badly, did not like lier enough, left the best food for tliemselves. Sometimes slie remained aggressive for the whole day and was groundlessly angry with everybody. This condition was also clmnged into indifference for several days; slie stopped taking care of Ijerself and senselessly looked into space In other time she demanded to keep cleanness in lier room and forced tlie mother to tidy it up several times a day. She gave up her work, did not read at all and amused herself by ringing lier acquaintances on tfie phone making angry jokes on them in a changed voice, spreading ridiculous hearings.*

Diagnostics

The diagnostics is based on revealing the basic disease and typical emotional, cognitive and characteristic changes. In addition to the anamnestic data or other evidences of the disease, signs of damage or dysfunction of the brain, a correct diagnosis demands the presence of two or more features:

- a considerable decrease of the ability to cope with purposeful activity;
- emotional lability (from euphoria to dysphoria), sometimes apathy;
- expressing the demands and drives occurs without taking into account consequences or social conditionalities (an antisocial orientation);
- suspiciousness or paranoid ideas (usually of abstract contents);
- change of rate of speech production, viscosity and hyper-graphia;
- change of sexual behaviour.

Differential Diagnostics

These should be differentiated from dementia, at which personal disturbances are combined more often with derangement of memory; the exception is made by dementia at Pick's disease. Most precisely the organic disorders of personality are differentiated from dementias on the basis of neuropsychological research, neurological data, CT and EEC

Therapy

The treatment is based on application of nootropics (Nootropil, Phenibut, Glutamine acid, Encephabol, Aminalon) in combination with preparations promoting the control over impulses: Carbamazepine, lithium (lithium carbonate, Contemnol, Lithinol), p-blockers, neuroleptics in small doses.

Drug Abuse

The given group includes disorders, the severity of which varies from uncomplicated intoxication to the expressed psychotic disorders and dementia, but for all that, all of them may be explained by the use of one or several psychoactive substances. The concrete used substance frequently determines the whole clinical picture, for example, the picture of intoxication, psychosis, though dementias as a result of use of various substances may be similar. The disorders are distinguished owing to the use of: alcohol, opioids, cannabioids, sedatives and soporific substances, cocaine, other stimulants, including caffeine, hallucinogens, tobacco,

volatile solvents, drugs of combined usage and other psychoactive substances (the latter means the chaotic use of drugs).

To define the character of applied psychoactive substance is possible on the basis of the words of the patient, laboratory analyses, the objective data of clinical research, presence of drugs in the patient, information of the third side. It is desirable to obtain data from several sources. In case of use of more than one type of psychoactive substances, the diagnosis should be established in accordance with the most important or most frequently used substances.

In the pathogenesis of dependence on psychoactive substances a clinical, biochemical and social part exists. A clinical part includes: peculiarity of euphoria which differs at different substances, and thus can explain fixation on concrete substance and preference of the drug; regularity of use; fading of the first effect and change of tolerance; change of forms of consumption (for example, from tablets — to injections); disappearance of protective reactions caused by the change of forms of intoxication, obsessive drives and physical dependence. The biochemical part is determined by the genetic reasons, amount of concrete receptors to which the substance is bound, the level of neurohormones. The social part is connected with a role of family, group, social and economic organization, special environment, for example bohemia.

Acute intoxication is a transient condition arising after reception of psychoactive substance, resulting in disorder of consciousness, cognitive functions, perception, emotions or others psychophysiological functions and reactions.

The diagnosis of intoxication is basic only when intoxication is not accompanied by more stable disorders.

The level and degree of expressiveness of intoxication depends on a dose, accompanying organic disease, social circumstances (for example, the situation during holidays, carnivals), and also on the time passed after the use of substance.

The symptoms of intoxication may depend on the type of substance. Thus, the action of cannabis and hallucinogens is difficult to foresee; the influence of alcohol in small doses is stimulating, in big ones — sedative.

For the definition of presence of complications at acute intoxication it is indicated, whether there are complications and whether symptoms depend on a dose; in particular, whether there was an additional trauma or physical injury which influence a degree of acute intoxication, and whether there were other medical complications, for example: vomiting with blood, aspiration of emetic masses, delirium, perceptual disorders, coma or spasms. All complications considerably influence the clinical picture of intoxication and change therapeutic tactics; they complicate the definition of depth of intoxication. At intoxication by small doses of alcohol the development of pathological intoxication is probable, at which the disturbance of orientation with inadequate actions, including aggressive, occurs.

The use with harmful consequences. Harmful consequences resulting from the use of psychoactive substances are considered to be somatic symptoms of intoxication (for example, hepatitis, myocarditis) or mental disorders (for example, secondary depression after alcohol use or epileptic attacks are possible). However, as a result of their use the patient damages not only his mentality or physical condition, but also inflicts damage on the social environment. His relations in family, social success become poor; he may be aggressive and commit criminal acts, which in majority of cases of judiciary practice occur on a background of intoxication or abstinence. The social damage is also expressed in the fact that persons using psychoactive substances are quite often distributors of these substances.

Syndrome of dependence on psychoactive substances consists of symptoms of physiological, behavioural and cognitive phenomena at which the use of substance or a class of substances begins to dominate in the system of values of an individual and supersedes other interests. The

basic characteristics of the syndrome of dependence is the desire to take a psychoactive substance. They say that in physiological sense (physical dependence) the necessity to take substance is caused by the experience of somatic well-being which may be achieved only under this condition. The behavioural and cognitive necessity (mental dependence) is caused by the fact that the patient is incapable to think, work, relieve strain, anxiety without taking this substance.

Both strongly expressed desire and the necessity to take a psychoactive substance are characteristic of the syndrome; otherwise the distressing phenomena of abstinence occur. The patient thus is not capable of controlling a dose of the taken substance, the beginning and termination of its use. Thus, the patient with alcoholism begins to drink before the expected celebration and continues to drink after its finishing, changing one type of alcoholic drinks by another. The syndrome of dependence includes the presence of conditions of cancellation after the termination of intake. It frequently motivates the patient to take substance, which is already considered not as a means of euphoria but as an opportunity to get rid of conditions of cancellation. The excess of tolerance is typical of dependence, that is, for the former narcotic effect each time a higher and higher dosage is required. As a result of syndrome of dependence all other interests not connected with substance are superseded and become insignificant, and the time spent on its taking is longer, as well as the time spent on restoration of health after terminating the action of substance. The patient continues to take substance, despite the obvious harmful consequences, such as damage of the liver, depressions after the periods of intensive intake of substance, feebleness of intellectual functions, deterioration of the economic situation owing to the use of drugs. That is, the patient primarily realizes and then ceases to realize harmful consequences of dependence and is completely in the power of his habit. In the course of intake at formation of the syndrome of dependence the range of consumption of substance varies, it is more frequently narrowed. The dependence may be considered not only usage of the given substance, but also the desire to use it. The patient begins to realize his abnormal attraction when he tries to get rid of or just limit the intake of substance. These attempts may be connected with the fact that he does not have means to buy the following dose, or under the influence of associates he should limit himself in intake.

The syndrome of dependence may be manifested in relation to a certain substance, class of substances or a wider range of various substances. Thus, some patients begin to take any accessible drugs at once, without any system, and at their cancellation they have anxiety, agitation and/or physical signs of syndrome of cancellation, which are difficult to associate with any of the substances. Some drug addicts are fixed only on one substance, and others consider a drug as a means of liquidation of syndrome of cancellation. Though the syndrome of dependence is distinct enough, nevertheless the patient at the moment may have abstention for personal motives, for example psychological or social ones. Other patients stop intake for a while, though they experience striving for taking a drug because they are in prison or in clinic. Some patients do not take a psychoactive substance, despite striving for it, because they take Methadone or Nal-threxon (Anthaxone) at opiate dependence, or chew a nicotinic chewing gum (smokers), or are compelled by the environment to attend supporting psychotherapeutic sessions.

The condition of cancellation. The group of symptoms of various combination and degree of severity, manifested at complete or partial termination of intake of substance after repeated, usually long and/or high-dosage intake of the given substance relate to conditions of cancellation. The onset and course of the syndrome of cancellation are limited in time and correspond to the type of substance and dose, directly preceding abstention. Usually the conditions of cancellation develop less than in 24 hours after the intake of the last dose. They consist of

physiological, behavioural and cognitive symptoms. During cancellation spasms are possible.

The syndrome of cancellation is one of the manifestations of the syndrome of dependence and may be the basic diagnosis if it is sufficiently expressed and is the immediate reason for reference to the doctor.

Physical disturbances may vary depending on the used substance, but more often they speak about vegetative reactions, articular, gastrointestinal, cardiovascular disorders. For the syndrome of cancellation mental disorders, such as anxiety, alarm, irritability, weakness, depression, disturbances of sleep are also characteristic. Usually the patient states that the syndrome of cancellation is relieved by the subsequent intake of substance. Sometimes the syndrome of cancellation occurs without previous intake, as a peculiar reflex, which was earlier repeatedly fixed. For example, at alcoholism, when within a year the patient has not used alcoholic drinks, mental equivalents of the syndrome of cancellation may occur after acute stress.

The condition of cancellation with delirium. The condition of the syndrome of cancellation may be accompanied by delirium, precisely the same, as described above, that is, after the period of alarm and anxiety with vegetative symptoms and disturbances of sleep the disorientation in place and time with inflow of frightening visual hallucinations, with fear and excitation occurs. After the last intake of psychoactive substances from 24 hours up to 3 days may pass, this delirium may be accompanied by generalized epilepsy.

Psychotic disorder. The disorder occurring during or immediately after the intake of psychoactive substance is characterized by bright hallucinations (usually acoustic, but frequently affecting more than one sphere of senses), false recognition, delirium and/or ideas of relation (frequently of a paranoid or persecution character), affect (because of strong fear up to ecstasy). Consciousness is usually clear, though some degree of its aberration not passing into severe confusion is possible. The disorder is usually over within a month, sometimes partially, and completely — within 6 months. It is important that psychotic disorder develops during or immediately after

the intake of psychoactive substance (usually within 48 hours), its symptoms are rather variable depending on type of substance and personality of the user. Thus, in persons with high intelligence the prolonged control of his experiences is possible.

Difficulties arise in cases with intake of substances with initial hallucinogen effect. In this case the diagnosis of acute intoxication is made, as perceptual disorders themselves may occur not during cancellation but as a result of hallucinogen.

The clinical picture of psychotic disorder may be schizophreniclike, delirious, hallucinatory or polymorphic, but may include depressions, manic conditions. For example, psychotic disorders as a result of the use of cannabioids are rather exact exogenic models of schizophrenia.

The amnestic syndrome is understood as chronic expressed derangement of memory for the recent events; memory for the remote events is sometimes disturbed, while the immediate reproduction of these events is kept. The disturbance of time sense and event order is typical, as well as the ability to mastering a new material. Patients frequently name actual dates in future and in the past. Confabulations are possible but not obligatory. The main symptoms are fixation disorders of memorv and disturbance of orientation in time at absence of pathology of cognitive functions, thus in the anamnesis or from words of relatives there should be objective proofs of chronic use of psychoactive substances. Usually the person is distinguished by features of dependence, insincerity, and apathetic features.

Alcoholism

Aetiology

The basis of alcoholism is biological, social, psychological reasons. The biological reasons are genetic determination of alcoholism, connection of alcoholism with deficiency of serotonin and insufficient ability of the brain to oxidation of aldehydes. The level of alcohol-dehydrogenase considerably varies in different ethnic groups and is obviously higher, for example, in Slavs in comparison with paleoafri-can and Turkic groups. It is supposed that lack of noradrenaline and excess of dopamine may contribute to alcoholic psychoses. Probably, alcoholism is connected with hypothetical alcogene, dopamine-2-re-ceptor gene. There are families in which alcoholism is transmitted according to prepotent, recessive type, is bound to sex or occurs similarly to mutation. In blood of patients with alcoholism the level of tryptophane, predecessor of serotonin, is lower.

The social reasons of alcoholism are stress, family dysadapta-tion, reduction of the economic level, imitation of associates at children's and adolescent age.

The psychological reasons are taking alcohol as preparation im-proving communications, as antidepressant for reduction of the level of anxiety. Therefore alcoholism is frequently a mask of affective disorders. Besides, some personal features themselves may be levelled by taking alcohol, though alcoholism, ordinarily, will further intensify them.

Disease Incidence

During life alcohol even once is taken by 95 % of population, 5 % take alcoholic drinks daily, however alcoholism develops in approximately 1 % of population. In women alcoholism is encountered less often, but proceeds more malignantly. There are ethnic distinctions of alcoholic strength of taken drinks, for example, in such African country as Ghana, per capita intake of beer daily is 10 times higher than on average in Europe; in France — of red dry wine — is 10 times higher than in Russia. The alcoholic strength of taken drinks as a whole increases from the equator to the North Pole, but does not increase from the equator to the South Pole.

Clinical Features

Inadequacy of behaviour, euphoria, incoherent, frequently ac-celerated speech, loss of delicate coordination, unsteadiness of gait, nistagm, reddening of integuments of the body are characteristic of acute intoxication. Methods of definition of alcohol are applied to diagnostics of alcoholic intoxication in exhaled air (tests of Rappoport and Mokhov-Shinkarenko). With the help of gas-liquid chromatography and spectrometry alcohol is defined in blood and urine, as well as in the contents of the stomach. To mild intoxication 0. 5-1. 5 g/1 of alcohol in blood correspond (constant endogen background of alcohol connected to metabolism is about 0.02 g/I), moderate intoxication is 1.5-3 g/1, severe intoxication — 3-5 g/1. Higher doses may be fatal.

Common, atypical and pathological intoxication is distinguished. The reasons of atypical intoxication are: an organic background, coincidence between intoxication and abnormal affective **background or intake together with alcohol of other psychoactive substances, for example KJophelin or tranquilizers.**

A clinical example of atypical intoxication is as follows:

Patient I., aged 35, a year ago suffered a craniocerebral trauma; he is periodically disturbed by sleeplessness, weakness tonight and headaches. In this connection he took tranquilizers before sleep. Once in the evening after taking a preparation guests arrived, with whom he «had to drink» 100 g of vodka. Earlier this dose had been quite ordinary for him. But that time at the moment of intoxication he «became sad», cried, considered his life wasted; he said goodbye to everybody, tried to cut his veins in the bathroom. Later amnesia on the events of drunkenness was absent.

A clinical example of pathological intoxication is as follows:

Patient E. *(42 years old), a well-known surgeon, during almost a week operated much, slept little. He was called in to tite district hospital on a sanitary airplane. At night he performed a difficult operation, which had*

been finished only by four o'clock in the morning. Tlie colleague suggested to drink a little cognac in order «to fall asleep». He drank 150 g, went to bed in the office of the head of the department. The subsequent events were forgotten, though they were a subject of trial of judicial experts. In 20 minutes after going to bed, he got up and, according to witness of the personnel, entered the ward where the patient-woman having been operated by him was lying; he tried to rape her. He behaved aggressively with the personnel, broke the window of the ward. After fixation he fell asleep, the events of intoxication were forgotten by him.

As a result of intake of alcohol the social reduction and dys-adaptation is marked, the symptoms of somatic changes of the liver, brain, cardiovascular system are revealed more often, the personality which interests are fixed on taking alcoholic drinks changes. Usually the symptoms of somatic disorders are masked by intake of alcoholic drinks, but after the termination of taking alcoholic drinks patients begin to complain of them.

Patient A. (53 years old) is a teacher by specialty. Earlier lw used alcoholic drinks moderately, but recently his wife has noticed him to have taken to drinking daily, more often in the evening; he hides alcoholic drinks in various secret places. However, in the conversation lie denies it in every possible way, saying «1 am always sober at work». In a more detailed conversation he has confessed that he has pains in the cliest, which he did not want to inform about, and the pains disappear after taking alcolwlic drinks. On a roentgenogram tuberculoma is revealed. After the operation the dependence on alcohol has disappeared.

Social dysadaptation and regression are found out in delicate peculiarities of behaviour. For example, the patient

- tries to distance from the former acquaintances who do not approve of his habit, especially in respect to colleagues, un-derstanding that he may «smell not so well»;
- ceases to pay attention to cleanliness of his clothes and body;
- outstrips in taking alcoholic drinks at table during a holiday, drinking up before the first toast, and during the toast;
- may drink within a day different types of alcoholic drinks;
- reacts even to insignificant stress by striving «to have a drink and thus calm down»;
- explains the use of alcoholic drinks by absence of prospects, failures;
- loses interest in social relations and is fixed on a group of persons, «with whom it is possible to have a merry-meeting».

A consecutive formation of mental and physical dependence is characteristic of the syndrome of dependence on alcohol. A sign of occurrence of physical dependence is the formation of the abstinence syndrome which is controlled by the subsequent dose of alcohol. Mental dependence consists in the fact that alcoholic drinks extinguish any emotional strain connected to insignificant influence. Thus, high and low spirits are a sufficient occasion for spree. Loss of control over the amount of the drunk alcohol and episodes of amnesia during deep intoxication are possible. The patient usually denies the presence of mental dependence and compensates his behaviour by any kind of dodges, for example, hides alcoholic drinks from relatives who do not approve of his behaviour, or tries to involve them in his behaviour. A sign of physical dependence is abstinence, usually in the morning, which may be controlled only by alcoholic drinks. Usually in some time the dependence results in hard drinking which lasts for some days. In the former native classification the formation of mental dependence referred to the 1 stage of alcoholism, and physical dependence — to the 2 stage; to the 3 stage alcoholism with encephalopathy and changes of other internal organs referred. Cirrhosis of the liver, alcoholic cardiomyopathy, polyneuropathy, feminization of men and masculinization of women are typical of this syndrome. Besides, in patients with alcoholism the risk of traumatism, suicide, poisoning is increased. Tolerance in the first stage grows and achieves a plateau in the second stage, in the third stage it is considerably decreased. If in the period

of abstinence the somatic disorders occur, they may become decompensated and even lead to the patient's death.

The syndrome of cancellation is expressed in abstinence Tremor, nausea or vomiting, weakness, vegetative disorders, alarm, low spirits, headache, sleeplessness, hyperreflection, spasms (alcoholic epilepsy) as symptoms of abstinence occur in 10-20 hours after the termination of taking alcoholic drinks. Intake of alcohol results in mitigation of abstinence and consequently at personal degradation patients strive to find a new dose of alcoholic drinks.

The syndrome of cancellation at youthful alcoholism is an un-favorable prognostic sign of fast alcoholic degradation. Spasms during cancellation may be in patients with dipsomania, *i. e.* impulsive heavy drinking sessoins, after the sufferred craniocerebral traumas or at intoxications by surrogates of alcohol.

Classical psychotic disorder at alcoholism is alcoholic delirium (delirium tremens), alcoholic paranoid and hallucinosis.

Delirium occurs on the 2-3 day, usually in the evening, after the termination of heavy drinking, on a background of alarm, fear, confusion, vegetative disorders. The patient is disoriented in place and time. The inflow of frightening visual zooptic hallucinations is marked, which determine the behaviour of the patient. At combination of delirium with a somatic pathology the exacerbation of disorder of consciousness up to muttering (muttering delirium) and amentia is probable. Sometimes in the structure of experiences there is a schizophrenic-like semiology with the symptom of openness of ideas, delirium of influence and prosecution. However, these cases require great attention as are frequently connected with the combination of schizophrenia and alcoholism (Greter's schizophrenia).

Patient A. is 38 years old. Heavy drinking sessions are marked within a year and proceed for a week, a clear interval is 1-2 months. After the usual heavy drinking in 2 days in the evening lie began to

feel the increasing alarm and uncertain fear, he could not drink any more, as «he constantly felt nausea», there was expressed tremor. In front of the windoto he saw the hung up, whose bodies were shaken by the wind. Half-naked, he ran out to the street. Tlie street seemed especially gloomy and strange. He noticed that this sensation was connected xuith the fact tliat along tlte side of the road there were bodies of dead, dug to the ground up to the waste, who, trying to get out of the ground, approached him. He locked himself at home and prepared an axe. He took employees of the first aid for «alive dead persons. At the department he asked not to torment him and kill as soon as possible, he saw a falling ceiling - «someone was looking at him from behind it*.*

Alcoholic paranoid may remind of acute transient psychotic disorder, proceed on a background of abstinence at mental strain. The symptoms and signs are ideas of prosecution, relation; the ideas of jealousy are typical. In the latter case the course of paranoid is chronic.

At acute alcoholic hallucinosis on a background of changed con-sciousness there are true acoustical hallucinations of the commenting contents, imperative hallucinations.

Patient N., 45 years old. The alcoliolic experience is 10 years, heavy drinking sessions last for a year with a 2-week duration, tolerance is up to 1 litre of vodka per day. He was compelled to stop drinking, as lie got into the surgical, and then reanimation department after perforated ulcer of the stomach. In two days at the department lie began to hear, how the personnel agreed at night to remove his sutures and carry out the experiment on implantation of«some organism. A certain positive doctor counteracted these intentions and strictly ordered him to hide, as soon as somebody entered the ward. So, he did it. Being transferred to the psychiatric department, he assured that, apparently, those experiments proceeded there as well, as in the corridor in the evening tliey constantly whispered — «it is, probably, tlie scale program in which secret service participates*. He mysteriously informed that the voice of the positive doctor became louder, and he ordered him not to speak about tlie details of the plan. The essence of*

the plan consists in counteraction «to receiving the internal organs which are sent abroad. The duration of the psychotic period is 1 month.*

The amnestic syndrome at alcoholism is manifested in the structure of Korsakoff's psychosis, Wernicke's encephalopathy, hepatic encephalopathy. Korsakoff's psychosis is characterized by fixation amnesia, retroanterograde amnesia, confabulations and pseudoreminiscences that are combined with polyneuropathy. Unsteadiness of gait and polyneuropathy may precede the amnestic disorders. Acute alcoholic encephalopathy of Gaye-Wernicke develops as a result of thiamine deficiency. There is confusion of consciousness, apathy and drowsiness, which pass into sopor and coma, acute and subacute ophthalmoplegia and instability of gait. The combination of Wernicke's encephalopathy and Korsakoff's psychosis (Wernicke-Korsakoff's syndrome) is possible. At hepatic encephalopathy sensitivity is disturbed, tremor, hyperreflexia, sometimes spasms, dysarthria, choreoathetosis, ataxia and dementia with derangements of memory are observed. The expressiveness of amnestic disorders is not always connected with the alcoholic experience and tolerance, but frequently — with hypovitaminosis, age, additional somatic pathology.

Alcoholic changes of personality include emotional disturbances, including affective instability, depression, falsity, egocentrism, feeling of fault and anxiety. On the one hand, the patients frequently with readiness respond to requests, but on the other hand they quickly forget about them and are absorbed in their egocentric world which main value is binge. It results in loss of trust of associates and deprivation of the alcoholic of social support. Troubles have a snowball effect, if the behaviour comes in conflict with the law and the patient loses his family. The feeling of repentance may be deep and even results in patient's suicidal ideas and acts, especially if they are socially dysadap-tive. The symptoms of gramophone records with constant stereotyped returning to one and the same stagnant phrases of speech, to the same histories from the past are characteristic. In the residual period chronic hallucinoses are also marked, which are accompanied by acoustical commenting and menacing true hallucinations.

Diagnostics

The diagnosis is based on the data of the anamnesis, research of alcohol level in blood, revealing clinical symptoms of dependence and cancellation, as well as alcoholic changes of personality. Constant ideas about binge, self-justification, feeling of fault, depression and alarm, attacks of fury and aggression, dreams of alcoholic contents, reduction of cognitive status and success are typical of psychological characteristics. At somatic research the liver is enlarged, there is tremor, nausea, hyperhidrosis, weakness and decrease of sensitivity stop, murmurs in the heart and extrasystoles, pink acne (a red nose), telangiectasia, signs of dehydration with the decreased turgor of the skin, accelerated involution, hypogonadism, androgenization in women and feminization in men.

Therapy

At acute intoxication thiamin and other vitamins of group B are injected, disintoxication is carried out. For disintoxication the abundant introduction of liquid is applied (drinking, intravenous injecting of solutions of glucose with small doses of insulin and cardiacs, vitaminized physiological solutions, haemodes, polyglucin), diuretic drugs. Nootropics and preparations improving the work of the liver (Heptral) are also used. The correction of behaviour is carried out by benzodiazepines. To come out of coma, Naloxon or Antaxon are used. At syndrome of alcohol cancellation benzodiazepine, small doses of Haldol and antispasmodic preparations, sometimes beta-blockers (Atenolol, Propranolol) are administered. Similar actions are undertaken at treatment of psychoses. The course of treatment of alcoholic dependence includes behavioural therapy; aversion to alcohol is achieved by Teturam (Esperal) or with the help of hypnotherapy. For psychological correction methods of provocative psychotherapy, group methods in the clubs of anonymous alcoholics are applied. Taking into account that alcoholic dependence may only serve as a cover of the developing depression, it is necessary to

administer average doses of antidepressants (Amitriptyline, Melipramin, Remeron).

Opiomania

Aetiology

This includes the dependence on drugs of opioid group to which morphine, codeine as natural products of poppy, and opiate-like compounds (Methadone, Heroin, Fentanyl) belong. There are three types of opiate receptors: mu, kappa and delta. Linkage of morphine is associated with mu-receptors in rostraventral nucleus, thalamus and posterior horn of the spinal cord. The mu-receptor participates in the development of euphoria, miosis and oppression of respiration. Other opiate receptors are bound by encephalin and other opiate synthetic compounds. Probably, susceptibility to narcomania is connected with genetically determined level of receptors. A marker of the level of receptors is affective instability and, probably, aspiration to asociality.

Disease Incidence

Opioids are the most commonly used narcotic substances after cannabioids. For patients, using these psychoactive substances, asocial behaviour and asocial features in premorbid period are typical.

Clinical Features

Acute intoxication is characterized by analgesia and euphoria, the pupils are narrowed (punctate, pinhole), there is suppression of cough reflex, respiratory depression and peristalsis, reduction of libido, bradycardia and hypotonia.

The syndrome of dependence, peripheral neuropathy, myelopathy are formed, the tactile sensitivity is reduced, there are unstable changes of mood. The increase of incidence of respiratory diseases, nausea and vomiting, nephropathy and disturbance of menses cycle are very steady symptoms of syndrome of cancellation. There is a change of personality with tendency to asociality, egocentric striving for drugs.

Alarm and fear are characteristic of syndrome of cancellation, a passionate striving for drug is also typical. The following are marked: hyperhidrosis, stuffiness in the nose and rhinitis, constant yawning, epiphoria, mydriatic pupils, gastric colic, tremor and muscular pains, diarrhea, fever, chill and headache, increase of arterial pressure and tachycardia. At prolonged (for some months) abstinence there is hypotonia and sleeplessness, bradycardia and passivity, decrease of appetite, striving for drugs.

In the period of abstinence the development of paranoid disorders with the ideas of prosecution and schizophrenic-like psychoses, as well as deep depressions is possible.

Amnestic disorders proceed in the form of episodes of retro-anterograde amnesia.

Diagnostics

It is based on revealing opioids in plasma and urine, on the data of anamnesis, typical picture of opioid intoxication, as well as on reaction to introduction of a sample dose of Naloxon, which at intravenous injection in a dose of 0. 2-0. 4 mg changes (more often controls) a clinical picture of syndrome of cancellation.

Therapy

The therapy of acute overdosage of opiates includes application of Naloxon (0. 01 mg per kg of weight) or Antaxon. Methods of detoxication with the help of hemosorption, hemodialysis, intravenous injection of Novocain and benzodiazepines are applied. To the specific therapy the following refers: methadone initial therapy at detoxication and as a supporting therapy during rehabilitation; treatment with Clonidin in the course of detoxication, and also the therapy with Naloxon and Nalthrexon or Buprenorphine as a partial agonist of opiate. There is also an experience of coming out from intoxication with Oxitocine in a dose up to 2. 0 mg i. v.

daily. A long and persistent group and individual psychotherapy and rehabilitation in the specialized centres are also required.

Hashishism

Aetiology

The dusty flowers and leaves of hemp (anasha, marihuana) are also used for manufacturing hashish — resin, which contains concentrate of the substance. Its boiling, smoking, eating results in narcotic intoxication due to tetrahydrocannabiol, cannabiol and cannabiodyl which are bound to G-protein-containing receptors of neurons. Depending on a dose, the stimulating, sedative and hallucinogenic effects occur.

Disease Incidence

It is considered that from 10 to 60 % of teenagers tried to apply cannabis, however, daily about 2 % of students use them.

Clinical Features

Acute intoxication is characterized by relaxation and euphoria, mydriatic pupils, hyperemia of conjunctiva, dryness of mucous membranes, the increased appetite, rhinitis. The speech is incoherent; complex motor functions and coordination are disturberd. There is a sharp increase of libido and appetite («ravenous appetite»).

The following are characteristic: chronic fatigue and lethargy, chronic nausea and vomiting, headaches, irritability; edema of uvula, dry non-productive cough, stuffiness of the nose, chronic bronchitis, abatement of eye reactions, impotence and barrenness; attacks of panic, suicide attempts, deterioration of short-term memory, depressions, social self-isolation, termination of the vigorous activity. Mental dependence prevails. Patients motivate the repeated use of the drug by slackening the thought processes. Weak physical dependence and syndrome of cancellation are characteristic. Psychoses with inclusion of acoustical and visual hallucinations, schizophrenic-like conditions with the symptom of openness of idea, symptoms of the first rank, depersonalization, peculiar to schizophrenia are possible, as well as the expressed depressions and dementia with the loss of cognitive abilities.

Diagnostics

It is based on symptoms and signs of acute intoxication, data o anamnesis and urinanalysis for cannabis.

Therapy

It includes methods of behavioural therapy and psychotherapy. At treatment of acute conditions of intoxication benzodiazepines with anxiolytic effect are applied.

Cocainism

Aetiology

Cocaine exists in the form of cocaine-HCl, cocaine-base. The former has a bitter taste and soluble in water. To the powder cheaper stimulators are added, and also local anesthetics, the «freezing» effects of which are taken for the effect of cocaine. Crystals of cocaine alkaloid are received by heating (or smoking (Crack) powder of the cocaine-base at its mixing with water and baking soda. The preparation is injected intravenously, it is smoked, smelt. It increases the synaptic levels of dopamine, noradrenaline, serotonin by suppression of their return capture in synaptic space.

Clinical Features

Euphoria, inflow of energy, amplification of determinative opportunities of perception, amplification of intellectual activity, reduction of appetite, anxiety, decrease of necessity of sleep, increase of self-confidence are typical of cocaine intoxication.

At long use pain behind the breastbone, myocardial infarction, sudden death, pneumothorax, pulmonary edema, keratitis, necrotizing

ulcerative gingivitis, olfactory changes occur. Depressions and episodes of anxiety, drive for suicides and accidents, spasms, hyperthermia take place.

The syndrome of cancellation after termination of use of preparation is marked during 1-5 days. Depressions, blues, irritability, sleeplessness, apathy, lethargy are typical.

Cocaine delirium is accompanied by tactile and olfactory hallucinations, incoherence of thinking, disorientation. Cocaine delirious disorder is characterized by ideas of prosecution, suspiciousness, attacks of aggression. The features of schizophrenic-like cocaine disorder are inadequacy of behaviour, dysphoria, acoustical, visual and tactile hallucinations (cocaine beetles, teeming under the skin), ideas of influence.

Diagnostics

The symptoms of cocaine intoxication are the following: perforation of the nasal septum, cocaine traces in the place of injections (salmon bruises), crack keratosis, crack finger as a result of repeated contact of the finger with a wheel of a lighter, crack hand with hyperkeratosis and thermal changes, erosion of teeth.

Therapy

It includes detoxication with the usage of Bromcryptine and antidepressants. Benzodiazepines, cooling envelopment, beta-blockers and calcium channel inhibitors, the activated coal and laxatives are also applied. The psychotherapy directed against relapse, behavioural therapy are used.

Psychostimulants Including Caffeine

Aetiology

The group includes amphetamines and caffeine. To amphetamines ephedrin, d-metamphetamine (ice) which is also used for smoking relate. They are indirect monoamine agonists that release noradrenaline, serotonin, dopamine from presynaptic endings. Caffeine, theobromin and theophyllin block adenosine receptors and induce the displacement of endocellular calcium, and also inhibit the enzyme of phosphodiesterase. They are antagonists of adenosine receptors.

Clinical Features

At acute intoxication the increase of work capacity, activity, decreased fatigueability, high spirits, the increase of concentration of attention, decreased appetite, sleeplessness, spasms, tremor are observed- The fatal dose of caffeine makes up 100 teaspoonfuls of dry soluble coffee a day.

To somatic symptoms of intoxication palpitation and stenocardia pain, arrhythmia and extrasystoles, expansion of bronchial tubes, anorexia, nausea, diarrhea, metal smack in the mouth, diuretic effect, morbidity in the chest refer. To psychopathological disturbances narcolepsy, stereotypy, asthenia and alarm relate.

The syndrome of cancellation is expressed by a headache, fever, tremor, vegetative disorders, change of potency, diarrhea, and pains in the stomach.

Amphetamine psychosis is similar to acute manic episode, with inflow of bright visual, olfactory and tactile hallucinations and amplification of imagination. Paranoid psychoses proceeds with delirium of prosecution and depressive episodes.

Diagnostics

The diagnosis is made on the basis of the anamnesis data, clinical picture of intoxication.

Therapy

The treatment is symptomatic, including detoxication, small doses of Haloperidol or Aminazine, the temperature control, introduction of blockers of alpha-receptors. Psychotherapy and behavioural therapy are applied.

Hallucinogens

Aetiology

The use of psychotomimetics such as LSD, mescaline, psilocybin, and also phencyclidine and «ecstasy» (3,4-methylendioximetampheta-mine), having both hallucinogen and amphetamine effects. They are used per os, as applications to mucous membranes, in cigarettes.

Disease Incidence

The disorders develop due to psychodelic movement in modern culture.

Clinical Features

The uncontrollable laughter, crying, change of mood, forma! disorders of thinking, euphoria, synesthesias, depersonalization and derealization are typical of acute intoxication. Phencyclidine intoxication reminds of amphetamine one.

To somatic symptoms the following refer: tachycardia, increase of arterial pressure, mydriasis, hyperhidrosis, rise of temperature, nausea, dizziness; to psychopathological ones — mental flattening, depression.

The syndrome of cancellation is manifested by the change of mood. The strongly expressed syndrome of cancellation is absent.

Psychoses like a schizophrenic-like disorder with symptoms of depersonalization and derealization, attacks of panic, deformed perception of time, visual and acoustical pseudo- and true hallucinations, stereotyped recurrence of visions, ideas of influence are possible. Delirious ideas of relation, significance and prosecution are characteristic.

Diagnostics

It is based on the data of anamnesis and the description of clinical features of intoxication.

Therapy

Benzodiazepines and barbiturates, detoxication and increase of excretion of psychoactive substances are used.

Nicotinism

Aetiology

The basic mechanism of psychoactive action of nicotine is its binding to cholinergic and nicotinic receptors in the CNS, brain substance of the adrenal glands, nervous-muscular synapses and vegetative ganglions.

Disease Incidence

About **30** % of population smoke cigarettes, mainly at the age of 20-45, more often men than women. Heavy smokers (chain-smokers) are considered those smoking more than 20 cigarettes a day.

Clinical Features

Nausea and vomiting, hypererethism, relaxation at stress, reduction of feeling of hunger, amplification of sleeplessness, tremor, relaxation of skeletal muscles, improvement of short-term memory are marked at acute intoxication.

Somatic changes are in the form of decrease of coronary blood flow and arterial pressure, temperature, vasoconstriction, acceleration of menopause and decrease of the catecholamine level, osteoporosis, cough, high risk of development of neoplastic processes and psychosomatic disorders.

At cancellation there is dizziness, hyperosmia, irritability and alarm, defective short-term memory, cough, change of arterial pressure.

Diagnostics

It is on the basis of the anamnesis data.

Therapy

The following is administered: behavioural therapy, group therapy and psychotherapy; Nicotin-substitutive therapy — nicotinic chewing gums and transdermal nicotinic plasters, Clonidine.

Schizophrenia and Related Disorders

Schizophrenia

Aetiology and Pathogenesis

The most recognized is the genetic nature of schizophrenia, which is proven as a result of researches of risk of disease development at mono- and dizygotic twins, at siblings, parents and children, and also as a result of studying the adopted children of parents, suffering from schizophrenia. However, there are equally convincing data that schizophrenia is caused by one gene (monogenic theory) with varying expressivity and incomplete penetrance, a small amount of genes (oligogenic theory), a great number of genes (polygenic theory) or plural mutation.

Constitutional factors take part in the formation of degree of expressiveness and reactivity of the process. Thus, in women and men schizophrenia proceeds more favourably and with tendency to periodicity, at the age over 40 the course of the disease is also more favourable. In men with asthenic constitution the disease more often proceeds continuously, and in women with pyknic constitution — more often periodically. However, the constitution itself does not define the susceptibility to the disease.

According to neurogenetic theories, the productive semiology of the disease is caused by dysfunction of the system of the brain caudate nucleus, limbic system. Non-coordination in work of hemispheres, dysfunction of frontocerebellar connections are found out. On CT it is possible to find out the expansion of the frontal and lateral horns of ventricle of the cerebrum systems. At nuclear forms of the disease on EEG the voltage from frontal lobes is reduced.

Biochemical researches have connected schizophrenia with excess of dopamine. Blocking dopamine at productive semiology by neuroleptics promotes relaxation of the patient. However, at defect the deficiency of not only dopamine but also other neurohormones (noradrenaline, serotonin) is marked, and at productive semiology the amount of not only dopamine, but also of holicyctokinin, somatostatin, vasopressin is increased. Various changes are marked in carbohydrate, albuminous metabolism, as well as in metabolism of lipoproteins.

Theories of psychology explain the development of the disease from the point of view of revival of archaic (Paleolithic, mythopoetic) thinking, influence of deprivation situation, selectively split information, which causes semantic aphasia. Pathopsychologists reveal in patients: a) difference and ambivalence of judgments, b) egocentric fixation at which judgments are carried out on the basis of own motives, c) «latent» signs in judgments.

Psychoanalytic theories explain the disease by the events of childhood: the influence of schizogenic, emotionally cold and severe mother, situation of emotional dissociation in family, fixation on or regress to narcissism or latent homosexuality.

Ecological theories explain the fact of primary birth of patients with schizophrenia in a cold season by the influence of prenatal deficiency of vitamins, mutagenous influence during spring conception of a child.

Evolutionary theories consider genesis of schizophrenia within the framework of evolutionary process either as «payment» for the increase of average intelligence of population and technological progress, or as «the latent potential" of the progress, which has not found its niche yet. The biological model of the disease is considered to be the reaction of stiffening — flight. The patients suffering from the disease have a number of selective advantages: they are more resistant to a radiative, pain,

temperature shock. Average intelligence of healthy children of parents suffering from schizophrenia is higher.

Disease Incidence

The risk of development of schizophrenia makes up 1%, and the disease incidence — 1 case per 1,000 people a year. The risk of development of schizophrenia increases at consanguinity marriages, aggravated in families of relatives of the first degree of relationship (mother, father, brothers, sisters). The corelation of women and men is equal, though delegability of the disease in men is higher. The birth and death rate of patients does not differ from the average population rate. The highest risk of development of the disease is at the age of 14-35.

Clinical Features

For the diagnostic group as a whole the combination of disorders of thinking, perception and emotional-willed disturbances which proceed not less than a month is characteristic; however a more exact diagnosis may be established only during a 6-month observation.

According to ICD 10, at least one of the following signs should be marked:

- «Echo of ideas» (sounding of own ideas), inserting or withdrawing ideas, openness of ideas.
- Delusion of affection, motor, touch, ideatory automatism, delirious perception. Such combination in Russian psychiatry is designated as Kandinsky-Clerambault syndrome.
- Acoustical commenting true and pseudo-hallucinations and somatic hallucinations.
- Delusional ideas which are culturally inadequate, ridiculous and grandiose in contents.

Or at least two of the following signs should be marked:

- Chronic (more than a month) hallucinations with delusion, but without the expressed affect.
- Neologisms, thought obstruction, incoherent speech.
- Catatonic behaviour.
- Negative symptoms, including apathy, abulia, impoverishment of speech, emotional inadequacy, including coldness.
- Qualitative changes of behaviour with the loss of interests, purposefulness, autism.

The course of schizophrenia may be established already in the period of manifest however, more exactly — after the third attack. At tendency to remissions of high quality the attacks are usually polymorphous, including the affect of alarm, fear. The following are distinguished:

- a continuous course, which means absence of remission within over a year;
- an incidental course with increasing defect when between the psychotic episodes the negative semiology progressively (continuously) increases;
- an incidental course with stable defect when between psychotic episodes a steady negative semiology is marked (an episodic course corresponds to the accepted in native psychiatry semiology of paroxysmal course);
- an incidental remitting course when complete remissions between episodes are marked (this variant of course corresponds to the accepted in the Russian psychiatry semiology of periodic course).

After attack the incomplete remission is also possible. A stable negative semiology during remissions (defect) includes: the absence of symptoms of productive semiology (encapsulation), disorders of behaviour, depression on a background of abulioapathetic syndrome, loss of communications, decrease of energy potential, autism and isolating, loss of understanding, instinctive regress.

Diagnostics

The diagnosis is made on the basis of revealing the basic productive symptoms of the disease, which are combined with the negative emotional-willed disorders resulting in the loss of interpersonal

communications at general duration of observation about **6** months. The revealing of symptoms of influence on ideas, acts and mood, acoustical pseudo-hallucinations, symptoms of openness of idea, severe formal disorders of thinking as incoherent, catatonic motor disorders are of the most important significance in diagnostics of productive disorders. Among negative disturbances the reduction of energy potential, estrangement and coldness, unreasonable hostility and loss of contacts, social decrease are paid attention to. The diagnosis is also confirmed by the data of pathopsychological researches; the genetic data about mental case of schizophrenia of relatives of the first degree of relationship have indirect value.

Paranoid Schizophrenia

The premorbid background is frequently without features. The initial period is short: from several days to several months. In symptomatology of this period there are symptoms of alarm, confusion, separate hallucinatory inclusions, disturbances of concentration of attention. The onset may also be as reactive paranoid or acute sensual delusion, which is primarily considered as acute transitional psychotic disorder with schizophrenia or schizophrenic-like symptoms. The manifestation period is at the age from 16 till 45 years.

At paranoid schizophrenia all variants of the course (continuous, incidental and remitting) are possible, and negative disturbances during remission include exacerbation of characteristic features, fixation of abulioapathic semiology, «encapsulation» at which separate symptoms of hallucinations and delusion are found out in the clinical picture of remission.

Patient L, **33** *years old. Premorbid background is zuithout features. After finishing school and seroice in the army he entered the State Institute and successfully graduated from it, worked as ait investigator in a seaside city. He demonstrated zeal for his work and highly estimated the attention of the heads. He is married, has a child. During an active work on investigation of a trivial minor offence he noticed that he ions watched in the toilet and in the bathroom. While he was taking a bath, «they turned on special gases», which made him fall asleep, and under this pretext stole the service documentation. Trying to connect the events, he understood that it was in the interests of one of his chiefs who wanted to hide his «shady dealings*. He began to spy on the boss, but «it appeared that he could oppose nothing to «high protection*. As a result «eavesdroppers» were established in his apartment, including the TV set, which controlled his ideas, switched on desires. Due to such «operative work*, each his action and idea became «the property of the Central administrative board*. He wrote a report to the «chain of command*, but was not understood, «as all liave mutual protection*. In his turn he began to set overhearing equipment in the study of the chief, but was detained at this moment and subject to special investigation. In psychomotor excitation he was delivered to psychiatric clinic. At hospitalization he kept silence, and later on said that could not have spoken because of constant control of his speech by the equipment.*

On outcome of psychosis in 10 days lie retired and got a job of a legal adviser, however, he still felt shadowing and control of ideas. He became indifferent towards his relatives, and at home usually did nothing, but designed the equipment against shadowing for hours on end. He went out in a special beret, in which microchips were built in for ^screening ideas». He hears a voice of a persecutor, who sometimes with special methods continues to subject his family to radiation influence.

Diagnostics

In the manifest period and further course of the disease the following is characteristic:

- delusion of prosecution, relation, value, high origin, special destination or ridiculous delusion of jealousy, delusion of influence;
- acoustical true and pseudo-hallucinations of a commenting, inconsistent, condemning and imperative character;

- olfactory, gustatory and somatic, including sexual, hallucinations.

Therapy

Up to now it has been considered that treatment of acute manifest psychosis at paranoid schizophrenia is better to start with de-toxication therapy, and also with neuroleptics. The presence in the structure of psychosis of depressive affect forces to apply antidepressants, but expansive affect may be controlled not only by Tizercine, but also by Carbamazepine and beta-blockers (Propranolol, Inderal). The beginning of paranoid schizophrenia at a youthful age is usually accompanied by an adverse course; therefore the increase of negative disorders can be prevented by Insulin-comatose therapy, with small doses of Rispolept (up to 2 mg) and other neuroleptic preparations. At acute psychosis the doses of Rispolept are increased up to 8 mg. As a supporting therapy neuroleptics-prolongers are applied, and at presence of affect in the structure of psychosis — lithium carbonate. The therapy is arranged either according to the principle of influence on the leading syndrome which is selected as a «target» of therapy, or to the principle of complex influence on the sum of symptoms. The beginning of therapy should be cautious to avoid dyskinetic complications. At resistance to therapy by neuroleptics monolateral ECT is applied, thus the application of electrodes depends on structure of the leading syndrome. The supporting therapy is carried out depending on features of clinical picture of attack: either by neuroleptics-pro-longers (Galoperidol-depot, Lioradyn-depot), or by neuroleptics in combination with lithium carbonate.

Hebephrenic Schizophrenia

In premorbid period the disorders of behaviour are frequent: anti-disciplinary, asocial and criminal behaviour. Early puberty and homosexual excesses are often dissociative features of personality. It is frequently perceived as distortion of pubertal crisis. The beginning more often occurs at the age of 14-18 years, though manifestation of later hebephrenia is possible. Further, in the manifest period, the triad, including the phenomenon of inactivity of ideas, unproductive euphoria and grimacing reminding of uncontrollable tics, is characteristic. The stylistics of behaviour is characterized by regress in speech (obscene speech), sexuality (casual and abnormal sexual communications and in other instinctive forms of behaviour (eating of inedible, aimless dromomania, untidiness).

Patient £., 20 years old. At adolescent age he was noted by intolerable behaviour. Suddenly and without any visible reasons lie came into conflict with friends and parents, spent nights in cellars, used hashish and alcoholic drinks, began to steal. With great difficulty he finished 9 classes, and went to specialized school, which he could not finish as he was brought to trial for hooliganism. Having returned home, he decided to come to reason, and xoent to work. But his attention was attracted by a certain girl, whom he began to show strange signs of attention. She worked in a big supermarket, and E. began to drop in at her in the evening. Meeting her, E. loudly spoke and used obscene expressions, spat, thus compromising her, but when she told him about it, he broke a shozv-window and scattered the goods in the shop. Besides, he became untidy and did not wash himself at all, spoke much, but without any sense and without main idea, his speech alternated with tirades of «fashionable expressions which he got from «new Russians*. He addressed a policeman zoith the request to accompany him to a restaurant for security and when the latter refused, he started fighting. He gave up his work and lived in a garbage heap not far from the shop of his beloved. But it did not confuse him at all, as ¡te stayed in constant euphoria. For that time he committed some ihefts, and was caught wlien he was stealing from a child a package with sugar candies. At hospitalization he foolishly laughed, grimaced, in speech there was a thematic slide.*

Diagnostics

In the structure of hebephrenic syndrome the following is distinguished:

- motor-volitional changes as grimacing, foolishness, regress of instincts, unmotivated euphoria, aimlessness and unpurposefulness;
- emotional inadequacy;
- formal paralogic disorders of thinking: philosophizing and incoherentness;
- undeveloped delirium and hallucinations which do not act on a foreground and are characterized by inclusions.

The course is more often continuous or incidental with the increasing defect. In the structure of defect there is a formation of dissocial and schizoid features of personality.

Therapy

The treatment includes application of insulinotherapy, hypervitamin therapy, tranquilizers and «big» neuroleptics (Aminazine, Mageptil, Tricedyl, Haloperidol, Zeprex, Risperidone in doses about 4 mg daily). The supporting therapy is carried out by combinations of neuroleptics-prolongers and lithium carbonate, which allow to control impulses, in particular aggressions.

Catatonic Schizophrenia

The premorbid background is characterized by schizoid disorders of personality though the development on premorbidly not changed background is possible. At the initial period there are depressive episodes, a simplex-syndrome with insularity, loss of the initiative and interests. Manifestation is probable as an acute motor stupor, after craniocerebral traumas, influenza, though more often psychosis develops without visible reasons.

* Classical catatonic schizophrenia proceeds as lucid catatonia, catatonic-paranoid conditions and oneiroid catatonia, as well as febrile catatonia. The motor component at catatonia is expressed in the form of stupor and excitation. Now classical catatonia has been replaced by microcatatonic conditions.

Catatonic stupor includes mutism, negativism, catalepsy, rigidity, stiffening, automatic obeying. Usually in stupor Pavlov's symptom (the patient answers a whispering speech, but does not react to a usual speech), the symptom of a cog-wheel (at bending and extension of arms jerky resistance is observed), the symptom of an air pillow (the head remains lifted after removing a pillow), the symptom of hood (the patient tries to cover himself and his head or covers the head with clothes) are marked.

Catatonic excitation proceeds With the phenomena of randomness, unpurposefulness, perseveration and incoherent thinking. All clinical features may be expressed either by change of excitation and stupor, or in the form of repeated stupors (agitation).

At lucid catatonia a purely motor psychosis is marked, and behind motor disorders no productive disturbances are marked.

Catatonic-paranoid variant assumes that behind catatonia the delusion is hidden. Frequently such productive disturbances can be indirectly revealed as a result of observation of the facial expression of the patient: he shifts his glance, the mimic expression changes irrespective of the context of the doctor's questions.

At oneiroid catatonia behind catatonia the inflow of fantastic visions of a cosmic, apocalyptical character is marked. The patient visits other worlds, paradise and hell. Amnesia on outcome of such condition is absent.

Febrile catatonia as a variant of catatonic schizophrenia is recognized by only some of psychiatrists; the majority consider that stupor accompanied by temperature is caused by either additional somatic pathology, or unrecognized trunk encephalitis, or malignant neuroleptic syndrome. In the clinical picture there are divergences in a pulse rate and temperature; petechial skin rash on the lower extremities, a grey pellicle on the mucosa of the lips occur, the muscular tone gradually rises.

The increased tone of muscles of the humeral zone, elevation of activity of the oral zone, stereotypification of the facial expression, pose, gesture, gait, speech stereotypy, mutism, stereotyped game by fingers, hypokinesia of pose, the reduced mobility of a hand at the increased

activity of fingers, absence of blinking refer to signs of microcatatonia. Sometimes catatonic stupor appears only in the form of mutism.

All variants of course are possible. The defect is usually expressed in abulioapathic conditions.

Diagnostics

The diagnosis is based on revealing of:

- stupor,
- chaotic, not purposeful excitation,
- catalepsy and negativism,
- rigidity,
- obeying and stereotypy (perseveration). Therapy

Moderate and large doses of neuroleptic preparations at catatonia may result in fixing symptoms and their transition into a chronic course. Therefore at stupor the therapy should be administered beginning with intravenous injections of tranquilizers with increasing doses of Oxybutiratis sodium, Droperidol, nootropics at careful observation of the somatic condition of the patient. A good effect is achieved by 5-6 sessions of ECT at bilateral setting of electrodes. The occurrence of febrile condition in the absence of contraindications forces to carry out ECT or transition to reanimation department. Catatonic excitation is controlled by Aminazine, Haloperidol, Tizercine.

Simplex Schizophrenia

Clinical Features

This type of schizophrenia is not included in the American classification as it is difficult for differentiating from dynamics of schizoid disorder of personality. However, if in premorbid period the personality was relatively harmonious, its transformation and occurrence of features of regress in combination with emotional-volitional disorders allow to assume the stated diagnosis.

The onset of the disease is from 14 till 20 years.

In the initial period there are obsessive-phobic, neurotic or affective episodes.

In the manifest period it is possible to note the formal disorders of thinking (autistic, symbolical, reasoning, paralogical), dysmor-phopsia, and cenestopathy. Negative symptoms of schizophrenia in emotional-volitional sphere are revealed, the activity is reduced, an emotional coldness occurs. Purpose assuming is disturbed, as a result of ambivalence the passivity occurs. Pauperization of thinking is accompanied by complaints of emptiness in the head; speech

is poor. Hypomimia, sometimes paramimias take place. The former acquaintances and friends are lost. The range of interests is narrowed or stereotyped, which may become pretentious. The autistic thinking may be actively manifested and demonstrated to associates (autism inside out), but more often it is concealed from associates by the external self-absorption, by staying in the world of imaginations which have nothing in common with the environment. Relatives frequently consider the patient lazy, growing stupid.

Patient A., aged 18. In childhood she was unsociable and reserved, did not have girlfriends, at school she sat alone at her desk. She read a lot, but basically the mystical literature, liked to dream in loneliness. At school she liked a boy, but could not show him her feelings. Examining herself in a mirror, she understood that «she could not be loved», she noticed asymmetry of the right and left half of the face, «strange eyes». She began to wear dark glasses constantly. Then she ceased to go out at all, explaining it by the fact that she should get ready for entrance examinations to the institute. However, all her preparation consisted in rearranging textbooks in which she underlined separate phrases and copied them down in a special notebook. Such activity was motivated not only by the necessity to learn something but to create «own opinion. She found out that she did not understand her parents at all. She reacted to remarks irritably, ceased to pay attention to her appearance, did not wash herself for weeks.*

At conversation she beliaves pretentiously, declaring that she thinks «about sense of life in an energy key» which was opened for her by biology. She is sure that she will enter the medical university in order to become a cosmetic surgeon and correct the form of her nose. She is emotionally cold when speaks on disease of her mother - «she has already lived the life. The speech is with a symptom of monologue, monotonous and poorly modulated, there are perseverations. At the department she copies down separate phrases, which she has earlier written out from books, from one copybook to another. The facial expression is emotionally cold. Incoordinated mimic movements and stereotypy of gesture are*

Diagnostics

The following is characteristic of the given type of schizophrenia:

- change of premorbid personality;
- emotional-volitional manifestations of schizophrenia as at residual schizophrenia;
- regress of behaviour and social degradation (vagrancy, self-absorption, aimlessness);

The course is usually continuous though there are cases with some regredientness and good social indemnification.

Therapy

The treatment is based on a short-term application of neuroleptic preparations and Risperidone in small doses, as well as Insulin-coma therapy. The significant attention should be paid to a complex of psychotherapeutic actions: behavioural, group therapy and psychoanalysis.

Chronic Delusion Disorders

Aetiology and Pathogenesis

The reason of chronic delusion may be explained by a special structure of personality, psychoanalytically and proceeding from the situation of the delirious environment. The paranoid structure of personality with suspiciousness, distrustfulness and animosity is, probably, caused by genetic mechanisms, but it finds its embodiment in behaviour and psychosis in concrete situations as a result of education or appearance in the special environment. Classical psychoanalysis explains paranoid disorder by the latent homosexuality (Shre-ber — S. Freid's case), but other cases may be explained by latent incest (for example, delusion of the double), exhibitionism (delusion of reforming), and also by the complex of castration. The development of delusion is promoted by suspiciousness of mother or father, a totalitarian society or closed community with systems of shadowing and control of behaviour, relative deafness and situation of emigration, especially in the absence of language knowledge.

Disease Incidence

The majority of cases are marked in out-patient conditions, and some of them find their social niches which may be, for example, judicial instances, political parties, sects. The induction of relatives is frequently marked.

Clinical Features

To this group both classical paranoia and systematized paraphrenia actually belong. In strict sense it is monothematic delirium, which for the second time may result in depression, if the patient cannot realize his monoidea or aggression against prospective enemies. The ideas of prosecution, greatness, relation, invention or reformation, jealousy and love or conviction of availability of a certain disease, religious ideas are affectively charged. Remissions are not observed, but there is also no emotional-willed defect. Sthenic patients frequently force the associates to trust them, and they are involved in struggle. At ideas of prosecution the patient may not only realize himself an object of shadowing that leads him to a constant change of residence, but also pursue one person or group of people by reason of «moral cleanliness». The ideas of greatness and religious ideas result in patients' leadership of heretical sects and new messianic sects. The ideas of jealousy and love (Clerambout's syndrome) are ridiculous, thus the object of love, which may be a celebrated person (actor, singer), may not suspect for a long time that he/she is an object of interest. The conviction of the patient of

availability of concrete disease in him frequently convinces doctors, whose manipulations (for example, diagnostic laparotomy) in their turn result in negative consequences (Munhousen's syndrome) and disability. In this connection the patient begins to pursue doctors already for other reasons. Inventors with monoideas pursue the representatives of the academic scientific institutions, demanding recognition, and threaten them. Similar actions are manifested by reformers — paranoiacs in relation to the governments and political parties.

> *Patient* A., *45 years of age. All her life she has lived alone, never has been married, is a virgin. She worked as a worker at a factory. Pains at the bottom of the abdomen began to disturb her, she addressed the gynecologist zoho «dropped a hint» that to find out an exact clinical picture, it would be necessary to make the incision of the hymen, the patient agreed to it. After the manipulation she noticed that she had special feelings to the gynecologist. She began to drop in at him almost each day, at night she experienced inflows of erotic imaginations in which the role of the partner was played by the gynecologist. The doctor, having noticed the pathological fixing of the patient, began to avoid her and did not let her in for reception. A. began to pursue him in the street, found out his phone number and sincerely told the wife of the doctor about her unearthly love. Besides, she daily wrote letters to him, which she handed over through the nurse, bribing her by gifts. Approaching the house of the doctor she experienced excitation and surge of passion. Once, hazung hidden in the entrance, she waited until the doctor came and began to kiss him but when he pushed her aside, she reproached him, cried, tore her clothes. At hospitalization she could speak only about her love, she assured that she would necessarily receive letters from the beloved, and all the same she would wait until he came. Under the influence of prosecutions the doctor cltanged the place of employment, but it did not help. After discharging from hospital A. found him and renewed prosecutions. Cutting out letters from newspapers, she wrote threats to his wife and letters to his heads at work in which she accused the doctor of various terrible vices.*

Diagnostics

The diagnosis is based on the following criteria: delusion of prosecution, relation, greatness, jealousy; erotic, hypohondriac delusions.

The duration is more than **3** months.

There are separate inclusions of hallucinations or depressions.

Therapy

Chronic delirious disorders hardly yield to therapy as patients refuse the intake of neuroleptic preparations and dissimi-late their experiences, they also frequently do not trust psychiatrists. Only at compulsory hospitalization it is possible slightly to mitigate delirious semiology by neuroleptics, but the supporting therapy without the control of relatives is refused by patients, therefore it is necessary to prefer neuroleptics-prolongers. The individual psychotherapeutic approach and accenting in contact of other areas of interests and experiences of the patient, for example somatoformic symptoms, affect, are recommended. The control of these disturbances indirectly helps in therapy of the basic disease, as well.

Acute and Transitory Psychotic Disorders

Aetiology and Pathogenesis

Acute transient psychotic disorders may be connected with stress: loss, situation of violence, imprisonment, mental pain, overstrain, for example, at long expectation, exhausting travelling. In this respect acute and partly long reactive psychoses relate to the given group. However,

they may also begin endogenously, being defined by internal experiences. In this case the given diagnosis is «cosmetic» for manifestations of schizophrenia or the first attack of schizoaffective disorders. It is expedient to make such diagnosis only at duration of disturbances of not more than 3 months.

Disease Incidence

Now this diagnosis is the most widespread at first hospitalization of patient in the reception-diagnostic department. Frequency of diagnostics varies from 4 to 6 cases per 1,000 people a year.

Clinical Features

After a short initial period with the phenomena of alarm, anxiety, sleeplessness and confusion an acute sensual delusion with fast changes of structure of delusion occurs. Acute psychosis proceeds from one to two weeks. The ideas of relation, value, prosecution, staging, false recognition and delusion of doubles (Capgra) occur on a background of mythological, symbolical interpretation of the environment, the patient himself appears in the centre of events. The experiences of personification of animals, plants, inanimate objects, separate inclusions of ideas of influence are frequent. Hallucinatory experiences, acoustical true and pseudo-hallucinations are not stable and quickly replace each other. Amnesia is absent, though the patient does not speak about his experiences at once, as if gradually recalling them. The affect of happiness, fear, surprise, confusion and bewilderment is present, as well as a sensation of «dream-like» experiences.

Psychoses of this group are frequently connected with stress, therefore at diagnostics it is indicated, whether psychosis is associated with stress or not. Acute transitory psychoses associated with stress were designated earlier as reactive. It is conditionally accepted that a stressor is the factor which precedes psychosis for less than 2 weeks. Nevertheless the clinical criteria of connection with a stressor are also important to which the following refers: evidence of stress situations in the clinical picture (for example, prosecution after real prosecution) and gradual fading of the given evidence after cancellation of a stressor action. Situations of separation and divorce, economic collapse and loss of social prestige, news about accident or observing an accident may act as a stressor.

Patient B., aged 42, is a businessman. In the period of economic crisis and sudden devaluation he lost the greater part of his fortune. He did not sleep for three nights, but his efforts to control the situation failed. He noticed that he was watched by creditors and tax police. To cover up his traces, he left Moscozo for Kiev, left his car in the unknown street and began to travel by trains. However, he noticed persecutors in carriages as well. At small stations he left carriage, threw away his documents, burnt the passport in the toilet. He addressed a friend of his with the request to hide him. He noticed the connection between the numbers of cars and date of his birth; he decided that he had disclosed tlie group, which was zoatching him. He heard their talks over the mobile phone. He felt fear, alarm, confusion. The condition was controlled after the second injection of Aminazine and Haloperidol.

Diagnostics

There is an acute development of delusion, hallucinations, incoherent speech; the duration of development of a complete picture is about 2 weeks.

Therapy

At treatment it is necessary to apply detoxication therapy, neuroleptics in moderate and sometimes maximal doses. The usual com-

binations are those of Aminazine and Haloperidol, Haloperidol and Triftazine or combinations of one of the «big» neuroleptics and a tranquilizer. In connection with a high risk of recurrent psychosis, some time after discharge from hospital (2-3 weeks), usually in the evening, the patient should take the supporting doses of neuroleptics.

Schizoaffective Disorders

Aetiology and Pathogenesis

Aetiology of schizoaffective disorders may be considered as a result of interaction of bilateral genetic burden with schizophrenia and affective disorders. There are, however, indications to genetic independence of these disorders, their gravitation to pyknic type. The factor of periodicity brings the given disorder together with epilepsy. It is also confirmed by the data of EEG: in some patients the paroxysmal activity in the right temporal area and diencephalic areas is marked.

Disease Incidence

The disease incidence varies depending on nosological orientation, but it is lower than at schizophrenia and affective disorders.

Clinical Features

Depending on nosological orientation, the given disorders with identical success were referred to periodic paranoid schizophrenia and atypical variants of affective psychoses (bipolar or recurrent).

Schizoaffective disorder is a transient endogenic functional disorder which is practically not accompanied by defect and in which the affective disturbances proceed longer than productive symptoms of schizophrenia. The attacks are distinguished by high polymorphism. The structure of attacks is depressive-paranoid and expansive-paranoid pictures.

Depressive-paranoid attacks are usually manifested by low spirits which are accompanied by delirious ideas of self-accusation, ideas of poisoning, infection with AIDS, cancer or other incurable diseases. At height of attack a depressive stupor or depressive oneiroid with immersing in depths of hell is possible. The inclusions of symptoms of the first rank peculiar to schizophrenia are probable, for example, the symptom of openness of ideas, acoustical imperative hallucinations. The ideas of general destruction and decomposition (Cotard's delusion, nihilistic delusion), eternal sinfulness (Agas-pher's syndrome) and hypochondriacal delusion may be completed by depression.

Expansive-(manical)-paranoid attacks may be manifested by expansive or manic affect, reduction of sleep duration and impetuous fun and are accompanied by ideas of greatness (expansive paraphrenia), ideas of hypnotic, psychoenergetic influence on ideas, behaviour, feelings and stimuli. At height of psychosis the oneiroid inclusions of space contents, magic delusion and change of rate of time course are possible. The outcome of psychosis may be accompanied by hypomania.

At mixed conditions fluctuations of affect from hypomaniac and manic up to depressive with ambivalent (Manichaean) delirium, which contents include struggle of forces of good and evil against the appropriate positive and negative acoustical hallucinations of inconsistent and mutually exclusive character are marked. The mixed conditions may also be characterized by alternation of depressive-paranoid and expansive-paranoid disorders as psychoses of happiness — fear.

The duration of psychosis is not less than 2 weeks. In intermission the signs of emotional-volitional defect are usually absent, but after acute psychosis for some time the affective or schizophrenic symptoms may be kept.

Patient I., 27 years old. For tlie first time she had fallen ill after labor. Her mood lowered, site began to think that she would not be taken from tlie maternity home, tlmt something terrible would Imp-pen to her child. Ideas about death occurred, slie could not sleep and refused meal. She had a feeling of guilt. After discharging from the maternity home her mood had suddenly changed, she decided that she was the following embodiment of empress Zoa. She demanded exclusive honors to be granted to her. She drew the genealogy proving such genetic connection. She considered lier child to be an actual successor of Emperor, did not allow anybody to approach him. The background of her mood was hypomanic with expansive shade. She tried to undertake a lot of work, but was quickly exhausted. After the therapy by neuroleptics in combination with lithium her condition was completely normalized.

However in two years she again became sad and letlmrgic. Slie cried and complained of unsuccessful life, Imd a feeling of guilt for bad looking after her son. The melanclioly was sometimes suddenly accompanied by alarm with motor anxiety. This condition suddenly clmnged into opposite. After reading the book on history of France she decided tlmt she was actually Josephine and a beloved of Napoleon. Having cut the curtains, she sewed a chiton to Iterselfin which site went for a walk. Her speecli was accelerated, with thematic slide. After the control of the condition periodic hypomanias occur in spring and autumn.

Diagnostics

The diagnostics is based on revealing the symptoms of schizophrenia and affective disorders, thus the duration of affective disortiers is longer than that of schizophrenia. The following variants are possible:

- the disease starts with the changed affect which accompanies the productive symptoms of schizophrenia and is finished together with them;
- the disease starts with the changed affect and symptoms of schizophrenia after which completion the changed affect continues to be fixed;
- the disease starts with the changed affect accompanying productive symptoms of schizophrenia after which completion the changed affect continues to be fixed.

Therapy

The therapy is divided into treatment of attack and preventive therapy of the subsequent attacks. At treatment of depressive-paranoid attack neuroleptics and tricyclic, tetracyclic antidepressants (Amitriptyline, Melipramin, Velbutrin, Maprolylin) are applied. At treatment of expansive-paranoid conditions neuroleptics (sometimes beta-blockers) and lithium or Carbamazepine are also used. Preventive therapy is based on application of supporting doses of lithium carbonate (Kontemnol, Lithinol, Lithobid) in doses up to 400-500 mg or Carbamazepine in doses up to 200 mg, sometimes — preparations of Valproic acid. At depressive-paranoid episodes ECT is also applied.

Affective Disorders

The division of affect and mood is caused by the fact that affect is understood as a bright expression of emotions which finds reflection in behaviour, and mood is considered as a sum of emotions for a definite time interval which are frequently, but not always, manifested in behaviour and may be successfully concealed. To the group of affective disorders, alongside with manias and depressions, recurrent, bipolar and chronic affective disorders, such syndromes as seasonal change of weight, evening drive for carbohydrates, premenstrual syndromes, part of teenage aggression, and also «the northern depressions occurring in

migrants for northern latitudes during polar winter refer. These syndromes have not been included in classification yet.

Aetiology and Pathogenesis

Emotion is manifested in behaviour (for example, in a facial expression, pose, gesture, features of social communications, thinking) and subjectively described in the structure of experience. When the control over it is lost, the emotion achieves a degree of affect and may result in autodestruction (suicide, self-damage) or homicide (aggression).

Affective disorders (bipolar, recurrent, dysthymia) have several parts of aetiology and pathogenesis.

The genetic reasons of the diseases may be an abnormal gene in the 11 chromosome, though there are theories of a genetic variety of affective disorders. It is supposed that dominant, recessive and polygenic forms of the disorders exist.

The biochemical reasons are disturbance of activity of neurotransmitter exchange (their number is reduced at depressions (serotonin) and increases at manias), and also catecholamine exchange — catecholamine deficiency is marked at depressions.

The neuroendocrinous reasons are expressed in disturbance of rhythm of functioning of hypothalamic-pituitary, limbic systems and epiphysis that influences the rhythm of emission of releasing hormones and melatonin. The processes are connected with photons of daylight. It indirectly influences the whole rhythm of organism, in particular, the rhythm of sleep-wakefulness, sexual activity, meal: the rhythms are regularly disturbed at affective disorders.

The theories of loss of social contacts include a cognitive and psychoanalytic interpretation. The cognitive interpretation is based on studying the fixation of depressive schemes of the type: bad mood — I cannot do anything — my energy decreases — I am useless — the mood lowers. This scheme is reflected on a personal and social level. The stylistics of depressive thinking assumes the absence of the plan of the future. Psychoanalytic concepts explain depression by regress to narcissism and formation of hatred to oneself; narcissistic elements are also found out in self-presentation and exhibitionism at manias.

The reason of affective disorders may be stresses: negative (distress) and positive (eustress). Series of stresses result in overstrain, and then — exhaustion as the last phase of the basic adaptative syndrome and development of depression in predisposed persons. The most significant stresses are death of a spouse, child, quarrels and loss of the economic status.

The basis of psychobiology of affective disorders is the disturbance of regulation in the spectrum of aggressive behaviour. The selective advantage of depression is stimulation of altruism in a group and family; by obvious advantage in a group and individual selection hypomania is also distinguished. This explains a stable number of susceptibility to affective disorders in population.

Disease Incidence

Susceptibility to affective disorders makes up 1%, the ratio of men and women is approximately equal. In children they are encountered seldom. The maximum incidence occurs at the age of 30-40.

Clinical Features

The basic disturbance consists in the change of affect or mood, level of motor activity, the activity of social functioning. Other symptoms, *I e.* change of thinking rate, psychosensorial disorders, utterances of self-accusation or overestimation are secondary in relation to these changes. The symptoms and signs are manifested as episodes (manic, depressive) of bipolar (biphase) and recurrent disorders, as well as in the form of chronic disorders of mood. Between psychoses intermissions

without psychopathological symptoms are marked. The affective disorders are almost always reflected in the somatic sphere (physiological defecation, weight, turgor of skin, etc.).

To the spectrum of affective disorders the following refer: seasonal change of weight (usually gaining weight in winter and its loss in summer within the limits of 10%); evening drive for carbohydrates, in particular for sweet before sleep; premenstrual syndromes expressed by lowering of mood and alarm before menses; and also «northern depression^ to which migrants are subject in the northern latitudes (it is more often marked during the polar night and is caused by lack of photons).

Diagnostics

The main signs are changes of affect or mood, other symptoms are deduced from these changes and are secondary.

Therapy

The therapy consists of treatment of depressions and manias proper, and also of preventive therapy. Depending on severity of depressions the therapy includes a wide spectrum of preparations: from Fluoxetin, Lerivon, Zoloft, Myanserin up to tricyclic antidepressants and ECT. The therapy of sleep deprivation and photon therapy are also applied. Therapy of manias is combined of treatment by increasing doses of lithium at their control in blood, application of neuroleptics or Carbamazepine, sometimes beta-blockers. The supporting treatment is carried out by lithium carbonate, Carbamazepine or Valproate natrium.

Hypomania

Clinical Features

Hypomania is interpreted as a mild degree of mania at which changes of mood and behaviour are prolonged and expressed, not accompanied by delusion and hallucinations. High spirits are manifested in the sphere of emotions as joyful insouciance, irritability, in the sphere of speech — as increased talkativeness with relieving and superficial judgments, increased sociability. In the sphere of behaviour the increase of appetite, sexuality, distractability, decrease of the need for sleep, separate acts violating the moral rules are marked. Ease of associations, increase of capacity for work and creative efficiency are subjectively felt. The number of social contacts and suc-cessfulness is objectively increased.

The partial symptoms of the latent mania may be monosymp-toms of the following type: disinhibition at children's and adolescent age, decrease of the need for sleep, episodes of increase of creative efficiency with experiences of inspiration, bulimia, increase of sexual drive (satyriasis and nymphomania).

> *Patient I. is 32 years old. By clwracter he is sociable and active. By profession he is an employee of a small firm. Last week he began to sleep less as he carried out a new project at work. He considered tliat at home all interfered with his work; therefore lie had to work at night. He was detained by militia at night because he was going roller skating at a high speed in the central streets, singing songs loudly. In some days he came into conflict with the personnel of a restaurant, thinking that he was served improperly cooked dish. He entered into controversy with everybody at work as he considered that «hi$ ideas were the most advanced».*

Diagnostics

The basic criteria are:

- high or irritable mood that is abnormal for the given individual and is kept at least 4 days.
- not less than 3 symptoms of the following should be present:
  - hyperactivity or physical anxiety;
  - increased garrulity;
  - difficulties in concentration of attention or distraction;
  - reduced need for sleep;
  - increase of sexual energy;
  - episodes of reckless or irresponsible behaviour;
  - raised sociability or familiarity.

Therapy

In therapy small and middle doses of lithium carbonate or other preparations of lithium (Lithosan, Lithobid), small doses of Carbamazepine are applied.

Mania

Clinical Features

The main difference from hypomania is that high spirits have an effect on change of norms of social functioning; it is manifested in inadequate acts; the speech rush and increase of activity are not controlled by the patient. Self-estimation increases, and separate ideas of own importance and greatness are expressed. A subjective sensation of easiness of associations occurs, distractability is increased, colours of the surrounding world are perceived brighter and contrast, more delicate differences of sounds are distinguished. The course of time is accelerated and the necessity for sleep is considerably reduced. Tolerance and need for alcohol increase, sexual energy and appetite are raised, there is a drive for travelling and adventures and thereof constant danger of infection with venereal disease and getting into histories with unpredictable consequences. Due to gallop of ideas a lot of plans occur which realization is only intended. The patient strives for bright and showy clothes, speaks loudly and later in a hoarse voice, he gets into debt and gives money to hardly familiar people. He easily falls in love and is sure of love of the whole world to him. Inviting a lot of casual people, he arranges parties running into debt.

Patient N., 25 years old, is a university student. Once in the morning, having woken up, site found out that the world had changed, had become bright and interesting. She spoke much, for an hour had

done the work planned for the ivhole month. At the university she attracted everybody's attention by bright clothes and though she had never used cosmetics before, she spent a lot of money on it, having borrowed it from girlfriends. She decided that site should marry a foreigner, arranged an active correspondence through Internet, simultaneously invited 5 men to tlie same cafe who sympathized with her. At parties she loudly sang songs, danced impetuously. Having borrowed money again, she bought flowers, which presented to her teacher. She made a declaration of love to everybody. She wrote verses at night and decided to start dissertation. Not having passed her examination session, she went to another city to visit her girlfriend whom she had not seen for 2 years. Having learnt that slie was married, she tried to tempt her husband, began to fight with her girlfriend. The condition proceeded for 2 weeks.

Diagnostics

The main symptoms of mania are the following:

- high, expansive, irritable or suspicious mood that is unusual to the given individual. Change of mood should be distinct and be kept during a week.

- there should be minimum three of the following symptoms (or four, if mood is only irritable):
  o increase of activity or physical anxiety; o the increased garrulity («a speech rush«); o acceleration of flow of ideas or a subjective sensation of «a gallop of ideas«; o decrease of the normal social control resulting in inadequate behaviour; o the reduced need for sleep; o the increased self-estimation or ideas of greatness; o distractability or constant changes of activity or plans; o precipitate or reckless behaviour which consequences are not realized by the patient, for example: binges, silly enterprise, reckless driving of a car; o appreciable increase of sexual energy or sexual unscrupu-lousness.
- absence of hallucinations or delirium, though there may be disorders of perception (for example, subjective hyperacu-sia — perception of colours as especially bright).

Therapy

In therapy «big» neuroleptics (Tizercine, Aminazine), lithium carbonate in increasing doses with the control of a lithium level in plasma, and also Carbamazepine are used.

Bipolar Affective Disorder

Clinical Features

This is a disorder qualified earlier as a manic-depressive psychosis. The disease is characterized by recurrent (not less than two) episodes at which the mood and level of motor activity are considerably disturbed: from manic hyperactivity up to depressive inhibition. Exogenous factors practically do not influence rhythmicity. The borders of episodes are defined by transition to episode of opposite or mixed polarity or to intermission (remission). Attacks have sensitivity to seasons, spring and autumn aggravation is more often, though individual rhythms are also probable. The duration of intermissions is from 6 months till 2-3 years. The duration of manic conditions is from one up to 4 months, during dynamics of the disease the duration of depressions is from one up to 6 months. Recurrences may be approximately of identical duration, but may also be extended at shortening of remissions. Depressions have a distinctly endogenous character: daily changes of mood, elements of vitality. At absence of therapy the attacks tend to spontaneous interruption, though they are more prolonged.

In the courese of disease social decrease is sometimes observed.

Patient A., aged 32, is a stomatologist by speciality. Tire first episode of mood change was marked in spring four years ago. He stopped going to work, experienced tlie feeling of melancholy, suicide ideas and ideas of self-accusation occurred, he refused meal. He took unpaid leave of absence and in two weeks got out of state of depression. Tlie next year in spring he noticed an opposite condition. He worked a lot and productively, slept a little, his energy increased, and tliere were a tot of plans, which he successfully realized. On top of this condition he demanded from his manager to allow him « night work» for realization of special researches, quarrelled with his colleagues, came to work in a state of intoxication in tlie morning. On out-patient visiting the psychiatrist he refused treatment and hospitalization. The manic episode proceeded two weeks and recurred precisely in a year.

That time the patient was persuaded to take preparations of lithium, and his condition was stabilized for a year. The last depressive episode occured again in spring, but assumed a prolong cliaracter. He gave up his work, became inactive. He suffered greatly from the feeling of inferiority and thought that everything was over. He complained of «a weight, sitting

heavy on his lieart», shortage of air on breathing in, absence of appetite, «tlie meal falls into etnptiness». On this background he began to use alcohol, but it only deepened the state of melancholy. He asked his friend to give him a gun «to go hunting, tried to attempt suicide. On examination there is a pose of submission, plica of Veragut, lie sighs sadly, touching his cliest. He considers tltat there is no need to treat him, it is better to let him die quietly. He speaks about dreams in xohicli he saw dead persons in underground corridors. He marks that looking at surrounding people, he gets an impression that they have already died. Time passes slowly as if eternity. By evening the condition slightly improves.*

Diagnostics

The diagnostics is based on revealing the repeated episodes of changes of mood and level of motor activity in below-mentioned clinical variants. At diagnostics the directly observed episode of affective disorder is marked, for example: hypomaniac, manic without or with psychotic disorders, moderate or mild depression, severe depression with psychosis or without it. If disorders are not marked, the diagnosis of remission is stated, which is frequently connected with preventive therapy.

Therapy

The treatment of depressions, manias and preventive therapy of attacks are distinguished. The features of therapy are defined by depth of affective disturbances and presence of other productive symptoms. At depressive episodes more often tricyclic antidepressants, ECT, treatment with deprivation of sleep, disinhibition by nitrous oxide are used. At manic episodes the combinations of lithium carbonate and neuroleptics are applied. As supporting therapy Carbamazepine, sodium Valproat or lithium carbonate are administered.

A Depressive Episode

Risk Factors

Risk factors of development of depression are the age of 20-40 years, decrease of a social class, divorce in men, a family history of suicides, loss of relatives after 11 years, personal qualities with traits of anxiety, diligence and conscientiousness, stress events, homosexuality, problems of sexual satisfaction, the postnatal period, especially in single women. In pathogenesis of depressions alongside with genetic factors determining the level of neurotransmitter systems, the cultivating in family of feebleness during stress, forming the basis for depressive thinking, loss of social contacts are of importance.

Clinical Features

The symptoms and signs are formed of emotional, cognitive and somatic disturbances; among additional symptoms there are also secondary ideas of self-accusation, depressive depersonalization and derealization. Depression is manifested in the lowering of mood, loss of interests and pleasures, decrease of vigour, and as a result — increased fatigability and reduction of activity.

A depressive episode proceeds not less than 2 weeks.

Patients mark the reduction of ability to concentration and attention that is subjectively perceived as difficulty of memorizing and decrease of success in training. It is especially appreciable at an adolescent and youthful age, as well as in persons engaged in intellectual work. Physical activity is also reduced to inhibition (down to stupor) that may be perceived as laziness. In children and teenagers the depression may be accompanied by aggression and conflictness, which

mask peculiar hatred to themselves. Conditionally all depressions may be divided into syndromes with the component of alarm and without it.

Rhythmic of changes of mood is characterized by typical improvement of health state by the evening. Self-estimation and self-confidence are reduced that looks like specific neophobia. The same sensations distance the patient from associates and strengthen the feeling of his inferiority. At a long course of depression at the age over 50 it results in deprivation and clinical picture reminding of dementia. The ideas of guilt and self-abasement occur; the future is seen in gloomy and pessimistic shades. All this results in occurrence of ideas and actions connected with auto-aggression (self-damage, suicide). The rhythm of sleep — wakefulness is broken, sleeplessness or absence of feeling of sleep is observed, gloomy dreams prevail. In the mornings the patient hardly gets up. Appetite is reduced, sometimes the patient prefers carbohydrate food to protein one, appetite may be restored in the evening. The perception of time which seems indefinitely long and burdensome varies. The patient ceases to pay attention to himself, he may have numerous hypochondriac and ce-nestopathic experiences; depressive depersonalization with negative representation about own body and own self appears. Depressive derealization is expressed in perception of the world in cold and grey colours. Speech is usually delayed, with talks about own problems and the past. Concentration of attention is complicated, and formulation of ideas is delayed.

On examination the patients frequently look out of the window or at a source of light, gesticulation is oriented in the direction of own body, hands are pressed to the chest, at anxious depression — to the throat, there is a pose of submission, in a facial expression there is plica of Veragut, lowered comers of the mouth. At alarm there is accelerated gesture manipulations with objects. The voice is low, quiet, with big pauses between words and low directivity.

The endogenous affective component is expressed in the presence of rhythmicity: semiology amplifies in the morning and is compensated in the evening; in availability of criticism and subjective uneasy feeling of own condition, connection of uneasiness with season, positive reaction to tricyclic antidepressants.

The somatic syndrome represents a complex of symptoms indirectly indicating a depressive episode. For its designation the fifth mark is used; however, the presence of this syndrome is not specified for a severe depressive episode because at this variant it is always revealed.

For the definition of the somatic syndrome four of the following symptoms should be present.

- Reduction of interests and/or decrease of pleasure from activity, usually pleasant for the patient, for example: earlier pleasant creative activity now seems senseless.
- Absence of reaction to events and/or activity, which in norm cause it, for example: if earlier the woman was upset by her husband's later return from work, now she is indifferent to it.
- Awakening in the morning is two or more hours earlier than usually; after such awakening the patient usually continues to stay in bed.
- Depression is severer in the mornings, by the evening the condition is improved.
- Objective evidences of marked psychomotor inhibition or agitation (marked or described by other persons): patients prefer loneliness or rush about in anxiety, frequently groan.
- Appreciable decrease of appetite, sometimes selectivity in preference of food with accent on sweet and carbohydrate food happens.
- Loss of weight (five or more percent of body weight in the previous month).
- Appreciable reduction of libido.

Nevertheless in traditional diagnostics to the somatic syndrome many symptoms may refer, such as: expansion of pupils, tachycardia, constipations, decrease of skin turgor and increased fragility of nails and hair, accelerated involutional changes (the patient seems older than his age); and also somatoform symptoms, such as: psychogenic dyspnea, syndrome of restless legs, a derma-tological morbid depression, cordial and pseudorheumatic symptoms, psychogenic dysuria, somatoform disorders of gastrointestinal tract. Besides, at depressions weight is sometimes not decreased, but increased in connection with drive for carbohydrates; libido may also not decrease but increase, as the sexual satisfaction reduces the level of alarm. Among other somatic symptoms indefinite headaches, amenorrhea and dysmenorrhea, pains in the chest and especially specific sensation of «a weight sitting heavy on his heart» are characteristic.

Diagnostics

The most important signs are:

- decrease of ability to concentration and attention;
- decrease of self-estimation and self-confidence;
- ideas of guilt and self-abasement;
- gloomy and pessimistic vision of the future;
- ideas or actions resulting in self-damage or suicide;
- disturbed sleep;
- reduced appetite.

In treatment antidepressants are applied: mono-, bi-, three and tetracyclic ones, inhibitors of MAO, inhibitors of recapture of serotonin, hormones of thyroid gland, monolateral ECT of a non-dominant hemisphere, deprivation of sleep. To old methods the treatment with increasing euphoric doses of Novocain, inhalations of nitrous oxide refer. Phototherapy by luminescent lamps, cognitive psychotherapy and group psychotherapy are also applied.

Recurrent Depressive Disorder

Clinical Features

There are recurrent depressive episodes (mild, moderate or severe). The period between attacks is minimum 2 months, during which no significant affective symptoms are observed. The duration of episodes is 3-12 months. It is more often encountered in women. Usually to advanced age the lengthening of attacks is marked. The individual or seasonal rhythm is rather distinct. The structure and typology of attacks correspond to endogenous depressions. Additional stresses may change a degree of severity of depression. The given diagnosis is also made in this case. Therapy which reduces the risk of recurrent episodes is applied.

Diagnostics

There are recurrent depressive episodes with periods between attacks of minimum 2 months during which no affective symptoms are observed. At diagnostics it is usually marked, what type of episode is diagnosed at present — mild, moderate or severe, with psychotic symptoms or without them, or whether remission is marked.

Therapy

At treatment the therapy of exacerbations (antidepressants, ECT, deprivation of sleep, benzodiazepines and neuroleptics), psychotherapy (cognitive and group therapy) and supporting therapy (Lithium, Carbamazepine or Valproat of sodium) are taken into account.

Dysthymia

Aetiology

Types of personalities, in whom dysthymia occurs, would be correctly name constitutional-depressive. These features occur in them in childhood and adolescence as a reaction to any difficulty, and further — endogenously.

Clinical Features

Patients are whining, thoughtful and not very sociable, pessimistic. Under the influence of insignificant stresses in postpuberal period, during not less than two years, they have periods of constant or periodic depressive mood. The intermediate periods of normal mood seldom last longer than several weeks, the whole mood of person is coloured by subdepression. However, the level of depression **is** lower than at a mild recurrent disorder.

It is possible to reveal the following symptoms of subdepression:

- decrease of energy or activity;
- disturbance of the rhythm of sleep and sleeplessness;
- decrease of self-confidence or the feeling of inferiority;
- difficulties in concentration of attention and hence subjectively perceived defective memory;
- frequent tearfulness and hypersensitivity;
- decrease of interest or pleasure in sex and other earlier pleasant and instinctive forms of activity;
- feeling of hopelessness or despair in connection with awareness of feebleness;
- inability to manage the routine duties of daily life;
- a pessimistic attitude to the future and a negative estimation of the past;
- social isolation;
- decrease of talkativeness and secondary deprivation. Diagnostics

The diagnosis requires not less than two years of constant or recurrent depressive mood, the periods of normal mood seldom last longer **them** several weeks.

The criteria do not correspond to a mild depressive episode, as suicide ideas are absent.

During the periods of depression not less than three of the following symptoms should be present:

- decrease of energy or activity;
- sleeplessness;
- decrease of self-confidence or the feeling of inferiority;
- difficulties in concentration of attention;
- frequent tearfulness;
- decrease of interest or pleasure in sex and other pleasant kinds of activity;
- feeling of hopelessness or despair;
- inability to manage the routine duties of daily life;
- a pessimistic altitude to the future and a negative estimation of the past;
- social isolation;
- reduction of necessity for communication. Therapy

At low mood the following is indicated: Prozak, treatment by deprivation of sleep and enotherapy. Sometimes the effect is achieved by 2-3 sessions of nitrous oxide, amital-caffeine disinhibi-tion and intravenous injection of Novocain, and also therapy with nootropics.

Neuroses and Somatoformic Disorders

This group of disorders is connected mainly with the psychological reasons and external factors, thus it is necessary to take into account a relative character of psychic trauma.

Causes of psychic trauma are: information about family or love troubles, loss of relatives, failure of hopes, troubles at work, forthcoming punishment for offence, threat to life, health or well-being. The irritant may be unitary superstrong — in this case the question is about acute mental trauma or repeatedly acting weak irritant — in this case they speak about a chronic psychic trauma or situation. The significance of the information for the given individual defines a degree of its pathogenicity. The diseases weakening the nervous system are the following: craniocerebral traumas, infections, intoxications, diseases of internal organs and endocrine glands, as well as insufficient sleep for a long time, overfatigue, malnutrition and a long emotional strain — all these factors predispose to occurrence of psychogenic diseases.

Aetiology and Pathogenesis

Theories of aetiology and pathogenesis of neuroses depend on interpretation of the received data by a concrete clinical school; there are physiological, behavioural, ethological and evolutionary, psychoanalytic, informational and psychological interpretations.

Physiological explanations of neurosis are connected with 1. P. Pavlov's school. According to it, neurosis results from collisions of inconsistent stimuli, which create the situation of uncertainty of the reflex answer. The clinical features, thus, is the result of coniflict between impulses. Somatoform disorders are explained by activization of the nervous-reflective communications, which include somatization of neurosis.

Behavioural explanations assume interpretation of neurosis as fixation of a chain of new, pathological reflex answers as a result of wrong training of reacting, that is wrong feelings and wrong behaviour arc the result of learning.

Ethological and evolutionary explanations connect similar conditions in animals and mem on the basis of congenital predisposition of the nervous system to react in a strictly definite way to a concrete set of stimuli of the environment. The occurrence of non-biological stimuli results in the situation of uncertainty in a choice of type of reaction, which is realized in neurosis. Thus, neurosis is a special form of adaptation and, strictly speaking, it does not refer to pathology.

Psychoanalytic and psychological schools are inclined to explain neurosis by fixing on a concrete mechanism of psychological protection, which works depending on experience of early childhood generated in the stages of psychosexuality. At neurosis there is the conversion of libido energy to internal organ or regression to early stages of psychosexual development. Symbolism of neurosis is symbolism of the latent unconscious desires. Psychoanalytic interpretation also expands neurosis outside the borders of norm, and, from the point of view of psychoanalysis, all people are neurotics, as all of them were or are (or will be) in the situation of overcoming obstacles (frustration), which results in action of mechanisms of protection, part of which are fixed.

Informational theories connect neurosis with excess or lack of information, and also with distortion of information.

According to biochemical theories neurotization is the result of excess or partial deficiency of neuromediators or hormones, which level is defined by the genetic norm of reactions, that is by limits allowable for the given individual in connection with acute or chronic stress. Hence, there are neuroses connected with exhaustion (neurasthenia) and with the period of hyperstimulation (anxious-phobic disorders).

The researches in the field of neurophysiology have shown that at some neuroses the organic basis may be found out, which is manifested as special paroxysm, for example, alarms, fears.

Existential theories interpret neurosis as the loss of plan and sense of existence that results in the condition of abandonment and experience of flight from freedom of choice.

In various theories there is distinguishability of the concept of neurosis as reaction and a neurotic as a special person, having come a

way of neurotic development, of whom the reaction to stress in a neurotic way is characteristic.

Clinical Features

The clinical picture includes first of all emotional disturbances, mild cognitive disorders which define a special style of neurotic fixation on experience or neurotic thinking, disorders of thinking on contents (ob-session), disturbances of behaviour (compulsion) and dissociative motor disorders, somatic experiences. All specified disorders are more often a problem for the patient himself, but they almost do not influence his social functioning, that is, the patient is quite acceptable for the social environment, causes in the surrounding people an altruistic desire of trusteeship and rarely — irritation The clinical features of neurosis include the phenomena of somatic, personal, cerebral, hormonal spheres, changes of com-municability. In the somatic sphere it is almost constantly possible to find out uncertain complaints, paresthesias and cenestopathies, weakness. In the personal sphere the attitude to oneself and own prospects varies. In the cerebral sphere the fixations on neurotic style of thinking are marked. In the hormonal sphere the change of desires is marked, usually their decrease. All these result in disturbances of communicability and different notion about own place among associates.

Anxious-Phobic Disorders

Aetiology and Pathogenesis

The biological reason is the increase of a catecholamine level, hyperstimulation of beta-adrenergic receptors and blockade of receptors, bound by benzodiazepines and regulating metabolism of gamma-aminobutyric acid (GABA), and also the increase of emission of serotonin and lactate and reduction of a calcium level in whey. At anxious disorders the tolerance of physical exertion is reduced, the patient reacts to it by increase of emission of dairy acid. The disorders have also a genetic basis.

From the psychoanalytical point of view, phobia is a protective mechanism against comprehension of taboo representations, for example: aggression directed at parents, incest representations. The object of phobia frequently symbolically indicates a real object or situation in which traumatic representations occurred. The initial alarm connected with separation of the child from the parents in early childhood further is reproduced in neurosis even in case of expected separation from the object of attachment. The conditions occur on a special psychasthenic constitutional basis, which is characterized by suspiciousness, anxiety, emotionality, shyness, and modesty. The beginning and fixation of disorder occur as a conditioned reflex. At first fear arises in the presence of a pathogenic situation, then — at recollection, and at last, it penetrates into the whole thinking, turning into special persistence.

Disease Incidence

Single attacks of panic are experienced by up to 10 % of population. Incidence of repeated episodes of the anxious-phobic disorders is up to 1% of population. A ratio of women and men is 2:1.

Clinical Features

It is manifested by concrete obsessive fear and alarm arising in a (ertain situation, accompanied by vegetative dysfunction. As a result these situations or objects are avoided or experienced with the feeling of fear. Ancient authors named this group of diseases «the garden of Greek roots» with the particle «phobia», for example: claustrophobia, misophobia, agoraphobia. The behaviour of patients has the appropriate character. Fear at phobias is conditional, that is, occurs r»nly under certain conditions and outside these conditions it does not occur.

> *Patient* N., *19 years old, complains of states of fear and alarm while going by bus. As she lives far from the city, it makes a serious problem. Wlien she*

gets into the bus, irrespective oftlie number ofpassengers, in some minutes she lias shiver, fear, hyperhidrosis, slight nausea, and she demands to open the door for her. The fear does not occur in trolley buses, trains and other means of transport. For the first time the fear appeared two years ago when she was going to pass final examinations at school. The bus which N. was in, knocked a pedestrian down. Wlien she got off the bus, she saw the dead, something in his appearance reminded of her father, she got terribly frightened about him and herself. Site never arrived at the examination. After psychotherapy with accent on methods ofhyp-notization her condition was normalized.

Diagnostics

This includes the revealing and description by the patient of alarm, fear accompanied by a vegetative dysfunction.

Therapy

The treatment is medicamentous: tranquilizers (Mebicar, Phenazepamum), nootropics, antidepressants (Imipramin). Psychotherapy includes: psychoanalysis, behavioural therapy — desensitization, hypnosis, logotherapy of V. Frankl (paradoxical intention), neurolinguistic programming.

Agoraphobia

Agora means a market square and *phobia* — fear. *Agoraphobia* is fear of empty spaces arising at passing through wide, open places, areas or lonely streets, and also fear of people met in these areas.

Aetiology and Pathogenesis

It occurs psychogenically in people with advanced enough imagination, more often in women. Manifestations may be preceded by depressive episodes. The fear has features of obsession; on outcome of this condition the fear to get frightened (phobophobia) is frequently marked. From the analytical point of view the fear is connected with anxiety of aggression or accusation.

Clinical Features

The fear of open spaces, crowd and impossibility to return to a safe place, fear to lose consciousness in a crowded place, fear of absence of immediate access to exit are characteristic. Having begun as fear of open spaces, semiology is enriched by fear of crowd, impossibility to return at once to a safe place (home), fear to travel alone in transport. As a result patients disadapt and become confined to their house. The absence of immediate access to exit sharply increases fear. ***[he*** course is wavy, tends to synchronization. It is accompanied by a vegetative reaction. It may result in problems of interrelations with associates because in patient the avoiding spreads to people, who are associated with open space in him.

In the presence of attempt to leave sharply the place of occurrence of fear, the diagnosis of agoraphobia with panic disorder is made.

Patient O., 35 years old, is a manager. She complains of fear to leave the house, the fear is amplified at crossing streets, visiting the park, through which she goes to work. Living not far from work, she is compelled to call a taxi. WIrile going to other places, for example, to the shop, fear is absent. As a result of generalization of fear she ceased to go to work at all. During periods of fear there is shiver in legs, confusion, sensation of dizziness, «all blurs before eyes», there is fear of death. For the first time fear appeared a year ago, after the death of her husband, she experienced the feeling of fault as during last years slie hid her secret illicit relations from him. As a result of psychoanalytic sessions she realized the fear as anxiety that she would be seen in a place of appointments with her beloved, who used to meet her on his way from work in that very park. She con-nected this fear with condemnation of Iter as «a possible murderer of the husband».

Diagnostics

The alarm or fear should be limited by two of the following situations: a) a crowd or a public place, movement outside the house, b) travelling in loneliness. Phobic situations are avoided, and vegetative symptoms are the initial expression of alarm.

Therapy

Desensitization and other methods of behavioural therapy, hypnotherapy, autotraining, a meditative training and psychoanalysis are used, as well as tricycle antidepressants, inhibitors of MAO, Alprazolam, and Fluoxetine.

Social Phobias

Aetiology and Pathogenesis

In premorbid period there is a strict evaluative education in childhood, absence of encouragement on the part of parents, forming a low level of self-estimation; aspiration in any way to arouse interest and win recognition of associates. The onset is more often at an adolescent age because of fear to answer at a blackboard or at any other evaluative situation fixed reflexly.

Disease Incidence

The disorder is more often encountered in teenagers. **Clinical**

Features

These include the fear to be the focus of attention of associates: the fear of public speeches is combined with the reduced self-estimation and fear of criticism. Social phobias may have an isolated character and consist in specific character of fear — at public speeches, having a meal, meetings with a person of opposite sex. If phobic experiences spread to all situations outside a family circle, we speak about a diffusive character of social phobia.

Patients complain of blushing, feeling of a lump in the throat, palpitation, dryness in the mouth, weakness in the legs, impossibility to concentrate on action. The formed avoidance of critical situations results in partial or complete social isolation. It is sometimes combined with agoraphobia.

Patient A. (54 years old) was married twice and divorced, now lives alone. He considers the reason of divorce to be his quarrelsome character. In the rank of lieutenant colonel he was demobilized from tlie army and got an employment of manager of tlie personnel department. He began to notice difficulties of communication with women, who addressed him with different questions. He was unrestrained, at a repeated question jumped up, shouted. He himself was afraid of sudi reaction, already at the sight of women at work he experienced dryness in tlie mouth could not men work productively. The pliobia did twt concern tlie women whom he met in tlie street, but hardly they asked him about something, lie got confused. Tliat is wiry in tlie shops he tried to make some purdiase quickly, not looking into tlie eyes of the slwp-assistant.

As a result of psychoanalytical xoork he recollected a situation, which liad taken place with him 14 years before. Togetlierwith his friend they walked in a wood, had quarrelled, then began to fight. A. hit the friend in tlie abdomen. Vie latter fell down, and A. got frightened tliat ***lie*** *liad killed him. Having rushed home,* ***lie*** *saw his friend's mother wlw began to accuse him of murder. Meanwhile it appeared that tlie friend had simulated death and was already at home. This situation* ***liad*** *fixed the basic mistrust to women and their perception as aggressive. During his service in the atwy contacts with women were minimal; but he having returned Iiome, a stereotyped recurrence of tlie superseded traumatic situation occurred which was manifested in gynopltobia.*

Diagnostics

The alarm is limited to social situations (which are avoided) and is the initial one.

Therapy

Psychoanalysis, psychodrama, gestalt-therapy, and group psychotherapy are applied.

The Specific (Isolated) Phobias

Aetiology

Fear is associated with a concrete object, which caused real danger in the past. It is quite probable that behind the symbolism of object of fear in children someone of close relatives, for example, father or mother stands.

Disease Incidence

These develop in childhood or adolescence.

Clinical Features

In clinical features phobias are marked, which are limited to strictly certain situations and not occurring out of them. These include: fear of animals (more often dogs), height, close spaces, examinations, thunder, darkness, flights by plane, urination and defecation in public convenience, eating certain food, treatment at the dentist, sight of blood or injuries, fear to fall ill with the certain disease, fear of driving a car. Objects of fear sometimes occur in dreams, they are avoided. At the moment of fear a vegetative reaction is also marked.

> *Patient E., aged 24, is a student of the state institute. He lives together with his motlier. The first complaints appeared tioo years ago, after divorce of parents. He noticed that before leaving home lie liad to stay in a toilet far some time as «something is still left after defecation». Further the fear zoos generalized. He carefully investigates the route up to tlie place of study, whether there are toilets on his way in case of occurrence of sudden desires, zoliether these toilets are far from the route of movement of his bus, zvliether «tliey are well equipped». If his classes are prolonged, he feels fear «to disgrace himself and let gases out (pec-tophobia). He also noticed tliat when the motlier appears to be at liome, he does not need to repeat defecation. Problems arose, when lie liad to go to his practice by electric train in which there was no toilet. For prevention of possible fecal incontinence he was compelled to put on nappies, and tlien to remove them imperceptibly. Tlie only thing tliat iielped him is tlie change of rhythm of food intake: he liad to eat a lot in tlie morning, and not to eat at all in the second half of tlie day. In this case defecation occurred late at night, and in the morning lie was quiet. The pliobia was not connected with urination, zvhich he might control quite well. The fear is connected with children's memories about fatlier's punishment for his long staying in a toilet and even reading there. Tliis punishment in the childhood, as lie remembered, became a source of the first conflicts between the father and mother.*

Diagnostics

The fear of concrete object or action.

Therapy

It includes a behavioural therapy, in particular desensitization, psychodrama, hypnosis, autotraining, psychoanalysis, and also therapy by tranquilizers.

Obsessive-Compulsive Disorder

These are obsessional ideas and (or) actions. In French (P. Janet) and Russian literature it is psychasthenia, in German — anancasm, in Anglo-Saxon — an obsessive-compulsive disorder.

Aetiology

Biological factors, in particular trauma in labor, are of importance. In a number of patients changes of EEG are marked. The risk of development of obsessive-compulsive disorders in close relatives makes up 3-7% as compared to 0.5% at other kinds of disturbing disorders. Great importance is attached to psychogenic factors, as well as to disturbance of normal growth and development.

Psychoanalysis considers rituals and connected with them compulsion and obsession with fixation on anal-sadistic phase or regress to this phase. The stereotyped return to the former idea or action may be the means of tranquilization at a high level of alarm or concealment of aggression directed at somebody of the nearest environment.

Clinical Features

There are complaints of recurrent burdensome stereotyped, obsessive ideas, images or attractions recognized as senseless, which in a stereotyped form again and again occur in patient and cause unsuccessful attempt of resistance. Compulsive actions or rituals represent repeated again and again stereotyped acts, which sense consists in prevention of any objectively improbable events. Obsession and compulsion are experienced as alien, absurd and irrational. The patient suffers from them and resists them. Most frequently there is obsessive fear of pollution (misophobia), which is accompanied by many-hour washing; obsessive doubts accompanied by compulsive checks (whether the door is closed, whether the gas is switched off), and obsessive sluggishness, at which obsession and compulsion are combined and the patient does routine work very slowly.

> *Patient E.,* 26 *years old. After graduating from the medical university he began to work as a therapist. By character he was alioays hypochondriac and listened to his feelings. Once, buying a cigarette in a booth and being a tall person, he bent down in front of the roof, covering the window. He imagined, what might Iwve happened, if he liad not bent down in time, as the edge of the roof was very sharp. Further, all the time when he saw booths, he had obsessive ideas «about cutting off part» of the head. Tlien strange obsessive fears began to arouse that he could lose part of his body (more often a hand or leg), which is passed by a car. These fears occurred when he, passing the street carelessly, slightly toiiched the braking car by the leg. Besides, he was afraid that among his patients there might be a patient with AIDS which he cannot diagnose. Thoughts about the possibility of infection again and again returned to him. For each of the fear< he had a ritual: when lie approached a booth, he always put on a strange hat; when he went along the road, he exposed his briefcase from the side of the road; when he worked with patients, he closed his face with a mask, explaining it by cold. Obsessions were replaced one by another. At last, looking at his hands, he paid attention to strange vesicles and began to scratch them; these compulsions were fixed at him and resulted in occurrence of numerous abrasions on the hands, which he with the same persistence began to treat at dermatologist.*

Acute Reaction to Stress

Aetiology

It is strong traumatic experience (natural disaster, accident, rape, loss of relatives). At the moment of stress the fixation on such mechanisms of protection, as extreme identification, replacement occurs. As a result changes of consciousness, disturbance of perception and behaviour are possible.

Clinical Features

Obnubilation with narrowing of consciousness, decrease of attention, inadequate reaction to external stimuli, disorientation are characteristic. Further escape from situation down to dissociative stupor or agitation and hyperactivity (reaction of flight or fugue) take place. Usually it passes within hours or days. The risk of development of disease

is increased at physical exhaustion or at elderly people. After loss of relatives as a result of earthquakes the conviction that victims are actually alive, flight from the place of tragedy, behaviour with traits of infantilism (puerilism), stiffening at the place of tragedy and refusal to leave it are marked. Similar reactions occur at sudden death of a relative.

> *Patient £., 32 years old. During the flood of the river she walked with a 6-year-old son near the bank, suddenly in her sight he fell into the river and sank. After she had seen the body of the son, mutism occurred, she convulsively pressed hands to the breast. With unblinking gaze, she looked into space and pronounced his name in the stereotyped way. She assured that he had gone away and would return soon, spoke with him. She ran along tlie bank and called him, muttered something, refused to leave the bank after the body of the son had already been taken away. On the first day of hospitalization she refused to lie down and said that her son would just return, he liad left for a moment.*

Therapy

Tranquilizers, for example Diazepam in a dose up to 20 mg, antidepressants, therapy by sleep, gestalt-therapy, group and family therapy are applied.

Posttraumatic Stressful Disorder

Aetiology

It develops in persons who have suffered emotional or physical stress (operations, accidents, attacks of gangsters, rape, fire in the house).

Clinical Features

The experience of trauma occurs again and again during dream, in ideas and in a sleepless state, but in imagination the picture of trauma may be objective and alive. The emotional deafness to all other experiences in life, including relations with other people, is characteristic; the accompanying symptoms are in the form of vegetative lability, depression and cognitive disturbances. No pleasure is derived from life and its manifestations (anhedonia).

Children and old people suffer the stress more severely. The duration of the disorder is over 1 month.

Therapy

This includes antidepressants, soporifics, and antipsychotics, if necessary. Group and family psychotherapy is applied.

Dissociative (Conversion) Disorders

These are disorders, which are expressed by loss of conscious control over memory and sensations, on the one hand, and over control of body movements, on the other hand. Its old name is conversion hysteria. The origin is psychogenic, there is close time connection with traumatic events, insoluble and intolerable events or broken interrelations. The increase of incidence of the disorder is typical of the period of wars and conflicts or natural disasters. They are more typical of women than of men, and of youthful and adolescent age than of average one.

Aetiology

In the origin of the disorder the biological, psychological and social factors are of importance:

- biological factors include heredity significance and constitutional features of personality; the suffered diseases are of importance; more often the disorders fall to the crisis periods — the prepubertal and pubertal age, and also the climacteric period;
- psychological factors include: the demonstrative features in premorbid period, mental traumas and deprivations suffered in childhood, the increased suggestibility and sexual disharmonies of a married couple. Besides, the psychology of dissociative

disorders includes the mechanism of conditional pleasantry and desirability of the symptom: the person receives any profit due to the disease. Thus, the symptom promotes, for example, keeping the object of love nearby;

- the dissociated education including inconsistent demands of the mother and father to the child, as well as aspiration of the person to the rent aim refer to the social factors.

Dissociative Amnesia

Aetiology

This includes emotional traumas, psychological conflicts. The destruction of consciousness by the patient is a way of struggle against the emotional conflict or external stress.

Clinical Features

The loss of memory (partial) for recent important events of a traumatic character, accompanied by confusion, is manifested in the following forms:

- localized amnesia — loss of memory for events happened several hours to several days before;
- generalized amnesia — loss of memory for the whole period of the disease;
- selective amnesia — loss of memory for some events of the disease;
- persistent amnesia — forgetting each consecutive event. *Patient N. (34 years) addressed a police station in connection with the fact that he did not remember how appeared in the citif. N. urns*

disoriented in time, named the dates one month before real. Restoration of ez>ents oftlw past allowed to find out that he had suffered a number of mental traumas during a short time interval - from loss of close relatives to economic crash. He had taken the documents, necessary things and left his home. He managed to recall some events of the previous month, but only fragmentarily, for example, how he got on the train, stayed at relatives in the nearest city. On neurological examination and EEG the patlwlogy was not revealed. The periods of amnesia did not recur. In 2 weeks memory recovery was practically absolute.

Therapy

This consists of psychoanalysis, hypnotherapy, narcopsycho-therapy with application of amytal-caffeine disinhibition.

Dissociative Stupor

Aetiology

It is psychogenic, resulting in a shock reaction of stupor.

Clinical Features

Stupor, which has no physical reasons, is psychogenously caused: decrease or absence of any movements and reactions to external stimuli (light, noise, touch), absence of speech. The patient is in the condition of «neither sleep, nor wakefulness".

Therapy

Psychoanalysis, amytal-caffeine disinhibition, psychotherapy directed at reacting are applied.

Dissociative Disorders of Motility

Aetiology

This is the following: psychological stress, avoidance of conflict by flight to the disease.

Clinical Features

Full or partial paralysis of extremities (mono-, hemi- and pair-pareses and plegia), ataxia, astasia-abasia, apraxia, akynesia, aphonia, dysartria, blepharospasm may take place. The estimation of a mental condition of the patient assumes that the decrease of efficiency following the loss of functions helps him to avoid the unpleasant conflict or indirectly express his dependence or indignation. The essential factor is the behaviour directed at attraction of attention.

Patient P., aged 16, after observing the conflict of parents stated the impossibility to completely open the eyes and pressure in the orbital area which again resulted in raised lacrimation for the second time. At the moment of conflict he, trying to protect the mother, pushed the father, then his hand became numb, however numbness had quickly disappeared. Wliile wearing glasses, bleplmrospasm disappeared and increased, when lie approached something to the eyes. He is compelled to wear dark glasses constantly, became the object of steadfast trusteeship of the parents.

Therapy

Psychoanalysis, hypnosis, amytal-caffeine disinhibition, behavioural therapy are applied.

Dissociative Spasms

Aetiology

Usually it is a situational conditionality.

Clinical Features

Their duration is from minutes to hours. The demonstrative character emphasizes that they occur in the presence of extraneous observers and disappear at the loss of interest in the patient by them. More often the abortive forms are encountered: faints, tears or laughter, tremor of the whole body, with the external signs of loss of consciousness without its actual loss. At children's age they occur as the reaction of protest against adults' refusal to fulfil the demand of the child.

Therapy

Emotional-stressful psychotherapy, psychoanalysis are used.

Somatoform Disorders

The recurrence of physical symptoms alongside with constant demands of the patient to make medical examination contrary to the confirmed negative results and assurances of doctors about absence of physical basis for semiology takes place. Despite the fact that occurrence and preservation of semiology is closely connected with unpleasant life events, difficulties or conflicts, the patient resists the attempts of discussion of opportunity of its psychological conditionally. The hysterical behaviour directed at attraction of attention is typical, especially in patients who are indignant about impossibility to convince doctors of mainly physical nature of their disease and in necessity of continuation of further examinations and inspections. Some patients are capable to convince doctors of availability of a concrete pathology, being themselves convinced of it (syndrome of Munchausen). Some researchers are convinced that somatoform symptoms are actually manifestations of the latent depression, and hence they are treated by antidepressants; others consider that they are special conversion, /'. *e.* dissociative, disorders and consequently should be treated by psychotherapeutic methods. However, it is necessary to remember that these disorders may be the first signs of true somatic diseases, and it assumes steadfast attention to somatic examination of the given patients.

Somatization Disorder

Aetiology

Social, genetic, cultural and ethnic factors are of importance. In particular, imitation of parents, bad conditions of life, features of attention and cognitive disturbances have significance. Probably, a certain role is played by disturbances of perception of somatic stimuli that is interpreted as the presence of certain pathology. Incidence makes up about 0. 4 %, more often it is marked in women.

Clinical Features

The plural, recurrent, varying somatic symptoms take place during a number of years, previous to the address of the patient to the psychiatrist. In connection with the given complaints patients address therapists, neuropathologists and other specialists. Most frequently gastrointestinal sensations occur (pain, eructation, regurgitation, vomiting, nausea), skin sensations (itch, burning, pricking, numbness, morbidity), sexual and menstruell complaints. The specified complaints are described in the dramatic, exaggerated manner, and colorful language. Features of the patients' personality can be characterized as dependent, egocentric, striving for recognition and praise, with propensity to manipulate by associates. The duration of the disorder is not less than two years; it is accompanied by disturbance of family and social functioning. The beginning is usually at the age of over 30.

Variants of disorder are: non-differentiated somatoform disorder, which the atypical character of complaints is characteristic of, their small number, absence of disturbance of social and family functioning. Most frequently hypochondriac disorder is marked. In its aetiology the genetic, cultural and social factors, as well as narcissistic type of personality are of importance. Constant concern about the possibility to fall ill with one and/or more severe and progressing somatic disorders is peculiar to it. Interpretation of ordinary sensations is presented as something abnormal and unpleasant. Ideogenous morbid depression presents false, disturbing representations about health. At sensogenous morbid depressions the initial disorders are sensory which further undergo this or that processing. A morbid depression of children is excessive fear for health of parents, a morbid depression of parents is, accordingly, vice versa. A morbid depression of health is an excessive attention to own health. Long time patients with a morbid depression are observed by non-psychiatrists and manipulate by family and social structures. The hypochondriac disorder also includes: non-delirious dysmorphophobia, hypochondriac neurosis, nosophobia, *i. e.* fear to catch a concrete disease.

> *Patient* O., *50 years old, complains of burning sensations and pricking under the skin of internal surface of hips. The studying of medical literature convinced her that the problem consisted in nodular growth of nerves. Site began to insist on histological research. As a result of numerous histological researches and subsequent operations the extensive contractions were formed, but the diagnosis still was not made.* 77te *patient continued to find more and more exotic diseases, which might cause burning, and underwent research at neuropathologists, dermatologists, venereologists, infectionists. Being extremely stenic, she managed to achieve registration as a physically disabled person. She spends most part of the year in clinics.*

Therapy

It consists in psychoanalysis. At depression antidepressants are used. The patient should be treated by one doctor — this is prevention of manipulation and carrying out a plenty of medical interventions, which the patient insists on. Regimen, work therapy, switching of attention, narcopsychotherapy are applied.

Neurasthenia

Aetiology

The cause of neurasthenia is mental and emotional overstrain, somatic diseases, chronic fatigue. Neurotic complaints may precede all

mental disorders, and by their character it is frequently difficult to define further prognosis. For example, steady neurotic complaints at the age over 55 frequently precede Alzheimer's disease.

Clinical Features

Frequently psychogenic and somatic diseases begin with neurasthenia. Two types of complaints are possible which are, accordingly, caused by experiences and somatic disorders.

The first type — complaints of excessive fatigability after mental work, impossibility to concentrate, unproductive thinking.

The second type — complaints of physical weakness and exhaustion, impossibility to relax.

At both types of disorders the following are typical: dizziness, muscular pains, «a neurotic helmet» — a peculiar compression of the scalp, irritability, absence of life pleasure, depression, anxiety, disturbance of sleep. Frequently an increased sensitivity to sounds and light, sharp pain in eyes, sensations of uncertain alarm are encountered.

Therapy

Regimen of work and rest, physiotherapy and sanatorium therapy, tranquilizers, various methods of psychotherapy are recommended.

Nervous Anorexia

Aetiology

The reason of nervous anorexia is disturbance of the period of identification, basically in girls at the age of 12-18 years. Another cause may be reduction of the level of hormones of hypothalamus and hypophysis as a result of the vascular or tumoral reason. Behind the mask of nervous anorexia there may also be the depression of a pubertal age. If anorexia is observed in the prepubertal period, sexual development of boys and girls is sharply delayed. Psychoanalysts consider that anorexia is caused by alarm in the oral period. Besides, in evolutionary sense the anorectic patient may be considered altruist who leaves food for the members of his family. A high level of anxiety may also underlie anorexia.

Disease Incidence

Men with anorexia can be met among patients of sexopatholo-gist as they frequently complain of loss of sexual drive and potency, women with anorexia — among patients of gynecologists, as amenorrhea is frequently marked in them.

Clinical Features

In the anamnesis patients state decrease of self-estimation, say that they are frequently being mocked at and called fat. Sometimes teenagers aspire to attain a concrete Ego-ideal, for example, of a film star, singer. Examining themselves in a mirror, they see obvious discrepancy of them and the ideal. In late puberty at youthful love anorexia may hide unrequited love, and also depression.

Patients perceive themselves too stout, though sometimes they consider separate parts of their body stout (calves of legs, cheeks, buttocks). They have obsessive fear to become stout, therefore they may avoid parties, holidays where taking plenty food and drink is possible. They become interested in studying caloric content of food and avoidance of rich food occurs, therefore they frequently choose a stereotyped diet for themselves, being fixed on one-two types of products, more often fruit or vegetables. All this results in loss of weight by more than 15% in comparison with the expected weight; secondary asthenia and reduction of social success occur. Patients strive for loss of weight with the help of exhausting gymnastic exercises. Amenorrhea in women and loss of sexual drive in men are also characteristic.

Diagnostics

The following signs are necessary for making the diagnosis:

- The body weight is preserved 15 % heavier than expected.
- Loss of weight is connected with avoiding food, vomiting, intake of laxatives, excessive gymnastics, use of agents decreasing appetite, intake of diuretics.
- Horror of obesity becomes a supervaluable idea, and the patient considers only light weight admissible for himself.
- Amenorrhea in women and impotence in men.
- Delay of pubertal period.

Patient aged 25, is a student of the university. She decided to lose weight after had fallen in love with a young man; in her opinion, she did not suit his ideal. Reading about special diets, site had chosen an apple one for herself. As a result of following the diet she refused to eat anything, except for apples. As a result faints occurred, she lost weight from 70 to 50 kg; she began to go in for gymnastics for 3 hours a day. She frequently dreamt ofherselfbeing stout arid woke up in horror. Tlie rhythm of menses was broken. She zvas constantly irritable, but was afraid to have a usual meal again not to gain weight.

In symptomatology of atypical nervous anorexia separate symptoms of anorexia are observed, for example, dysmorphophobic experiences or significant loss of weight resulting from application of diet, and also increase of libido.

Therapy

For nervous anorexia treatment with antidepressants (Fluoxi-thine, Prozac, Pridep in small doses. Lithium in small doses with the control of liquid amount), and also application of Benzodiazepine tranquilizers are administered. However, the basic are techniques of psychotherapy: cognitive therapy, psychoanalysis, gestalt-therapy, behavioural therapy.

Personality Disorders

Disorders of personality are stable anomalies of character developing from a set of genetic and acquired properties, which result in social dysadaptation. They are characterized by disturbance of adaptation, totality of affection of mentality and small reversibility. Personality disorders are usually noticeable already in childhood as special disharmonies and disproportionate development of mentality. In dynamics phases of compensation and decompensation alternate. Anomaly of personality develops in prepubertal period from pathocharacteristic reactions, pathocharacteristic development, therefore the diagnosis Of personality disorders is made from 16-17 years. They refer to boundary mental disorders. The exaggerated development of one of the character traits is considered accentuation (K. Leonhard, 1964), which is a variant of norm.

Aetiology

It is possible to distinguish constitutional-genetic, organic and psychodynamic factors leading to the development of anomaly of character. The contribution of genetic factors to the development of personal qualities makes up to 60%; the majority of abnormal personal qualities are inherited according to a recessive or polygenic type. Theories of the end of the XIX century considered the reason of anomalies of character to be mental degeneration in families. Long somatic and neurological disorders in childhood, pre- and postnatal pathology, and craniocerebral traumas — all these contribute to the formation of abnormal character. The significant role is played by education in abnormal and asymmetric family, which frequent background is the use by parents of psychoactive substances. Nevertheless there are facts of development of completely harmonious persons even in the presence of all unfavourable circumstances, as well as the facts of development of abnormal persons in externally harmonious and genetically safe families.

Part of abnormal personal properties develops as original hypercompensation of mental insufficiency (inferiority complex). From the analytical point of view the majority of personality anomalies are connected with delay of development and distortion of stages of psychosexuality, while the acquired abnormal features are more often the result of regress.

Clinical Features

The general diagnostic indications for anomalies of personality are defined as conditions, which cannot be explained directly by extensive damage or disease of the brain or another mental disorder. They should correspond to the following criteria:

- disharmony in personal positions and behaviour, involving usually some spheres of functioning, for example: affectivity, excitability, control of drivings, processes of perception and thinking, and also the style of relation to other people;
- a chronic character of abnormal style of behaviour occurred long ago and not limited by episodes of mental disease;
- the abnormal style of behaviour is universal and clearly disturbing the adaptation to a wide range of personal and social situations;
- the above mentioned manifestations always occur in childhood or adolescent age and continue to exist in the period of maturity, frequently at an elderly age the sharpening of personal properties is marked;
- the disorder results in significant personal distress, but it may become obvious only in late stages of the course;
- usually but not always, the disorder is accompanied by essential deterioration of professional and social efficiency.

Paranoid Personality Disorder

Aetiology

These are features of education and early development, forming the basic mistrust to associates. Mistrust develops at an early children's age as a result of distancing the child from the mother; as a result diffusive fear is formed in him, which further turns to the suspicious and mistrustful attitude to associates. The expressed protective mechanism of projection is characteristic.

Clinical Features

From juvenile age the persistent tendency to interpret actions of other people as suspicious, humiliating dignity of the patient and causing his fear, mistrust and requirement to be protected from them in a strictly definite way are peculiar. Patients consider that associates exploit them, wishing to take away from them the acquired goods, social prestige or economic success, do harm to them, frequently behave in such a way as to compromise or humiliate the patient. Frequently the patients are jealous, unreasonably demanding proofs of fidelity of the spouse or sexual partner. At the same time they do not consider it obligatory to keep personal fidelity. Externalizing own emotions, they use protection in the form of projection, attributing the surrounding people their own not realized features, intentions, drivings, and motives. Due to affective flatness, they seem unemotional, deprived of warmth, they are impressed only by force and authority which they worship and obey. In social aspect paranoid persons externally look business-like and constructive, however their inclination to intrigue for revealing fidelity or infidelity of subordinates frequently causes fear and provokes conflicts. They constantly protect their basic striving for experience of own increased significance, utility and every time refer all the existent events at their expense, are excessively sensitive to failures and refusals. Patients with paranoid disorders of personality are predisposed to chronic delirious disorders induced by delirious disorder and paranoid schizophrenia.

Patient E., 45 years old. In childhood he was cliaracterized by a stenicand straightforward character, constantly provoked conflicts with classmates at school and in the street, as well as with teachers who considered him arrogant. He insisted on his opinion, even when was convinced that he was zorong. He declares ivith assurance that he studied best of all, and ivas given satisfactory marks only ^because ofenvy». He liked to make friends with senior guys whom he used in conflicts with classmates. He trusted nobody and considered tlwt he is underestimated both by parents and friends. After graduating from the economic faculty lie worked for firms sailing petroleum, but did not achieve success, as was constantly conflicting with bosses, proving the priority of his suggestions to them. He is married, has two sons. He changed places of work and residence. He was constantly dissatisfied with everything. He continuously had legal proceedings on trifles. Living on the ground floor, he kicked up a raw with the neighbour who liad left the car at his window, then brought an action against him for mental damage. Borrowing money, he gave them back reluctantly, saying that receipts were made incorrectly. In succession he went on three, and sometimes four trials. Claims on mental damage increased, but he did not manage to win any trial. He was convinced that there was a plot around him. He wrote to committees on human rights and to Strasbourg court, specifying especially the civil case when he was refused in the claim for «tlieform of the roof on the balcony of the second floor at the neighbour» as, in his opinion, this roof is specially made in such a way as, having glided down, to fall on him or members of his family. At home he demanded absolute submission and respect. He could not bear criticism. He quarrelled with his wife because she on purpose put on bright clothes to draw men's attention. During judicial struggle he slept badly, saiu before the closed eyes numerous applications and card file, especially arranged by him for miscarriages of justice. In connection with sleeplessness he agreed to consultation of the psychiatrist.

Therapy

Individual psychotherapy, anxiolytic and small doses of neuroleptics are applied.

Schizoid Personality Disorder

Aetiology

It is caused by genetic predisposition and education on type of «Cinderella», or hypercare at hyperprotective mother and passive father. The most typical cases are caused by education of cold and distancing mother who to the detriment of the child solves her own problems. The child further accepts the given model of education and reproduces it in relation to own children.

Clinical Features

The basic symptom is the absence of contact with associates, autism. The psychasthenic proportion according to E. Kretschmer — from hyperaesthetics, mimosa-like sensitivity to anesthesia — is characteristic. The given types of personalities are inclined to be interested in such abstract fields of knowledge, as astronomy, mathematics, philosophy in which they may achieve successes. Decompensation is in situations where the big volume of communication and fast arriving at decisions are required from them. Emotional coldness, inability to show warm feelings, tenderness or anger to other people are characteristic. They are indifferent to prevailing social norms and conditions. Absence of close friends or confidential relations and absence of desire to have them are marked. They prefer loneliness and an isolating way of life, though in ordinary life they are usually not capable of solving elementary problems. The formation of imaginations is typical, which are usually not realized into reality, but create the original world parallel to the real one. Both the increased sensitivity to insult and absence of reaction to significant conflict situations are possible. However, coldness may be a peculiar protection in connection with hypersensitivity. Usually they do not pay

attention to their appearance and are neglectful to their presentations to associates. Patients with schizoid disorder of personality are predisposed to a simple form of schizophrenia, schizotypic disorders; at a child's age children's autism, and in adolescence — Asperger's syndrome more often occur in them.

> *Patient G., 32 years old. Since childhood he was characterized by reserved disposition. He had never had friends. His success at school was changeable, he made excellent success in physics and mathematics and satisfactory one in literature, could not learn any poem as he did not understand its meaning. He was constantly mocked at, as for many years he wore the same coat and grew out of it long ago. He refused to participate in holiday parties, as he was bored there. He was brought up by an exacting, hyperprotective mother for whom he was the only delight. After graduating from tlie pedagogical institute he began to work as a teacher of physics. He got married at the age of 30, however he thought that sexual life is necessary only for birth of children. He is going «to have» a child somewhere in 10 years. At home he lived in a separate room, which he filled up with broken radio and electronic equipment. In his wife's opinion, he is incapable to hammer in a nail. At work he is characterized as not an interesting, but a reliable worker. During his wife's disease he did not visit her a single time in hospital as he thought that could not help her in any way. The demands of his wife to make decoration brought him in the state of despondency and began to interfere with his work, as he could not make up his mind to do it. As a result of the conflict he left for his mother, who gave him a free hand. However, as slie lived far from his work, lie liad to give it up, as he was constantly late for it. His thinking is florid, reasoning, autistic. He has his own opinion about everything, is not interested in social reality at all which he keeps up with only by the dollar rate of exchange.*

Therapy

The treatment is a group therapy with accent on acceptance of oneself and application of features of own personality with the maximal benefit for oneself and associates. Application of small doses of atypical neuroleptics, in particular Resperidone is possible.

Dissocial Personality Disorder

Aetiology

This is education according to the type of lack of care and neglect, lack of love and attention. The given disorder is typical of patients in whose families criminal persons prevail, and also persons using psychoactive medicines. Patients may also be in families, which are in the situation of social-economic stress resulting from, for example, extreme migration in consequence of wars and conflicts.

Clinical Features

The typical manifestations beginning in childhood are lies, absence from school without reason, flights from home, thefts, fights, use of drugs and illegal actions. Further a striking discrepancy between behaviour and prevailing social and moral standards, indifference to others' feelings, inability to maintain relationship, low tolerance for disorders and a low threshold of the category of aggression, including violence are marked. Dissocial personalities are incapable of experiencing the feeling of guilt and deriving benefit from life experience, including punishment. The impression is sometimes created that they have a very high painful threshold. The characteristic features are unscrupulousness in relations, the insult of spouses, cruel treatment of children and drunken uproars. Asociality, which is formed already at an adult age, dynamically develops from separate antisocial acts at an adolescent and children's age. The early striving for criminal groups, neglect of desires and needs of associates in favour of own egoistic interests is peculiar. Sexuality develops early and is characterized by non-differentiality. The combination of cold cruelty and absence of moral principles is possible.

Patient S., 40 years old. In childhood he was characterized by falsity, unstable success in studies; being the only child, he was looked after, but constantly escaped the parental control. The first truancies at school and escapes from home were fixed already at the age of 10. He did not react to punishment in any way. He began to steal money from parents and spent it on alcohol. With the criminal groups he got acquainted at the age of 12. Due to the social status of his parents he finished a secondary sclwol and was sent to school of militia. However, he did not finish the school as he came to classes in the state of intoxication. Reproaches of the parents and educational measures gave no result. He was twice brought to trial for thefts, but after returning from imprisonment he made no conclusions. In order to get money, which he lost in casino, he spread a rumour about his father's death and collected money for his funeral; against security of his father's name he borrowed the significant sums of money. Lately he lias not had permanent residence and is engaged in larceny of nonferrous metals and gathering empty bottles on garhage dump. At conversation he serenely assures that he likes such way of life and accuses his parents for not supporting him.

Therapy

Groups of coevals (groups of self-help), in which social isolation and punishment will be separated from the help and communication are recommended. Behavioural therapy of the «counter économies» is applied, in which structure the system of encouragement and punishment is associated. The application of means of control over impulses is possible, in particular preparations of lithium and Carbamazepine.

Emotionally Unstable Personality Disorder

The following is distinguished: an impulsive type and a boundary type of emotionally unstable personality disorder.

Aetiology

This is owing to genetic factors and because of upbringing with lack of attention. This type of disorder prevails in families with organic pathology, which is manifested by emotional instability, dysphoria and a low threshold of aggressive behaviour. It is also typical of children who are brought up by a severe and declarative father. A high background of organic pathology and minimal brain dysfunction is also found out in emotionally unstable persons in childhood and adolescence.

Clinical Features

The conflicting and emotional instability is noticeable from childhood. Actions in the period of relaxation of affect are usually not coordinated with conditions. Extremely unstable affect (depressions, irritability, alarm), mood and behaviour resulting in repeated self-destructive actions, which are inadequately connected with external irritation, are characteristic. At a height of emotional relaxation an affective narrowing of consciousness is probable. The given persons do not bear loneliness; they form casual, frequently doubtful relations. In contacts they either idealize or depreciate people, as a result of it steady social relations are not established. Alcoholic intoxication proceeds atypically, with aggression and conflicting, there is high probability of palimpsests. Susceptibility to dependence on other psychoactive substances is also marked.

At an impulsive type the emotional instability and propensity to act impulsively, without taking into account consequences, prevails. Flashes of cruelty and menacing behaviour are usual, especially in response to condemnation by associates.

At a boundary type except for emotional instability the disturbance of an ego image, intentions, internal preferences is marked, and also suicidal threats and acts of self-damage are more often present. A high level of self-estimation does not correspond to reality and perception of personality by associates. As a result the personality is perceived as

arrogant and intolerant. Patients with emotionally unstable disorders of personality are predisposed to depressive episodes.

Therapy

Individual and group psychotherapy, gestalt-therapy, behavioural therapy and application of means of control over impulses, in particular preparations of lithium and anticonvulsants are recommended.

Hysterical Personality Disorder

Aetiology

The disorder is connected with upbringing according to the type of «a family idol» or is a result of cultivation of demonstrative features in families, in which parents try to realize their own claims for leadership in their children. It is more often encountered
in wcmen.

Clinical Features

From childhood the aspiration to be the focus of attention of children and adults, thirst for praise and estimation are marked. The refusal of adults to fulfil the desires causes in the child a reaction of protest with demonstration of fall, rolling up eyes, cogwheel breathing. The character is distinguished by theatricality, demonstrative, extravert behaviour at excitable, emotional persons. Patients are not capable of forming a deep long attachment. Frequent demonstration of attacks of irritability, tears and accusations is characteristic, if the person is not the focus of attention or does not receive praise or approval. Suggestibility and orientation to au

thorities are increased; the influence of associates or circumstances is easily formed. The excessive concern about physical appeal and constant manipulative behaviour for satisfaction of own needs are typical. The facial expression is characterized by excessive vivacity, paramimics are probable, gesture is expansive. In clothes and cosmetics bright tones and extravagance prevail. There is aspiration to occupations, which satisfy the requirement for demonstration. There is high susceptibility to dissociative disorders, including motor ones, and disorders of consciousness, and also to the use of alcohol and other psychoactive substances. Many mental phenomena at hysterical personalities remind of paroxysmal ones, therefore they are close to epileptic circle.

Patient O. (23 years), has been observed for 9 years. At the age of 4 she xoas distinguished by an alive, restless character, is brought up by her mother and grandmother who liave non-realized poetic pretensions. When she sleeps the grandmother recites verses to her, and O. begins to speak only verses in the daytime. She is exacting and goes off into hysterics on any occasion. At the moment of demanding something she falls on the floor, rolls up her eyes, bends as an arch. Her interest to poetry is encouraged by tlie mother and grandmother who intend tlie great future for her. At the age of **6** *she really ivins the first place at the international poetic competition. Her acquaintance with prominent poets emplwsizes the developing significance of her talent. While reciting verses, she walks, raises her hands up, rolls up her eyes and stretches her neck out. Already at this age she sometimes complains of the sensation of lump in tlie throat. O. sets inadequate requirements; for example, being dissatisfied with the color of the sunset, she goes into hysterics, insists on visiting a mortuary «to see faces ofdeath». Due to poetry her training at school has a formal character. Tlie grandmother and mother play a role of servants who should satisfy her desires. At the age of 14 she starts to take alcohol and lias a diaotic sexual life. At the age of 16 she marries a 72-year-old writer from the USA, however, being abroad, she feels useless, considers her life senseless. She continues to take alcoholic drinks and marihuana, in two year gets divorced and returns home. She does not write verses any more, but invites big companies, leads a life of a «prostitute». She speaks in a rough and low voice, constantly smokes, her clothes is distinguished by extravagant brightness.*

Therapy

It includes psychoanalysis, focused on defining the internal sensations of the patient, as well as therapy by anticonvulsants, in particular Difenine and Carbamazepine.

Anancastic (Obsessive-Compulsive) Personality Disorder

Aetiology

It is genetic inheritance, rigid education, delay at anal stages by Freud. It is more often encountered in men.

Clinical Features

The characteristic features of the personality are rigidity, obstinacy, love to order, rules, laws, neatness, details; aspiration to perfection (perfectionism) interfering with completion of problems. Anancasts are formal, serious and deprived of sense of humor, flexibility and tolerance. They are capable of long routine work, if it does not require innovations. In intercourse they are not capable of compromises and insist that associates also obey their rules. Because of fear to make a mistake they are irresolute and think over much before taking a decision. Everything that threatens with change of habitual stereotypes

causes alarm which is concealed by rituals. Frequently persevering and undesirable ideas and drivings appear. They are subject to obsessive-compulsive neuroses and anxious-phobic disorders.

> *Patient A., 30 years old. He was brought up by a stenic mother. He is neat. He always strived for realization of his purposes. From childhood he was interested in mathematics, always had high grades in mathematics and physics, while in otlier subjects he frequently lagged behind. He paid special attention to his appearance, washed himself and brushed his hair long. Frequently striving for solving a problem, lie did not go to bed, felt keenly his failures. He decided to enter tlie mathematical faculty of university, but managed it only in three years. Wliile studying, he spent all his time on training, but nevertheless he was constantly dissatisfied with himself. Wlien getting a lower mark at examination, lie aspired to repass it. In the last course he came to tlie conclusion that he should solve one of the insoluble problems in mathematics like «whetlier there is an algorithm of polynomial time complexity for the decision of* ***NP-full*** *problems». Having completely plunged into the decision of the given problem, he did not start his work according to tlie appointment in connection with tlte fact tfiat it would distract him from the decision of the problem. He was afraid to publish his intermediate results, being not sure of their importance. He speaks seriously about his problems, though without affective intensity. He thinks that first of all he has to prove the correctness of the chosen way to himself. He carefully selects words, doubts tlie correctness of his own statements. He is irresolute in usual actions: for example, Ite asks his mother many times about purdiases when he goes shopping.*

Therapy

It includes logotherapy of V. Frankl, psychoanalysis, client-oriented therapy.

Anxious Personality Disorder

Aetiology

This is a suppressing style of education, as well as genetic burden of anxious-phobic disorders. Deprivation at an early children's age with separation from mother results in a high level of alarm.

Clinical Features

The basic feature is shyness. There are complaints about the feeling of strain and gloomy presentiments, the extreme sensitivity to rejection, resulting in social isolation. During stress flight is typical. There is fear to speak in public. Any refusal is taken as offence, in work they prove to be shy and try to please associates in everything. They do not wish to make contacts without guarantees to be liked. Their mode of life is limited because of the necessity for physical safety; they avoid social or professional work connected to significant interpersonal contacts, because of fear of criticism, disapproval or rejection. At the moment of rejection the alarm is generalized and may be manifested as a panic disorder.

Therapy

It consists in group therapy, assisting to develop and fix new forms of behaviour and reacting, connected with the risk of rejection.

Dependent Personality Disorder

Aetiology

It is a criticizing, suppressing style of education, delay in the oral stage of psychosexual development by Freud. Psychologically it

corresponds to the dependence on authority, declared social values, dependence on psychoactive drugs.

Clinical Features

They subordinate their own needs to the needs of others, compel others to accept responsibility for the most important events in their life, aspiring to play second fiddle, they lack confidence, feel discomfort in loneliness. They become anxious, if they are asked to take a managing role. Pessimism, doubt, passivity, fear to show their sexual and aggressive feelings are characteristic. They experience the feeling of discomfort and helplessness in loneliness because of excessive fear for inability for independent life, therefore they are afraid to be left by the person with whom they have close relations and to remain alone. They cannot take numerous daily decisions without urgent advice and encouragement on the part of other persons.

Therapy

It comprises training of assertivity (the ability to say «no«), increase of self-estimation in conditions of group psychotherapy.

Mental Retardation

Mental retardation is a delay or incomplete development of mentality that is revealed at the age of up to **3** years, but frequently by an early school age. E. Kraepelin has defined mental retardation as a special group of oligophrenias. It is manifested in a cognitive sphere, speech, motility (synkinesis), social functioning, and ability to training. It more often has a non-progressive character. However, at absence of special training, deprivation and metabolic diseases its progress may occur. On a background of mental retardation all range of mental disorders may be observed. If aetiology is known, for example, concrete genetic, systemic, metabolic, etc., it is ciphered as **F7** + additional code of ICD **10.** Scales of social maturity and adaptibil-ity, as well as intelligence development should take into account cultural norms; intelligence quotients (IQ) should also take into accountthese norms. If defectolcigical standardization of IQ and estimations of social maturity are not present, the diagnosis is established not precisely. It is considered as a synonym of oligophrenia. The phe-notype of many patients with oligophrenia is similar, though each syndrome has special features (for example, a typical face at Down's disease or autism at fragile X-chromosome).

Aetiology and Pathogenesis

Aetiology is endogenous or exogenous. Endogenous oligophrenias are caused by genetic reasons, in particular chromosomal ones: Shereshevsky-Turner disease with karyotype XO, polysomia on the X-chromosome (XXX), Klinefelter's disease with karyotype XXY, fragile X-chromosome, trisomia on the 21 chromosome (Down's disease), trisomia on the 18 chromosome (Edwards' syndrome), trisomia on the 13 chromosome (Patau's syndrome). Oligophrenias are possible, caused by local defects of chromosomes, for example: cat's cry syndrome (-5p1), Wolff-Kirschorn syndrome (-4p), carp's mouth syndrome (-18 pq), cat's eye syndrome (+22pq).

However, oligophrenias may also develop at affection of separate genes (for example: phenylketonuria, histidinemia, leucinosis and Hartnup disease) or several genes (amaurotic idiocy, gargoyl-ism, Recklinghausen's disease and others). Usually monogenic oligophrenias

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1+p — surplus of a genetic material in the top shoulder of the appropriate chromosome -p — lack of a genetic material of the top shoulder of the appropriate chromosome +q — surplus of a genetic material in the bottom shoulder of the appropriate chromosome -q — lack of a genetic material of the bottom shoulder of the appropriate chromosome

are connected with disturbance of an amino acid, carbohydrate, microelement exchange, and polygenic — with disturbance of a peptide, mucopolysaccharide exchange. Disturbances of exchange result in a progressive course of defect at mental retardation, and also in addition of such symptoms as attacks, somatic pathology. The reason of mental retardation may be embryopathies, with dysostoses, in particular Apert's, Crouzon's syndromes, COFS syndrome, syndrome of Cornelly de Lange and Rubinstein, and also fetopathies, in particular Marfan's disease. Endogenous cases of mental retardation are transmitted by a polygenic, recessive, dominant way, though there are cases linked to sex.

Exogenous reasons are teratogenic influences of viruses, psychoactive and neurotoxic substances during pregnancy, traumas in labor, metabolic diseases in mother, craniocerebral traumas, encephalites at the age of up to 3 years. They result in symptomatology of oligophrenia, combined with symptoms of pareses, paraplegia or hemiplegia (a children's cerebral paralysis), though frequently paralyses themselves do not mean the development of mental retardation.

The basis of pathogenesis is the mechanism of dysontogenetic delay which is manifested in delay of intelligence development, in structure of emotions and behaviour. An important part is a secondary deprivation, connected with the fact that patients with mental retardation distance and isolate themselves.

Among children examined in medical-genetic consultation for mental retardation Down's disease ranks first, then — other chromosomal aberrations, phenylketonuria, Recklinghausen's neurofibromatosis, tuberose sclerosis, and at last — true microcephaly, «elf's face» syndrome, hypothyroidism, syndrome of Comely de Lange, mucopolysaccharidoses, craniofacial anomalies.

Clinical Features

The following are distinguished:

- a psychopathological estimation of mental retardation from mild up to severe;
- neurological disturbances, in particular focal disturbances and dyskinesias, for example, the disturbance of ability to delicate motor actions;
- disturbances of behaviour from disinhibition up to abnormal reaction to stress;
- a high degree of imitation and suggestibility at absence of or not expressed hypnoability.

At genetically caused oligophrenias the affection of other organs or systems (sight, liver, skin) and frequently a special phenotype are also characteristic. For example, at phenylpyruvic oligophrenia the mottled skin, mouse smell are characteristic; at disturbance of copper metabolism (Menckes' disease) — a low threshold of convulsive activity and curly hair; at Marfan's disease — deeply sitting eyes, spidery fingers and protruding superciliary arches, etc.

On a background of mental retardation the development of psychoses reminding of hebephrenic or paranoid schizophrenia, of affective disorders reminding of depressive and manic episodes is possible. In this case they refer to organic affective or schizophrenic-like disorders, as oligophrenia is always caused by the organic reasons.

Mental retardation may develop at severe somatic diseases or sensory insufficiency (deafness, blindness), which interfere with estimation of intellectual level *(¥78).* At the development of mental retardation the disturbances of behaviour, which earlier referred to oligophrenias with atypical structure of defect are possible. At present they speak about the behavioural disturbances requiring attention or medical measures.

Diagnostics

The diagnosis is based on revealing mental retardation according to the below-mentioned criteria.

Mild Mental Retardation

The level of cognitive abilities (1Q) is 50-69, it corresponds to the age of 9-12 years. Social functioning is limited but is possible in any public group.

Speech develops with delay, but it is used in daily life. The achievement of full independence in self care (taking meals, comfortable behaviour), domestic skills is possible. The basic difficulties are in school progress, there is a delay in learning to read and write. Partial compensation due to the social environment is possible. Thinking is material-concrete, imitation is increased. Abstract thinking is insufficiently advanced. Training for unskilled manual labour is possible. There is emotional and social immaturity. It corresponds to moronity.

Moderate Mental Retardation

The level of cognitive abilities (IQ) is 35-49, it corresponds to the age of 6-9 years. The level of social functioning is limited by the bounds of family and special group.

Lagging behind in the development of understanding and use of speech, skills of self-service and motility are appreciable from early age. At school only basic skills develop at constant special pedagogical attention (special schools). At mature age they also require supervision. The speech stock is sufficient for speaking about own requirements. Phrase speech is poorly developed. At underdevelopment of speech there may be sufficient its understanding at nonverbal accompaniment. It is frequently combined with autism, epilepsy, neurological pathology. It corresponds to imbecility.

Severe Mental Retardation

The level of cognitive abilities (IQ) is 20-34, it corresponds to the age of 3-6 years. The level of social functioning is low.

The reasons are basically organic. It is combined with the ex-pressed motor disturbances. It is similar to moderate mental retardation. The development of communicative skills is possible. It corresponds to deep imbecility.

Deep Mental Retardation

The level of cognitive abilities (IQ) is up to 20, it corresponds to the age up to 3 years. The patients are not capable of understanding and fulfilling the demands or instructions. Incontinence and enco-presis are frequent. The motility is roughly disturbed. There are severe neurological disturbances. It corresponds to idiocy.

Therapy

Therapy of mental retardation is complex and includes medi-camentous, medicopedagogical work both with a child and with his parents. Consecutively simulators of neuronal processes are admi-nistered, to which megadoses of vitamins, glutamine acid, Pyra-cetam (nootropics), Encephabol, Pantogam, Cerebrolysin, Aminalon belong. At disorder of behaviour small and average doses of neuroleptics are administered.

Some Mental Disorders in Childhood

Autism

To children's autism proper the infantile psychosis, autistic disorder, infantile autism, Kanner's syndrome refer.

The first descriptions of this disorder were made by Henry Maudsley (1867).

In 1943 Leo Kanner in his work «Autistic disorders of affective communication» gave a distinct description of this syndrome, having called it «infantile autism».

Aetiology and Pathogenesis

The reasons of infantile autism are completely unknown. There is a number of clinically and experimentally confirmed hypotheses about ethiopathogenesis of the disorder:

- weakness of instincts and affective sphere;
- the information blockade connected to disorder of perception;
- disturbance of processing of the acoustical impressions resulting in the blockade of contacts;
- disturbance of activating influence of reticular formation of the brainstem;
- disturbance of functioning of the frontolimbic complex, resulting in disorder of motivation and planning the behaviour;
- distortions of a serotonin exchange and functioning of the serotoninergic systems of the brain;
- disturbances of the pair functioning of the brain hemispheres.

At the same time there are psychological and psychoanalytic reasons of the disorder. The essential role is played by genetic factors, as in the families suffering from autism the given disease is encountered more often than among the population as a whole. Autism to a certain degree is connected to the organic brain disorder (frequently in the anamnesis there are data on complications in the period of intrauterine development and at labor), correlation with epilepsy in 2 % of cases (according to some data in the general children's population of epilepsy — in 3.5 %). In some patients the diffusive neurological anomalies — «mild signs» are revealed. The specific disturbances of EEG are absent, but various EEG-pathology is found out in 10-83 % of autistic children.

Disease Incidence

The incidence of infantile autism makes up 4-5 cases per 10,000 children. The first-born boys prevail (by 3-5 times more often than girls). But in girls autism has a more severe course and, as a rule, in these families cases with cognitive disorder have already been encountered.

Clinical Features

In his initial description Kanner has distinguished the basic signs which have been used up to this day. The onset of the disorder is at the age of up to 2.5-3 years, sometimes after the period of normal development in early childhood. Usually these are beautiful children with a thoughtful, sleepy, laid-back face — «face of a prince», as if drawn with a pencil.

Autistic loneliness — inability to establish warm emotional mutual relations with people. Such children do not respond with a smile to the parents' caress and display of love. They do not like to be embraced or taken on hands. They react to parents not more than to other people. They behave equally with people and inanimate objects. They practically do not show alarm at parting with relatives and in unfamiliar situations. Absence of eye contact is typical.

Disorder of speech skills. Speech frequently develops with delay or does not occur at all. Sometimes it normally develops up to a 2-year-old age, and then partially disappears. Autistic children infrequently use categories of «value» in memory and thinking. Some children make noise (clicks, sounds, rattles, senseless syllables) in a stereotyped manner at absence of desire to communicate. Speech is usually

constructed as immediate or detained echolalias or as stereotyped phrases out of context, with misuse of pronouns. Even by 5-6 years the majority of children call themselves using the second or third person of pronouns or by name, not using the pronoun I.

Obsessive desire of monotony. The stereotyped and ritual behaviour, insisting on keeping everything unchanged and resistance to changes are characteristic. They prefer to eat the same food, to wear the same clothes, to play repeated games. The activity and game of autistic children are characterized by rigidity, repeatability and monotony. The freakish behaviour and affectation (for example, the child constantly whirls or rocks himself to and fro, touches his fingers or claps his hands) are also typical.

Deviations in game. Games are more often stereotyped, not functional and not social. The atypical manipulation of toys prevails, there is no imagination and symbolical features. Predilection for games with not structured material, *e. g.* sand, water is marked.

Atypical sensory reactions. The autistic children react to sensory stimuli either extremely strongly, or too weakly (to sounds, pain). They selectively react to speech addressed to them, showing their interest in nonverbal, more often mechanical sounds. The painful threshold is frequently lowered, or atypical reaction to pain is marked.

At children's autism other signs may also be observed: sudden fits of anger, irritation or fear, not caused by any obvious reasons. Sometimes such children are either hyperactive, or confused. The behaviour is accompanied by self-damage in the form of impacts by-head, biting, scratching, pulling hair out. The disturbances of sleep, enuresis, encopresis, problems with nutrition are sometimes marked. In 25 % of cases there may be convulsive attacks at a prepubertal and pubertal age.

Diagnostics

The criteria are as follows:

- impossibility to establish the relations of full value with people from the beginning of life;
- the extreme isolation from the external world with ignoring the environmental stressors until they become painful;
- insufficiency of a communicative use of speech;
- absence or insufficiency of a visual contact;
- fear of changes of the environmental situation («the phenomenon of identity» according to Kanner);
- direct and set aside echolalias («gramophone, parrot speech» by Kanner);
- delay of development of ego;
- stereotyped games with not game objects;
- clinical manifestation of semiology — at the age of not more than 2-3 years.

Therapy

It includes three directions:

- treatment of disturbances of behaviour,
- medical-psychological-pedagogical correction,
- family therapy.

The diversity, multiplicity and integrated approach of medical-rehabilitation measures with the unity of biological and psychological methods are necessary. The medical-pedagogical and psychological help is most effective in the basic stages of personality formation (up to 5-7 years).

Medicamental treatment: the pathogenetic effect of medicinal means is maximal at the age of up to 7-8 years, then medicines have a symptomatic effect. Now Amitriptyline is most recommended as the basic psychotropic means for children of preschool age (15-50 mg a day) by long courses of **4**-5 months. Some researchers assign the role of

ethiopathogenic substance to vitamin B, (in doses up to 50 mg a day). Atypical neuroleptics — Resperidone in doses 0.5-2 mg per day within 1-2 years are applicable. A great importance is attached to psychotherapeutic work of parents with a child. The majority of autistic cliildren are not capable of studying at ordinary school and need a special training. It is common knowledge that for autistic children it is better to live at home and to attend a special day school.

Rett's Syndrome

A progressing degenerative disease of the central nervous system of a presumably genetic origin encountered mainly in girls is named after the Austrian scientist A. Rett who described it for the first time in 1966. The author informed about 31 girls with regress of mental development, autistic behaviour, loss of purposeful movements and occurrence of special stereotyped motor acts of «clenching hands».

Aetiology and Pathogenesis

The hereditary nature of the disease is confirmed. The questions of the disease pathogenesis remain disputable. The genetic nature is connected to a fragile X-chromosome and presence of mutations in genes-regulators of replication process. A selective deficiency of some fibers regulating growth of dendrites, low quantity of glutamine receptors in basal ganglions, dopamine receptors in nucleus caudatum, disturbances of cholinergic functions are revealed. The hypothesis of the interrupted development^ which basis is the deficiency of neurotrophic factors, has been put forward by D. Armstrong. The affection of the bottom motor neurons, basal ganglions, the involvement of the spinal cord, trunk and hypothalamus are supposed.

The analysis of morphological changes at Rett's syndrome specifies the delay of the brain development after birth and stop of its growth by a 4-year-old age. The delay of growth of the body and separate organs (heart, liver, kidneys, spleen) is revealed.

Disease Incidence

Its incidence is rather high — 1:10,000 girls. In the world more than 20 thousand cases of the disease are described; the majority of them are sporadic, less than 1 % are family. On investigation of twins the concordance by Rett's syndrome of monozygotic and discordance of dizygotic pairs is shown. The geographical incidence of Rett's syndrome is non-uniform. The accumulation of patients in certain small rural areas («Rett-areas») is marked, that may be connected with existing population isolates. Such concentration of the disease is observed in Norway, Italy, Albania and Hungary.

Clinical Features

In ante- and perinatal periods, in the first half-year of life the development is estimated as normal. However, in many cases the congenital hypotonia, insignificant delay in the formation of the basic motor skills are observed. The onset of the disease is from 4 months till 2.5 years, but most frequently it is manifested at the age of from 6 months up to 1.5 years. Describing a psychopathological process at Rett's syndrome, some authors speak about «dementing», others — about non-uniformity of mental disturbances.

In the course of the disease 4 stages are distinguished:

- Age of the child is 6-12 months: weakness of a muscular tone, delay of growth of hands and feet in length, of head circumference.
- Age is 12-24 months: ataxia of the trunk and gait, flapping and pulling movements of hands, unusual fingering.
- Loss of the earlier acquired skills, abilities to game, communications, including visual ones.

- Disintegration of speech, occurrence of ccholalias, including retarding ones, misuse of pronouns.

Diagnostics

The diagnostic criteria of the Rett's syndrome are as follows:

- normal pre- and perinatal periods;
- normal psychomotor development within the first 6-18 months of life;
- a normal head circumference at birth;
- delay of a head growth in the period from 5 months till 4 years;
- loss of the acquired movements of hands at the age of from 6 up to 30 months, connected with the time of disturbance of communication;
- a se+vere disturbance of expressive and impressive speech, a rough delay of psychomotor development;
- stereotyped movements of hands reminding of wringing, squeezing hands, claps, «washing hands», rubbing them, appearing after the loss of purposeful movements;
- occurrence of disturbances of gait (apraxia and ataxy) at the age of 1-4 years.

Heller's Syndrome or Symbiotic Psychosis

This is a quickly progressing dementia in children of early age (after the period of normal development) with the distinct loss during several months of the earlier acquired skills, with occurrence of anomalies of social, communicative or behavioural functioning.

Aetiology and Pathogenesis

The reasons of the disorder are not found out. The notion about the presence of organic nature of the disease prevails.

Clinical Features

After the period of normal development up to 2-3 years within 6-12 months a total dementia is formed. The premonitory period of unclear disease is frequently marked: the child becomes capricious, irritable, anxious and hyperactive. Speech becomes poor, and then breaks up. The earlier acquired behavioural, game and social skills are lost. The control over the function of intestines and bladder is lost. Interest in the environmental situation is lost, stereotyped motor actions are characteristic. Deterioration within several months is followed by the condition of plateau, and then the insignificant improvement may occur. The disorder is frequently combined with a progressing neurologic condition, which is usually coded separately.

The prognosis of the disease is unfavourable. The majority of patients remain with a severe mental retardation.

Therapy

It is mainly symptomatic. It has three directions: treatment of disturbances of behaviour and neurological disorders; measures of social and educational services; help to family and family therapy.

There are no data on efficiency of any form of medicinal therapy except for a short-term treatment of disturbances of behaviour (there is information that the disorder is caused by a «filtered virus», and the specificity of symptoms and signs is connected to the age features of the disorder).

Hyperkinetic Disorder

The given group of disorders is characterized by the early onset, a combination of excessively active, poorly modulated behaviour with the expressed carelessness and absence of persistence in fulfilment of any

tasks. Behavioural features are manifested in any situations and are constant in a time interval.

Hyperkinetic disorders usually occur during the first 5 years of life. Their main features are absence of persistence in cognitive activity, a tendency to pass from one task to another, not completing any of them; an excessive but unproductive activity. These characteristics are kept at a school age and even in adult life. Hyperkinetic children are frequently reckless, impulsive, inclined to get in difficult situations because of hasty actions. Mutual relations with children of his age and adults are broken, without feeling of distance.

Secondary complications include dissocial behaviour and decreased self-respect. The accompanying difficulties in acquiring school skills (secondary dyslexia, dyspraxia, acalculia and other school problems) are frequently observed.

Disease Incidence

Hyperkinetic disorders are encountered several times more often in boys than in girls (3:1). In primary school the disorder is observed in 4-12 % of children.

Clinical Features

The basic signs are: disturbances of attention and hyperactivity manifested in various situations — at home, in children's and medical establishments. Frequent change and interruption of any activity without attempts to finish it are characteristic. Such children are excessively impatient, restless. They may jump up from their place during any work, chat a lot and make much noise, fidget. Diagnostically significant is the comparison of behaviour of such children with other children of the given age group.

Accompanying clinical characteristics are: disinhibition in social interaction, recklessness in dangerous situations, thoughtless violation of social rules, interruption of studies, hasty and wrong answers to questions. Disturbances of training and motor awkwardness are rather frequently observed. The symptomatology of the disorder is most brightly manifested at a school age. In adults hyperkinetic disorder may be manifested in dissocial personality disorder, toxicomania or other condition with disturbances of social behaviour.

Therapy

Medicamental treatment is effective in 75-80 % of cases at correctly established diagnosis. Its action to a great extent is symptomatic. The suppression of symptoms of hyperactivity and disturbances of attention facilitates the intellectual and social development of a child. Medicamental treatment submits to several principles: only a long-term therapy which is completed at a teenage period is effective; the selection of a preparation and a dose proceeds from an objective effect but not from sensations of patient. If the treatment is effective, it is necessary to make trial breaks with the certain time intervals in order to determine whether the child can do without preparations. It is desirable to make the first breaks on vacation when the psychological strain of the child is less.

The pharmacological substances used for the treatment of this disorder are stimulators of the central nervous system. The mechanism of their action is completely unknown. However, psychostimulants not only calm the child, but also influence other symptoms. The ability to concentration increases; there appears the emotional stability, tactfulness towards parents and coevals, social relations become normal. Mental development may be sharply improved. At present the following are used: amphetamines — dexamphetamine (Dexedrine), Metamphetamine; Metilfenidat (Ritaline); Pemoline (Zilert). The individual sensitiv-

ity to them is various. If one of the preparations is inefficient, another is used. The advantage of amphetamines is a long duration of action and the presence of prolonged forms. Metilfenidat is usually taken 2-3 times a day; it has more often a sedative effect. Intervals between taking the medicine is usually 2.5-6 hours. The prolonged forms of amphetamines are taken once a day. Doses of psychostimulants are: Metilfenidat — from 10 up to 60 mg per day; Metamphetamine — from 5 up to 40 mg per day; Pemoline — from 56.25 up to 75 mg per day. Treatment usually starts with low doses with a gradual increase. Physical dependence usually does not develop. In rare cases of development of tolerance it is necessary to pass to another preparation. It is not recommended to administer Metilfenidat to children younger than 6 years, Dexampheta-mine — to children younger than 3 years.

Emotional Disorders of Childhood

The diagnosis of emotional (neurotic) disorder is widely used in children's psychiatry. By incidence it yields only to behavioural disorders.

Aetiology and Pathogenesis

In some cases this disorder develops in the presence of a tendency in a child to excessively react to daily stressors. It is supposed that similar features are incorporated in character and genetically caused. Sometimes such disorders occur as a reaction to constantly anxious and hypercareful parents.

Disease Incidence

Incidence makes up 2. 5 % both in girls and in boys.

Therapy

A specific treatment up to now is not found. Some kinds of psychotherapy and work with families are effective. At the majority of forms of emotional disorders the prognosis is favorable. Even severe disorders gradually become mild and in the course of time pass without treatment, not leaving residual symptoms. However, if the emotional disorder, which has begun in childhood, proceeds at adult age as well, it more often takes a form of a neurotic syndrome or affective disorder.

Stutter *

The characteristic features are: frequent repetitions or prolon-gation of sounds, syllables or words; frequent stops, irresolution in speech with disturbances of its smoothness and rhythmic flow.

Aetiology and Pathogenesis

Exact aetiological factors are unknown. A number of theories are put forward:

- Theories of the «block of stutter» (genetic, psychogenic, so-mantogenic). The basis of the theories is cerebral dominancy of speech centers with constitutional predisposition to the development of stutter owing to stress factors.
- Theories of the beginning include the theory of failure, theory of needs and theory of anticipation.
- Theory of teaching is based on explanation of principles of reinforcement nature.
- Cybernetic theory: speech is an automatic process as feedback, and stutter is explained by failure of feedback.
- Theory of change of a functional condition of brain. Stutter results from incomplete specialization and lateralization of language functions.

Researches of the recent years testify to the fact that stutter is a genetically inherited neurological disorder.

Disease Incidence

Five to 8 % of children suffer from stutter. The disorder is 3 times more often encountered in boys than in girls. In boys it is steadier.

Clinical Features

Stutter usually begins at the age of up to 12 years; in most cases there are two acute periods — between 2-4 and 5-7 years. It usually develops within several weeks or months, starting with repetition of initial consonents or whole words, which are the beginning of a sentence. In the progressing course of the disorder the repetitions become more and more frequent, with stutter on more important words and phrases. Sometimes it may be absent at reading aloud, singing, speaking to domestic animals or inanimate objects. The diagnosis is established at duration of the disorder not less than 3 months.

Therapy

It has some directions. Distraction of attention, suggestion and relaxation are most typical. Stutterers are trained to speak simultaneously with rhythmic movements of hand and fingers or slowly, drawlingly and monotonously. The effect is more often temporary.

Classical psychoanalysis, psychotherapeutic methods are not effective in stutter treatment. Modern methods are based on the point of view that stutter is a form of the trained behaviour, not connected with neurotic manifestations or neurological pathology. Within the framework of these approaches it is recommended to minimize factors strengthening stutter, to reduce secondary disturbances, to convince a stutterer to speak even with stutter freely, without ceremony and fear to avoid secondary blocks.

The method of self-therapy is effective, which is based on precondition that stutter is the certain behaviour, which can be changed. This approach includes desensitization, decreasing emotional reactions, fear for stutter: stutter is what a person does, and a person can learn to change what he does.

Psychopathology of Adolescence

An adolescent period of life of a person, traditionally considered only transitive from childhood to maturity, seems to us to be one of the most important in ontogenesis. In this period the sensitivity to various insalubrities considerably increases, risk of manifestation of endogenous mental diseases intensifies, sharpening of pathological traits of character, decompensation of residual-organic cerebral pathology take place, neurotic and pathocharacteristic reactions become considerably more frequent.

Changes influence all spheres of personality: the expressed neuroendocrine changes causing the process of puberty, the intensive growth of all systems of organism occur. In the sphere of cognitive development the ability to abstract thinking — the most advanced function of intelligence — appears, the time prospect extends. Self-consciousness and self-estimation are formed, a young man is released from a dominating role of the family, joins the group of coevals, chooses his own social role.

Psychological development seldom proceeds smoothly even in a healthy teenager and is frequently characterized by instability and disharmony. The basic features of mental activity in the epoch of puberty are:

- the expressed instability and inconsistence of separate sides of mental sphere;
- a leading role of affective sphere, the so-called «pubertal lability of mood» which determines the whole behaviour, interests, studies;

- immaturity of all sides of mental life: emotions, behaviour, thinking, representations, estimation of the phenomena of the environment;
- directedness of mental activity to the external world, striving for expansion of contacts, comprehension of features of another person.

In the modem society the traditional conditions of a family life and education are replaced by new conditions, therefore at inspection of a teenager it is important to take into account social-cultural factors. Conditions of education refer to them: the full and incomplete family, adopted child; a child may also be brought up by a unisex pair. A teenager may belong to the national minority, be subjected to racial, religious or national discrimination. The American researchers have distinguished the «effect of acculturation»: immigrants from the countries where young men have already fulfilled all the functions of adult people, at leaving for the USA where a teenage period is considerably extended, experience anew the processes of separation and affirmation of independence, and the depth of this crisis depends on a distance of break between cultures and depth of necessary changes.

Situational-Personal Reactions

For a juvenile age the psychological situational-personal reactions are characteristic. The given reactions are transient; we can easily follow their psychological underlying reason, they are manifested in certain microhabitat and directed at certain persons, do not cause any disturbance of social adaptation of a teenager and are not accompanied by somatovegetative disorders. However, the given reactions may exceed the limits of psychological reactions and pass to pathological ones. In this case they overstep the limits of that situation and environment where they have occurred, and are repeated in the same way on various inadequate occasions, their psychological clearness being lost. These reactions are peculiar mainly to children, are encountered in younger teenagers, and also in teenagers with mental infantilism and residual-organic affection of the brain. The following refers to them:

- Reaction of refusal is encountered at separation from family, habitual conditions, is expressed by absence of aspiration to the contact with associates, lack of communication, inhibition of thinking, refusal of food and games.
- Reaction of opposition, which may be active: rudeness, disobedience, provocative and aggressive behaviour, swearing, crying, which are strictly oriented and deliberate. As a whole the behaviour is quickly normalized at favourable change of situation. The reaction may also be passive — in this case it is manifested by refusal of meal, non-fulfilment of assignments, escape from home, suicide. In children it is manifested by mutism, vomiting, enuresis, encopresis.
- Reaction of imitation: a teenager tries to imitate his idol in everything or in case of negative imitation — to be his full contrast.
- Reaction of compensation: a teenager achieves significant success in other sphere of activity than that, in which he has failed before. The reaction of hypercompensation is also encountered, when a young man aspires to achieve success in that sphere of activity where he was earlier unsuccessful. For example, a physically weak boy becomes a wrestling champion, or a pupil having difficulties in memorizing new material learns by heart the whole collections of poems.

To the reactions peculiar mainly to teenagers and young people, the following refer:

- Reaction of emancipation, releasing from the control of adults. It is obviously manifested in disobedience, rudeness, obstinacy,

the demonstrative use of alcohol and narcotic substances. To its latent forms vagrancy, sexual promiscuity, joining antisocial groupings relate.

- Reaction of grouping with coevals is rather characteristic of teenagers. Conditionally prosocial and asocial groups are distinguished. The prosocial groups develop positive moral qualities. To them circles by interests, studios, sports and art sections, youth parties and organizations refer. Asocial groups are away from social and moral problems, development of individual abilities; their basic task is entertainment and pastime of participants. Asocial groups more often do harm to the society, cause complications in relations of their participants with the law. As an example youth gangs, «basement» companies, «meetings of friends» to use drugs may serve.
- Hobby-reaction is a keen interest in any one kind of activity — music, drawing, engineering, collecting, gambling. The intensity of hobbies may greatly vary — from spending free time up to full absorbing by hobby when neither time nor forces are left for another activity.
- Reactions caused by a sexual drive. The adolescence and youth are frequently characterized by hypersexuality alongside with difficulties in search of suitable sexual partners. «Hormonal explosion» at insufficient control of sexual impulses results in the fact that the drive becomes uncontrollable. There is also frequently a break between the images of an «ideal beloved» and the object for satisfaction of a sexual drive that complicates the formation of adequate interpersonal relations. To excesses most frequently encountered in this sphere, the following refer: transitory youthful homosexuality, group rapes, sexual promiscuity, chaotic sexual relations in the state of alcoholic intoxication; and to consequences of low culture of sexual relations — undesirable pregnancy and maternity of girls-teenagers, venereal diseases.

To reactions caused by the formation of consciousness, dysmorphoreaction and reflexioreaction refer.

Dysmorphoreaction consists in increased attention to own appearance. It is also characteristic of normally developing teenagers as in the course of rapid growth and puberty with the change of body shape the necessity of formation of a new internal image of ego, sexual identity appears. In non-pathological cases it does not take a leading place in the life of a young man and does not interfere with a good social adaptation. In case of psychopathology of experience about own appearance dysmorphophobias occupy a central position in the emotional world of a teenager. A young man is ashamed to go out, to go to school because of «own ugliness». Most time is spent on viewing himself in a mirror and reflection on own not existing ugliness and fantasies about how to get rid of it. Patients with similar experiences actively demand intervention of plastic surgery, torment themselves with infinite cosmetic procedures. Quite often depressive and suicidal ideas, feelings about unattractiveness for the opposite sex, the disgust caused in other people are added.

Reflexiorcaction, or enhanced attention to own inner world, is not less characteristic of teenagers. H. Maudsley ironically notices on this occasion, «The youth passes through attacks of metaphysics as a child — through attack of measles». In the younger teenage period there is a confrontation and denying all authorities, in the senior teenage period the formation of own philosophical views and systems takes place. The given intellectual activity does not interfere with effective study, contacts with coevals. In pathological cases the so-called «metaphysical intoxication» is marked, thus intellectual activity becomes non-productive, the ideas pretentious, inconsistent, and even jusi ridiculous. In endogenous cases the disturbance of thinking in the form of thought

blocking, «inflows» of thoughts, depersonalization is also marked; at a long course they are joined by negative deficient symptoms.

Behaviour Disorders

The universally widespread for juvenile age is deviant behaviour. During interrogation up to 90 % of boys-teenagers speak about it. Sex ratio is M:W = 3-7: 1. It includes: drunkenness, offences, vagrancy, sexual deviations, suicide intentions, suicides and suicidal attempts.

Teenagers with deviant behaviour also frequently demonstrate bad social skills, bad cognitive skills in the field of solving problems, bad academic skills and achievements. The initial influence on the given disturbances is rendered by parents-children's relations — in the basic majority the youthful offences are committed by teenagers from families where bad discipline is combined with negative inter-familial relations: parents are quarrelling and rejecting, mother is not loving and indifferent to the child. To secondary factors the social and environmental influences refer.

Several mechanisms of formation of deviant behaviour are distinguished:

- mechanism of autonomy — the action of negative reasons and conditions is non-specific, and any of them result in rapid development of deviant behaviour and social dysadaptation;
- mechanism of generalization — the degree of expressiveness of action of the negative factor is inversely proportional to the age of display of influence breaking ontogenesis, that is, the earlier the action of the given factor was shown, the more expressed it is;
- mechanism of pseudoadaptation — stimulatory-disinhibit-ing action of alcohol in teenagers with pathologically burdened anamnesis creates the illusion of adaptation and self-realization, resulting in fixing and burdening alcoholism;
- mechanism of deformation is characteristic of teenagers who frequently do not have normal family education, control over training, stimulation of intellectual achievements and formation of moral values; at alcoholism deformation of personality takes place;
- mechanism of induction or symptoms before the disease — at this we may observe a psychogenic formation of signs of dependence, loss of control over behaviour even before the development of the disease proper or dependence on concrete substances.

The level of deviation can also be various: for example, drunkenness in the initial stage may be only an immoral phenomenon, at formation of alcoholism as a disease its medical-social aspects are considered, further, on occurrence of alcoholic psychoses the questions of the forensic-psychiatric examination excluding responsibility are already mentioned.

For qualitative supervision over teenagers and prevention of possible suicides it is important to note a number of suicide-dangerous reactions peculiar to teenagers. At younger and middle juvenile age (12-16 years) it is a reaction of deprivation: at this there is a decrease of emotional activity, loss of interest in hobbies, negative experiences and fear for the committed offence prevail. More often it occurs in families with authoritative education; suicidal desires disappear at resolving a conflict. In senior teenagers (16-18 years) these are explosive reactions at which the affective strain, animosities are marked; frequently drunkenness and offences join them. The reaction of self-elimination is possible when a socially and mentally immature teenager sees in suicide the only way out from personal or social crises.

Autodestructive, self-destroying aspect of behaviour is characteristic not only of teenagers with psychopathology, but also of quite

healthy and safe young people. In a wide sense the extreme kinds of sports, and dangerous «feats», and aspiration to extreme experiences can also refer to it. The given phenomenon can be explained from evolutionary positions: a teenager requires a full regeneration of his/ her personality, the former child and parental expectations die in him to give a place to an adult, socially mature individual. To these purposes in archaic societies rituals of dedication of youth to adults with numerous fatally dangerous tests served. Later on it was revived in scout, pioneer and comsomol youth social movements where the activity of youth was directed to socially acceptable channel.

Epilepsy

Epilepsy is from Greek *«epilepsio»* — **«1** seize». Epilepsy is a chronic disease of the brain of various aetiology, characterized by repeated attacks occurring as a result of excessive neuronal discharges and accompanied by various clinical and laboratory symptoms. Epilepsy is a uniform nosological unit, where the main generalizing clinical criterion is the presence of repeated attacks. Single or casual epileptic attacks cannot be considered as epilepsy, but are — at lowering the threshold of convulsive readiness — a version of reactions of the brain and can occur under certain conditions in any man.

Aetiology

A lot of famous people suffered from epilepsy, for example Van Gogh, great Russian writer Dostoevsky, Napoleon; however the illness did not influence the displays of their intelligence. Nevertheless frequently at epilepsy both attacks and original changes of personality are marked. All theories of the illness can be divided into the following groups:

- The exogenous theory. The contribution of the brain traumas to causes of the illness is highest, especially of those that result in damage of the left temporal lobe of the brain and also of repeated traumas. Brain tumor, vascular diseases, systemic lupus, rubella, encephalitis, meningitis are also of importance.
- The genetic theories. Some forms of the illness are transmitted by a dominant type, others — by a recessive one. Among relatives of patients suffering from epilepsy persons with epileptic traits of character are encountered. At many mental disorders which are generically caused the epileptic attacks are marked, for example, hepatolenticular degeneration (Wilson's disease), Alzheimer's disease. The level of paroxysmal reactions is genetically caused in many animals, for example dogs, rats, etc. Therefore the same damage of the brain in some cases result in epilepsy, but in other cases the reaction is absent.
- The constitutional theory connects the illness with the special morphological constitution, for which the anomalies of the skull, distal parts of extremities, and other multiple dysplasias are characteristic. Dysplasias are signs of organic insufficiency of the brain.
- The psychoanalytic and psychological theories explain epilepsy as the influence of education by a severe and totalitarian father, fear for whom causes flight to regress, that is, an epileptic attack.
- The evolutionary theories are based on comparison of role of attacks in animal and man. Biological model of epilepsy is the attacks in rats, which are caused by a loud sound (audiogenic epilepsy). There are selective advantages peculiar to epilepsy, due to which the illness and its carriers are not exposed to selection. To them accuracy, aspiration to collecting which matter in conditions of stress refer.

Pathogenesis

An epileptic attack represents an attack with a sudden onset, stereotyped in clinical manifestations occurring as a result of the neuronal discharges, revealed with the help of EEG, and manifested in the form of sensory, motor, affective, cognitive and somatic symptoms. The most important basis for classification of attacks is the character of their onset. At generalized attacks the fit begins with a sudden loss of consciousness, and on EEG the pathological focus is not found out. Partial (focal, local) attacks begin owing to a pulse from the center (focus) in the limited part of one hemisphere of the brain. They are subdivided into simple and complex. The former differ from the latter in absence of disorder of consciousness during attack. The focal attacks can spread and pass into generalized ones — this is a secondary generalization.

The primary center in some years can result in the formation of the «mirror» centers in the opposite hemisphere and additional centers in the front and back parts of the brain. It is a classical dynamics of epilepsy when as a result of attack plenty of metabolic products and at intoxication — products of disintegration of toxins are found out in urine, saliva and faeces. Therefore it is possible to speak about a detoxication function of an epileptic attack. At the beginning of attack such factors of external environment as rhythmic light, screen of TV set, moving in the lift, lunar rhythms, additional traumas of brain, high temperature or intoxication, alcoholic or narcotic, are of importance.

Disease Incidence

The prevalence of epilepsy in a general population makes up 7-10 cases per 1,000 men. The risk of development of epileptic attacks during life makes up about 10 %. The disease can develop at any age, however in 75 % epilepsy begins before a 20-year-old age. The parameters of morbidity among males and females are practically equal. As a minimum in 30 % of patients in the course, of time mental disorders occur and most frequently — at symptomatic forms.

Some Forms of Attacks

Generalized Tonoclonic Spasms (Grand Mai)

This type of attacks is considered classical. It was described by Hippocrates and Halen. The symmetric motor displays on the right and on the left, spasms, disorganization of consciousness, and amnesia after the attack are characteristic of the classical attacks. In 1/3 of cases such attacks in the afternoon begin with aura (in formal translation — breath). Frequently the attacks are marked in the second half of night. The type of aura depends on localization of the center, for example, at the affection of the temporal lobe there can be elementary auditory hallucination and illusion, occipital lobe — visual elementary disorder of perception, parietal lobe — psychosensorial experience with depersonalization and derealization; aura is also possible in the form of vegetative sensations with paresthesia and cenesto-pathy. After aura, which precedes maximally 1-2 seconds, the tonic stage follows. At this the muscular tonus increases, mouth opens, eyes are rolled up, nostrils are inflated, hands are clenched in fists and pressed to the body, legs are raised and feet are protruded. The blood pressure increases. The patient suddenly falls down and thus burns, damage and falling back of the tongue are possible. In some seconds the clonic stage is observed. It is characterized by symmetric twitching of extremity muscles, biting one's tongue; thereof there is bloody foam from mouth. Dejection and involuntary urination are marked. At transition from tonic to clonic phase it is desirable to insert a rubber tube or soft spatula between molar teeth and to turn head away. The rigid holding of the patient is contraindicated, as it can result in crises and dislocations. At falling back

of the tongue it should be drawn out with tongue forceps. In some seconds a stage of postepileptic inhibition is marked. The patient also falls asleep, such period can last more than 30 minutes. On EEG the symptom of multiple peaks practically in all leads is marked.

Abortive variants of tonic-clonic attacks consist in the fact that there is only a tonic or clonic phase, aura is absent. To generalized attacks the children's spasms (myoclonic) refer, which are characterized by wince (surso) with separate twitch by head and hands, flexion and extension of trunk (salaam).

Focal Attacks

At these attacks motor displays are unilateral, consciousness is not always lost, therefore amnesia can be absent. On EEG above the center the symptoms of individual spike and dome or spike and wave with frequency from 1 up to 4 signs per second are marked. Due to small expressiveness of motor displays, they refer to mild attacks (petit mal).

To variants of focal attacks absence (simple and complex), attacks with psychopathological phenomena, Jacksonian and Kojew-nikoff's epilepsy refer.

- Absence. In translation from Greek it means «**1** turn off». At simple absence there is hardening, half-opened mouth, trembling of eyelashes, rolling up one's eyes or the glance becomes stiffened. The pronouncing of simple words or inarticulate sounds is possible. This attack can be noticed at the moment of conversation, though the patient remembers nothing. At complex absence after hardening the turns of trunk, throw-out of hands, turns of head are observed, rotations and more difficult actions are possible. For example, the patient can leave a room and slap the door, take any subject, perform another impulsive act and even the aggressive action.
- Jacksonian attacks. In contrast to center spasms, a march (Jacksonian march — consecutive spasms) occurs, from below upwards or from above downwards. For example, at first a spasm is marked in the mimic muscles, then in the shoulder and hand on the same side, further in the leg. In this case consciousness is usually kept, patients also aspire to appear in a safe place or to constrain the development of attack by massage of the extremity. In the opposite sequence consciousness can be lost and Jacksonian attack become generalized. EEG signs are marked above the hemisphere opposite to the motor displays.
- Kojewnikoff's attacks. These attacks occur after the suffered encephalitis, they are usually local. Consciousness is not lost. The attack is realized as a local spasm, for example, in the muscles of a hand, foot, neck. It looks like local hyperkine-
  sis.
- Attacks with psychopathological phenomena. To them paroxysms of elementary hallucinations and illusions, vegetative, affective disorders refer. Elementary hallucinations are: visual (phosphene) — flare of light, circles, strips, simple geometrical figures, olfactory (parosmia) — unpleasant smell of rotting, smell of food accompanied by sialorrhea, acoustical (acuphene) — rumble, roar, singing. Vegetative paroxysms are typical of diencephalic epilepsy; they proceed with sensations of heat, cold, fear of death, paresthesia, sensations of compression in the stomach, derealization and depersonalization. After the attacks the excretion of plenty of urine is possible (urina spastica). Psychosensorial attacks, speech attacks are also observed.
- Epileptic affective disorders. More often the periods of dysphoria, spiteful, irritable and unstable affect are marked which are not motivated by any reasons and last for some hours and even days. Ecstatic episodes are also characteristic.

Epileptic Psychoses

In 1 % of patients with epilepsy lasting more than 10 years psychoses are observed. They proceed with and without impairment of consciousness. In symptomatology of psychoses twilight state of consciousness, oneiroid, hallucination and delirium are observed. Frequently such psychoses lead to schizophrenic-like organic disorders.

Epileptic Dementia

At long course of the disease changes of personality typical of epilepsy take place. To them sugariness and rigidity, pedantry and vindictiveness refer. Further derangement of memory, decrease of activity and indifference to episodes of malignancy are added. In these cases we speak about epileptic dementia which does not differ from the organic disorder of personality.

Diagnostics

The diagnosis of epilepsy is made on the basis of observable attack, presence of two attacks in anamnesis, data of EEG and neurological examination.

Therapy

The treatment is composed of diet therapy, medicamental therapy which depends on the form of attacks, special recommendations.

The dietary therapy includes salt-free diet, reduction of quantity of liquid, ketogenic diet with recommendations to use ketogen or beef fat. Medicamental therapy assumes a long reception of preparations of iminostilben group, to which Carbamazepine (Finlepsin, Timonil, Tegretol), Valproic acid (Depakine), tranquilizers (Phenazepamum, Ambien, Zoipidem, Diazepam, Valium) and barbiturates (Benzona-lum, Aprobarbital, Anilepsine), Phenytoin (Dipheninum) refer. The periods of therapy by nootropics (Piracetamum, Nootropil), and dehydration therapy (Magnesii sulfas) are administered. Once every **6**-10 months it is recommended to carry out EEG and general analysis of blood for prevention of complications of long therapy. Recommendations at epilepsy include the following: exclusion of mobile telephones, restriction of work with a computer and watching TV, often change of employment, usage of dark glasses at bright light.

Status Epilepticus

It is defined as a «stable epileptic condition» with repeated or continuous attacks, which last more than 30 minutes or between which the patient cannot completely achieve his normal mental and neurological condition.

Aetiology

Factors determining the development of the status are various. The status can occur as complication of epilepsy or be its manifestation. The basic reasons of occurrence of epileptic status without previous epileptic attacks are:

- neuroinfections,
- acute disturbance ofcerebral blood circulation,
- brain trauma,
- progressing diseases of CNS,
- intoxications.

Disease Incidence

The epileptic status is encountered with frequency of 18-20 cases per 100,000 people and is one of the most widespread urgent neurological conditions. In 50 % of cases status epilepticus occurs in children of an early age. Among the patients status epilepticus is also more often marked in children (10-25 %) than in adults (5 %).

Classification

The versions of the epileptic status are designated in accordance with the forms of attacks accompanying it. The most known are: the status of convulsive attacks, status of small attacks, status of complex focal attacks, epilepsy partials continua or Kojewnikoff's [cortical] epilepsy, status of myoclonic attacks.

Prognosis

The epileptic status represents a situation requiring urgent help, as mortality connected with it even now can reach up to 30-50 %.

The Epileptic Status Grand Mai

Aetiology

The reasons, more often encountered in adults (cerebrovascular processes, abstinence from alcohol, hypoxic conditions), almost do not play any role in children's age. In children the inherent anomalies of development, consequences of cerebral damages, progressing neurodegenerative diseases, meningitis and encephalitis aetiologi-cally dominate. At newborn in overwhelming majority of cases the statuses are caused by neuromethabolic disturbances, infections, cerebral hemorrhage, hypoxic encephalopathy, and in infancy — acute inflammations and electrolyte disturbances.

In patients with earlier revealed epilepsy the most frequent reason of the statuses is the decrease of concentration of anticonvulsants in blood (a wrong change of therapy, cancellation of anticonvulsants).

Clinical Features

The frequency of convulsive attacks makes up from 3 up to 20 per hour. The basic criteria of the status are the presence of the expressed changes caused by the previous attack and referring to the state of consciousness, breath, hemodynamics. Consciousness by the time of occurrence of the following attack is completely not restored, and the patient remains in the condition of torpor, sopor or coma. At the prolonged epileptic status the following changes occur: the duration of tonoclonic

attacks decreases, coma condition intensifies, spasms acquire a tonic character, hypotonia of muscles is replaced by atonia, and hyperrefle-xia — by areflexia. Haemodynamic and respiratory disorders increase. At last the spasms can completely stop and the stage of epileptic coma starts: palpebral fissures and mouth are half-open, glance is indifferent, and pupils are wide. In such condition death can occur.

Diagnostics

The status has been investigated well enough, and its diagnostics does not cause any difficulties at clinical observation.

Therapy

It is accepted to use a unified stage-by-stage scheme with al-goristic time limits. In the first stage a combined treatment with Diazepam and Phenytoin is applied, which controls the status of large attacks in 85-90 % of cases.

Stage **1** (0-10 minutes). It is necessary:

- to ensure functions of respiration and blood circulation, if necessary — an oxygen probe;
- to define concentration of antiepileptic drug in blood;
- to take temperature.

Stage 2 (30-40 minutes):

- Diazepam — 20 mg (to children 0. 2- 0. 4 mg/kg/body weight) through rectum or slowly intravenously; or Clonazepam — 2mg (to children 0.01-0.04 mg/kg/body weight). It is necessary to take into account a fast beginning of action (5-15 minutes.).
- Immediately after the previous procedure Phenytoin is administered intravenously (to children 10-15-20 mg/kg/body weight), rate of injection — less than 50 mg/min. It is necessary to take into consideration that the maximal effect occurs in 20-30 minutes. At decrease of blood pressure, the occurrence of arrhythmia the rate of injection should be reduced. Frequently the first symptom of intoxication is nistagm.

Stage 3

General anesthesia is applied, for example, with the help of Thiopental sodium which is carried out at the department of intensive therapy (reanimation), or of Nitrous oxide. This procedure should be continued for 12-24 hours after the last attack. It is certainly better to register EEG constantly with the purpose of suppressing attacks.

TREATMENT OF MENTAL DISORDERS

The History of Therapy in Psychiatry

Up to the middle of the XIX century the therapy of mental diseases consisted in mechanical-shock influences. In some cultures a long isolation, influence by pain and fear, methods reminding of physiotherapeutic influences, for example, wet wrapping and treatment by wine (enotherapy) were applied. In Ancient Rome depressions were treated by deprivation of sleep and by entertainments; from times of Hippocrates dietotherapy was applied at epilepsy. In 1845 Moreau suggested to consider hashishism as a model of insanity, and in 1869 chloral hydrate was synthesized and applied first for treatment of manias and depressions, and then of epilepsy. S. Freud suggested cocaine for treatment of depressions, however he refused it in connection with opening narcotic dependence. Nevertheless up to the end of 60s of the XX century tinctures of opium were applied for treatment of depressions. E. Kraepelin and in Russia I. M. Seche-nov have studied the influence of alcohol, morphine and paraldehyde on mentally healthy persons. In 1903 barbiturates were synthesized and began to be applied for treatment of all mental diseases, but in 1922 Jacob Klaesi suggested barbiturate comas for therapy. The given method further developed into therapy by a long sleep.

Julius Vagner von-Jauregg in 1917 was awarded the Nobel Prize for treatment of syphilitic psychoses by malaria inoculations. Manfred Sakel in 1927 at therapy of narcomanias applied insulin shock therapy, which appeared to be effective for treatment of schizophrenia as well. In connection with synthesis of Reserpine (Serpasile) from *Rauvolfia serpentina* Nathan Kline (1953) found out its positive effects at treatment of schizophrenia. Before World War II in Budapest Laszlo von

Meduna applied for treatment of psychoses Pentylenetetrazol (Cora-sol) and Cordiamine (Nikethamide) in doses causing spasms. Medica-mental spasms were applied for therapy of catatonia almost up to 70s of the XX century in the form of inhalations of indoclone. Ugo Cerletti and Lucio Bird under the influence of these works in 1938 suggested electroconvulsive therapy of mental diseases.

The psychopharmacological era began from synthesis in 1950 of Chlorpromazine by Charpentier and Haloperidol by Janssen. The first 20 prefrontal lobotomies for psychosurgery of schizophrenia were performed by Portuguese psychiatrist Egas Moniz in 1936, but soon he fell a victim of the patient operated by him. For this operation Freeman and Watts developed a method of prefrontal leucotomy at which a conductor was introduced by a method of an «ice crow-bar». Tracy Putham in 1940 applied the first anticonvulsant — Dilantine, and in 1949 the Australian psychiatrist John Cade offered lithium for treatment of manic excitement. Albert Hofmann, who synthesized LSD in 1943, assumed that the preparation could be used in psychiatry for stimulation of conditions of schizophrenic defect, though later on it was found out that the dependence was formed on this hallucinogenic preparation.

Last decades therapies of mental diseases were marked by a wave of synthesis of new preparations — neuroleptics, antidepressants and anticonvulsants.

Biological Therapy

Psychopharmacology

At mental diseases a significant polymorphism and instability of the basic molecular processes are found out. Substantial evidence on biochemical changes is gathered. There are their various interpretations.

Psychotropic Agents

These are agents influencing mental functions and changing the system of neuromediators, transmitting nervous impulses from the ending of one neuron to another through synapse. To similar mediators noradrenaline, dopamine (D), serotonin, acetylholine, gamma-aminobutyric acid (GABA), histamine, opioid peptide (endorphins, dinorphins, encefalines), prostaglandins refer.

The axiom is that the clinical action of psychotropic drugs is a result of influence on biochemical and electric processes in the central nervous system (CNS). However psychotropic substances not only change systems of neuromediators, but also affect certain biochemical processes connected with enzymes, receptors, ionic tubules, systems of neurotransmitters and messengers. They participate in mechanisms of release, active back capture; they contact various subtypes of pre- and postsynaptic receptors or their components.

Neuroleptics

The name is connected with the development of neurolepsy owing to taking preparations of the given group. On the whole the concept «a neuroleptic agent» refers to preparations, which have an expressed antipsychotic action and are capable of causing extrapyramidal side-effects.

Preparations of a new line do not cause neurolepsy and are called antipsychotics: Closapine, Risperidone, Olanzepine, etc. Two kinds of antipsychotics are distinguished: typical, causing side-effects, and atypical, not having side-effects.

Some Neuroleptics

Aminazinum (Chlorazin, Chlorpromazine, Fenactil, Propa-phenin, Thorazine). One of the main features of its action is a strong sedative effect on a background of antipsychotic action and influence on emotional sphere. Non-selective effect on dopamine receptors in the

hypothalamus area and reticular formation of the brain is expressed. It affects the central mechanisms of thermoregulation.

The alpha-adrenoblocking effect — hypotension, atropine-like, holinolytic, antihistamine, ganglion-blocking effect are expressed.

Pharmacokinetics: the halflife period is 25 hours. The effect on behavioural reactions of patients is kept up to 4 weeks after cancellation, within several months its metabolites, which may render some influence, are excreted by liver. It intensifies the action of soporific, narcotic, analgetic drugs.

In psychiatric practice it is applied for control of psychomotor excitement, productive semiology in patients with schizophrenia, at chronic paranoid conditions, manic excitation of patients with bipolar diseases, other mental diseases accompanied by excitation, fear.

At application of the preparation extrapyramidal diseases, akathisia can develop. At long intake the following is possible: increase of body weight, disturbance of sleep, general weakness, depressive disorders.

The initial dose is 0.025-0. 075 g/day; average dose - 0.3-0. 9g; maximum dose orally — 1.5 g, intramuscularly — 1.0 g, a single dose intravenously — O.lg, 0.25 g/day.

Thioridazine (Sonapax, Melleril, Thioridasine hydrochloride) by an antipsychotic effect concedes only to Aminazinum. But the antipsychotic action is combined with a calming effect without expressed block, slackness and emotional dispassionateness. It has a moderately stimulating effect. A moderate antidepressive effect is marked. It is most effective at mental and behavioural disorders accompanied by stress, excitation, fear.

Indications: schizophrenia, organic psychoses, bipolar disorders. Doses: minimal 0.05-0.1 g/day, average 0.15-0.6 g/day, for children 0.01-0.04 g/day.

Trifluoperazine (Aquil, Triftazinum, Stelazine, Triphtazine, Trasine) is an effective antipsychotic preparation. A neuroleptic effect is combined with a moderate stimulating effect. A sedative action is manifested at increase of dose. Triphtazine produces a more expressed effect on a productive antipsychotic semiology (delirium, hallucinations) than aminazinum. It is indicated for treatment of schizophrenia, especially paranoid one, other mental diseases proceeding with psychotic semiology and hallucinations, involution psychoses, disorders of a neurotic level.

The dose depends on a way of introduction. Doses are the following: the initial one is 1-5 mg for one intake, average — 30-80 mg/ day orally and 2-8 mg parenterally.

Fluphenazine (Moditen, Dapotum, Lyogen, Moditen, Mirenil). In neurochemical effect a non-selective blocking action of the central dopamine receptors prevails at moderate influence on noradrenergic receptors. It produces a strong antipsychotic effect in combination with insignificant activating effect. A sedative action is expressed moderately and observed at increase of the preparation dose. It is applied at various forms of schizophrenia, especially malignant nuclear ones: hebephrenic, catatonic, paranoid. It is effective at schizophrenia with a long course. In small doses it may be applied at neurotic conditions.

Side-effects: extrapyramidal symptoms are frequently observed, convulsive reactions, allergic phenomena can develop.

Forms of production: tablets (1,2.5 and 5 mg), for parenteral use (a 0.25 % solution) and deposited oil forms (phtorfenazine-dekanoat, moditen-depot — 25 mg in solution).

Clozapine (Leponex, Azaleptinum, Irox) is the first clinically effective preparation with atypical properties. It has an expressed antipsychotic action in combination with a sedative effect. It does not cause general depression of mental activity. It is mainly bound to Dl-receptors. It acts selectively on cortical and mesolimbic systems of dopamine neurons. The non-specific antagonist of 5-HT2-receptors does

not cause extrapyramidal reactions, more widely influences other neurotransmitter systems — of noradrenalin and acetylholin.

It is effective in active and supporting therapy of hallucination, delusion, hebephrenic, catatonic conditions, conditions of psychomotor excitation at schizophrenia, within the framework of bipolar diseases, disorders of personality with conditions of excitation, at affective strain with disturbance of sleep of various genesis. It is a preparation of choice at resistance to treatment by other neuroleptics.

The most serious adverse action is agranulocytosis and convulsive attacks at high dosages (500-600 mg), at taking in the preparation the medicinal monitoring is necessary.

The basic indications for use: the previous unsuccessful attempts of treatment by minimum 3 preparations; the duration of these attempts is more than 6 weeks; use of dosages over or equivalent to 1,000 mg of Aminazinum.

The initial dose of the preparation should make up 25-50 mg/ day with a gradual increase, a therapeutic dose — 300-500 mg/ day, the maximal dose — 900 mg/day.

Olanzapine (Ziprexa) — the characteristics of binding are similar to Clozapine. It is a new antipsychotic preparation of a selective action, without acute extrapyramidal actions in doses up to 20 mg per day. As Clozapine it binds 5-HT- and D2-receptors.

It effectively affects negative semiology and depressions, controls semiology of a psychotic level. Statistically it is considerably better than haloperidol for treatment of patients with schizoaffective disorders.

The basic adverse effects: sedation, hypotension, convulsive attacks.

The minimal dose is 5 mg/day, average dose — 10-20 mg/day, maximal dose — 50 mg/day.

Clopixol (Zuclopenthixol) is an antipsychotic with a specific inhibiting action and nonspecific sedative effect in 2 hours after intake. It is a relatively selective antagonist of dopamine Dl- and D2-receptors.

Indications: schizophrenia, chronic psychoses with delusion and hallucinations, agitation, anxiety, aggression, animosity, mental retardation in combination with psychomotor excitation, senile dementias with paranoid semiology, disturbances of behaviour.

Forms of production — tablets of 2, 10, 25 mg, an average dose — 20-75 mg per day, or 20-60 mg per day during an acute phase of disease and 30-40 mg for supporting treatment. Deposited: Clopix-ol-acufas for treatment of an acute attack (the initial dose is 50-200 mg depending on severity of condition), Clopixol-depot for supporting therapy of the excited patients (150-300 mg i. m. every 2-4 weeks) and Fluanxol-depot for not excited patients (20-40 mg i. m. every 2-4 weeks).

Haloperidole (Haldol, Halidor, Senorm, Trancodol) is one of the most active neuroleptics. It expressively blocks central dopaminergic receptors, less expressively — central alpha-noradrenergic receptors. It does not produce any central and peripheral anticholinergic action. It frequently causes extrapyramidal effects.

This preparation is effective in treatment of psychomotor excitation of various genesis, productive psychotic symptoms, especially of hallucinations. The effect depends on a dose of preparation: from sedative in small doses up to activating and profound antipsychotic effects. In small doses it is used at neurotic and reactive conditions, senile psychoses, tic disorders.

The minimal dose is 0.3-1.5 mg/ day, an average dose — 15-40-60 mg/day depending on features of the disease.

The most essential complications are: extrapyramidal disorders in the form of parkinsonism, akathisia, dystonia. At the beginning of treatment the attacks of psychomotor excitation and convulsive contractions of various groups of muscles may be observed. There may be the phenomena of alarm and fear; sleeplessness is possible. The preparation is contraindicated at diseases of CNS with pyramidal and extrapyramidal semiology.

Trisedyl (Trifluperidol, Triperidol) is a strong non-selective antipsychotic neuroleptic with a strong action. It has an expressed cataleptic effect. It reduces hallucinatory and delusional excitation very quickly. By the ability to control manic excitation it surpasses other neuroleptics.

It is applied at psychoses accompanied by psychomotor excitation, especially for controlling catatonic and hebephrenic excitation, at prolonged attacks of periodic schizophrenia, at states accompanied by a severe depression and delirium. It is administered orally (a daily dose is 2-8 mg) and intramuscularly at chronic diseases with **1**.25-5 mg, then gradually injections are replaced by intake.

Complications and contraindications are basically the same as at Haloperidol application.

Pimozide (Antalon, Norofen, Orap, Pirium) by spectrum of its action is close to Haloperidol and produces an expressed antipsychotic effect. The peculiarity of the preparation is a rather long effect at oral reception. The effect begins quickly; the maximal effect usually develops in 2 hours, lasts about 6 hours and finishes in 24 hours.

It is applied in out-patient setting as a supporting therapy for schizophrenia, paranoid conditions, psychotic and neurotic disorders with paranoid symptoms. It does not produce a psychomotor-seda-tive effect. An average dose is 5-8 mg/ day.

Fluspirilene (Redeptin) is an active non-selective neuroleptic with an expressed antipsychotic effect without expressed sedative action. By spectrum of pharmacological action it is close to Haloperidol. It is effective at hallucination, paranoid disorders, autism. The basic feature of the preparation is a prolonged action. After a single intramuscular injection the effect proceeds about 7 days.

It is applied as a supporting therapy for patients suffering from chronic mental diseases. It is convenient for out-patient intake. It facilitates readaptation and rehabilitation of patients.

An average dose is 2-10 mg once a week.

At application of this preparation extrapyramidal disorders may develop. At long intake the decrease of body weight, general weakness, disturbance of sleep, depression are possible.

Sulpiride (Abilit, Dogmatil, Eglonil, Nivelan, Omperan, Su-prium, Vipral) is characterized as a preparation with a «regulating» effect on the central nervous system. The psychotropic properties include an antipsychotic, analeptic, somnolent, tranquilizing and stimulating effect. It is a specific dopamine D2-antagonist.

It is applied for controlling anxious, anxious-depressive, obsessive-compulsive, neurotic disorders, mental diseases accompanied by flaccidity, inertness, anergy and adynamia. As an activating means it is used at apathy symptoms.

It is usually well tolerated. Pyramidal disorders, excitation, disturbance of sleep, increase of arterial blood pressure, disturbance of hormonal regulation may be observed. It inhibits motor activity of the stomach and opens the pylorus. It produces an expressed antivomiting effect.

The dosage is 100-1,000 mg/day.

Group of modern atypical antipsychotics

Resperidone (Rispolept). It has a selective sensitivity to sero tonin 5-HT2- and dopamine D2-receptors. It allows to use the preparation for controlling not only negative, but also positive symptomatology.

Other indications: tic diseases, mental retardation, disorders of development, mental disorders due to somatic diseases, AIDS, conditions of excitation and aggression at dementias, nervous anorexia, obsessive-compulsive disorders, posttraumatic stressful disorders.

Side-effects at average doses — lactorrhea, oligomenorrhea, hypotension, increase of interval Q-T on ECG.

The effect may start at administration of small doses — 1-4 mg/ day, average doses — 4-8 mg/ day.

Side-effects

The majority of patients tolerate neuroleptic side-effects of a mild degree as dryness in the mouth or tremor. The complications of therapy by antipsychotics do not exceed other kinds of medicinal therapy in severity of complications. The non-specific sedative effect is the decrease of the preparation dose up to optimal. To other side-effects the following refers: hypotension, difficulty of ejaculation, extrapyramidal effects, cardiotoxic action (lengthening of interval Q-T on ECG, arrhythmia, tachycardia, dryness in the mouth, aggravation of glaucoma, retention of urination, constipations and intestinal obstruction; hepatotoxic effect; leucopoenia, allergic skin reactions. The somatic complications occur more often in elderly and weakened patients.

Malignant Neuroleptic Syndrome

It is characterized by muscular rigidity, dystonia, akinesia, mutism, devocalization, agitation. Vegetative symptoms are the increase of temperature up to 41 °C, hyperhidrosis, tachycardia, increase of arterial blood pressure. The toxic rash, increase of permeability of vascular walls, hepatic insufficiency are observed. The probability of lethal outcome is high at the development of neuroleptic syndrome.

Treatment: an immediate cancellation of neuroleptics; cooling of the patient; maintenance of water-electrolytic balance and other vital functions; symptomatic treatment of hypothermia; antiparkinsonic drugs; muscle relaxants; Bromocriptine or Amantadine; big doses of nootropics; hyperbaric oxygenation; hemodialysis, extracorporal hernosorption and plasmapheresis.

Tranquilizers

Tranquilizers are sedatives not changing consciousness. The majority of tranquilizers produce an anxiolytic (eliminating alarm) effect, reduce nervous tension, not influencing other functions of the brain.

Tranquilizers are presented mainly by a group of benzodiazepines, having a somnolent, sedative, anxiolytic, antiepileptic and central muscle-relaxing effect. Benzodiazepines differ from each other in effectiveness, rate of inactivation and excretion from organism.

Alprozalam (Xanax). The basic indications: depressive, neurotic conditions with disturbance of mood, loss of interest in environment, anxiety, disturbance of sleep, depression on a background of somatic disease.

Average doses — 0.5-1 mg/day.

Diazepam (Sibazon, Seduxen, Relanium, Valium) has an expressed spasmolitic, antiepileptic, myo-relaxing (neuromuscular) effect. The effect on vegetative symptoms is specific. It is a preparation of choice at rendering urgent help. It is rather slowly excreted.

Side-effects: weakness, flaccidity, sleepiness in the daytime, headaches and dizziness, allergic skin reactions, ataxia, decrease of libido, paradoxical reactions as increase of alarm, excitation, disturbances of sleep.

Average doses — 5-40 mg/day.

Chlorazepat (Chlorazepam, Tranxene) is a preparation of a benzodiazepine group with a long action. It has an expressed anxiolytic effect, a sedative, somnolent, antiepileptic and central muscle-relaxing action. Indications: the phenomena of alarm, tic disorders, depressive-anxious conditions, alcohol delirium.

Side-effects and contraindications are common for all benzodiazepines.

Average doses — 5-15 mg.

Triazolam has an expressed hypnotic effect. It suppresses the CNS at the level of visceral brain and subcortical areas. It potentiates the action of drugs, alcohol, antihistamine drugs, barbiturates and antidepressants.

It is indicated to patients with insomnia. It does not disturb the rate of motor and mental reactions next day.

The recommended dose is 0.25 mg before bedtime.

Midazolam (Dormicum) is a quickly acting and quickly excreted hypnotic. It has an anxiolytic, antiepileptic, relaxing effect. Accumulation is not observed. It shortens the phase of falling asleep and increases the time of sleep without changing phases of sleep.

Indications: disturbance of sleep, especially disturbance of falling asleep and early awakenings.

Average doses — 7.5-15 mg.

Estazolam mainly suppresses the activity of the limbic system and subcortical area of the brain, potentiates the action of GABA, secondarily blocks cortex activity and cortex-limbic links that provides an expressed somnolent effect.

Indications: a short course of treatment of sleeplessness with difficulty of falling asleep, frequent night and morning awakenings.

An average dose is 1-2 mg/day. Nicotine increases metabolism and excretion of the preparation.

Cvazepam is a strong hypnotic of the central action, influences the limbic and thalamic parts of CNS, binding the receptors responsible for sleep processes.

Indications are as above-mentioned. As the previous preparation, it potentiates the action of alcohol, benzodiazepines, opioids, analgetics with suppression of CNS.

Average doses are 7.5-15 mg.

Zolpidem (Ambien). It does not cause a muscular relaxation, does not have any anxiolytic and antiparoxismal action, is quickly absorbed for 2.2 hours and is bound with proteins of plasma.

Side-effects: it may disturb cognitive functions; non-expressed signs of the cancellation syndrome were observed.

Zopiclon (Imovan, Ivadal). In contrast to benzodiazepines it is bound only to the central receptors and has no affinity with peripheral benzodiazepine receptors. It is well absorbed, quickly causes sleep lasting for 6-8 hours with preservation of a normal phase architectonics of sleep. It does not cause tolerance, syndrome of cancellation.

An average dose: 7.5 mg immediately before bedtime.

Melatonin is sometimes effective at seasonal sleeplessnesses in a dose of 0.3 mg/day.

BuSpar is a derivative of Azapirone. It has clinical properties of a tranquilizer and antidepressant. To a greater extent it normalizes neuronal transmission of serotonin.

Spectrum of clinical activity: an antianxious, antiparoxysmal and expressed sedative effect. It does not cause flaccidity, weakness, does not disturb memory, cognitive and psychomotor functions, and does not interact with alcohol. There are no qualities for abusing the preparation; a stimulating effect is not present.

Bromocriptine is a strong dopamine stimulator. It has an anxiolytic and analeptic effect.

Antidepressants

In psychiatry the following antidepressants are most frequently used: non-selective inhibitors of reuptake of serotonin and noradrenalin, monoamine oxidase inhibitor antidepressants, tricyclic antidepressants, tetracyclic antidepressants.

Amitriptyline (Amitril, Amizol, Elavil, Laroxyl, Tryptizol) is a classical tricyclic antidepressant. It is mainly applied at endogenous depressions with alarm and agitation.

Average doses — 100-250 mg/day.

Klomipramin (Anafranil, Hydiphen, Neoprex) by pharmacological properties is close to Imipraminum, but differs in a stronger blocking influence on reuptake of serotonin. It has an expressed action on the depressive syndrome with psychomotor inertness, alarm. It produces a specific effect at obsessive-compulsive syndrome and chronic painful syndromes. Its advantage is a faster therapeutic action on depression.

A dose increases gradually within 10 days from 10-30 mg up to 50-75 mg. The maximal dose is 250 mg/day.

Melipraminum (Imipraminum, Imavate, Deprenil, Melipramin, Antipress, Tofranil) is the basic representative of tricyclic antidepressants. Simultaneously it is a nonselective inhibitor of reuptake of dopamine, noradrenalin, serotonin. It has an expressed analeptic effect with a stimulating action.

It is applied at depressions of various aetiology with motor and ideational inertness, flaccidity. The preparation promotes the decrease of melancholy, occurrence of vivacity, increase of a mental and general tone. It is effective at a chronic painful syndrome and night enuresis (beginning with the 5th year of life). It promotes the inversion of phase at bipolar disorders.

It is administered from the dose of 75-100 mg/day with a daily increase by 25 mg. An average dose is 200-300 mg/day.

Mianserin (Lerivon). The structure of activity consists of analeptic and sedative effects. By its effect it refers to «small» antidepressants that allows to apply it in general medicine. It reduces alarm, the feeling of internal tension, and disturbances of sleep. According to ability to control alarm and disturbances of sleep it competes with tranquilizers, but in contrast to the latter it does not cause addiction and dependence.

A therapeutic action has four components, which develop gradually. In the first days of intake a sedative action is manifested, within the first week an antianxious action develops. It is indicated for therapy of a climacteric syndrome, vegetative crises, headaches of tension, syndrome of chronic pains, prevention of migraine. It is acceptable to persons of elderly age.

It is administered beginning with 15 mg/day. A therapeutic range is 30-60 mg for a single intake in the evening.

Fluoxetine (Prozac, Prodep) is a classic inhibitor of serotonin reuptake. It is applied at depressions of a neurotic level, including somatoform and dysthymia disturbances, superficial endogenous depressions with apathy.

Side-effects may include allergic reactions, sexual dysfunction.

It is applied once a day or once every 2-3 days in average doses of 20-40 mg in the morning together with food.

Zoloft is a strong selective inhibitor of serotonin reuptake. It is effective at anxious depressions with disturbance of sleep; at somatic depressions with bulimia and increase of body weight; at obsessive-compulsive disorders.

Among side-effects dryness in the mouth, disturbance of ejaculation in men, tremor and hyperhidrosis are marked.

The therapeutic range is 50-200 mg/day.

Cipramil (Citalopram) in vitro is the «standard of selectivity». Its dose is 20-40 mg per day for one intake.

Remeron (Mirtazapine) is similar to classical antidepressants. Indications for application: depressive, bipolar disorders of different degree of expressiveness; chronic disturbances of mood; somatoform disorders; disturbances of sleep. It is applied at accompanying somatic pathology and at elderly age.

Side-effects: sedation in the daytime, increase of appetite and body weight, transient neuropenia, hypogranulocytosis.

The therapeutic range is 15-60 mg/day for a single intake in the evening.

Nialamidum (Nuredal, Espril, Nyazin) refers to monoamine oxidase inhibitor antidepressants.

Side-effects: dyspeptic symptoms, decrease of systolic pressure, sleeplessness, headache, dryness in the mouth, retention of stool, etc.

At administration of Nialamidum it is necessary to take into account the opportunity of development of side-effects connected with inhibition of MAO. It is impossible to administer TCA, other IMAO simultaneously with Nialamidum; a 2-3-week interval before administration of other antidepressants is necessary. To avoid tyramine syndrome during treatment with Nialamidum it is necessary to exclude from a diet the

foodstuffs containing tyramine and other vasoconstrictive monoamines, including cream, coffee, beer, cheese, wine, smoked products.

Average doses: 200-400 mg/day in 2 intakes (in the morning and in the afternoon) for the prevention of disturbance of night sleep. A therapeutic effect begins in 7-14 days. The duration of treatment is individual — from 1 up to 6 months.

Normothymics

To normothymics the salts of lithium, preparations of an Iminostilben group (Carbamazepine) and salts of Valproic acid refer.

Preparations of lithium have the ability to control acute manic excitation and prevent affective attacks.

Lithium carbonate (Contemnol, Lithosun, Quilonium, Lithii carbonas, Plenur, Neurolepsin). Lithium is a stabilizer of cellular membranes. Ions of lithium influence transport of sodium ions in the nervous and muscular cells. The basic indications: manic and hypomanic conditions of various genesis, prevention and treatment of affective psychoses, disorders of personality with affective fluctuations, affective disturbances in patients suffering from alcoholism.

The concentration of lithium in blood plasma amounting to 0.9-1.2 mmol/1 is of therapeutic importance.

Side-effects: tremor, ataxia, general malaise, drowsiness, thirst, dyspeptic phenomena, diarrhoea, disturbance of the heart rhythm, dermatites, disturbance of function of the kidneys, liver, etc.

Usual dosages — 1.5-2.1 g/day.

Carbamazepine (Carbamazepine, Finlepsin, Carbapin, Timo-nil, Tegretol, Zeptol, Epitol, Novocarbamaz).

Preparations of this group are synthesized from Imipramine (antidepressant). The basic indications: various kinds of epilepsy, including temporal epilepsy, diencephalic epilepsy, depressions with rhythm, manias with dysphorias, trigeminies, vegetative dysfunctions, affective disorders, alcoholism, abstinent syndromes, disturbance of sleep.

Preparations of this group are produced in tablets of 200 mg. Retard forms of 200 and 400 mg are available.

Average doses are 600-1,200 mg/day. An analgetic and vegetostabilizing effect occurs at low dosages of 100-200 mg/day.

Volproats are stimulators of the central GABA processes.

Valproic acid and its salts (Na, Ca, Magnesian) are a relatively new group of psychotropic means having the expressed antiepileptic activity. Valproats have an antiepileptic effect and are effective at different kinds of epilepsy, especially at small forms.

Acediprolum (Apilepsin, Convulex, Depacene, Depakin, Depacote, Divalproex, Encorat, Orfiril, Valpakine, Valproate sodium) is an antiepileptic of a wide range of action.

It is applied at different forms of epilepsy: absences, temporal pseudoabsences; at convulsive (big) and polymorphic, focal (motor, psychomotor) attacks.

Volproats produce not only an antiepileptic effect. They improve mood, mental tonus of patients, have tranquilizing properties with decrease of conditions of fear, but without somnolent, sedative and muscle-relaxing actions.

Side-effects: nausea, vomiting, diarrhoea, pains in the stomach, anorexia, drowsiness, allergic skin reactions. The most serious side-actions are disturbances of functions of the liver, pancreas, deterioration of blood coagulability, thrombocytopenia.

A daily dose is 0.6-1.5g. One-time dose is 0.3-0.45g.

Recently new GABA preparations have been created.

Vigabatrine is structurally close to GABA; being an irreversible inhibitor of GABA-receptors, it protractedly increases the level of GABA in brain, decreases the level of stimulating amino acids (Glutamate and Aspartate).

Gabapentine is a cyclic compound, close by structure to GABA, penetrating through a hematoencephalic barrier and affecting the central GABA-receptors.

The preparation Lamotrigine blocking the central stimulating neuromediator amino acids (Glutamate and Aspartate) is of interest. At present it is applied basically for treatment of partial and generalized epileptic attacks, and when other antiepileptic means are ineffective.

Nootropics

Nootropics are a wide circle of medicines, which main features are the improvement of cognitive functions and decrease of sensitivity of brain to damaging factors.

The mechanism of nootropic action is connected with activation of synthesis of phospholipids, stabilization of a cellular membrane, interaction with various neuromediator systems, mainly with GABA.

The basic preparations of this group are Pyracetam and its analogues (Nootropil, Pyramem). To the same group Pyritolum (Pyriditolum, Cerebol, Cogitan, Encephabol Pyritinol), Acephenum (Meclofenoxate hydrochloride) refer, as well as some preparations structurally connected with gamma-aminobutiric acid (GABA) — Aminalonum (CABA, Gammalon), Picamilonum, Natrii oxybutyri-cum, Pantogamum (Calcium homopantothenat, Nopate), Phenibu-tum; preparations of amino acid line — Cogitum; hormonal preparations deprived of hormonal activity — Semax.

Electroconvulsive Therapy (ECT)

The indications for ECT are as follows: catatonias and catatonic-paranoid conditions, depressions and depressive-paranoid syndromes, delirious and obsessive-compulsive disorders, more often within the framework of schizophrenia and affective disorders.

The contraindications are considered to be: severe somatic diseases, disturbances of cardiac rhythm, fractures with insufficient consolidation of bone fragments, severe craniocerebral traumas verified neurologically and on EEG, children's and adolescent age. However, there are indications to positive effect of therapy at malignant neuroleptic syndrome, parkinsonism and decrease of resistance to neuroleptics.

Application of the method assumes consulting the therapist, neurologist, ECG and, if necessary, EEG. The effects of ECT were earlier explained by the fact that schizophrenia and epilepsy were diseases-antagonists, therefore a convulsive attack promoted displacement of productive schizophrenic semiology.

Further several hypotheses appeared: a) at ECT a model of «re-birth» occurs, as well as after any coma or loss of consciousness, b) at ECT a regress to an earlier stage of development of mentality previous to psychosis occurs c) the attack promotes the excretion of endotoxins, d) at the electric discharge there is a short-term deenergizing of structures which are between electrodes, a new consolidation of brain engrams promotes recovery.

On average 6-8 sessions are carried out, sometimes up to 10-15 sessions with intervals of 1-2 days. A session is considered therapeutic, if during it a generalized tonoclonic spasm or its equivalents are achieved at realization of ECT on a background of narcosis and muscle relaxants. The technique of realization depends on a type of device, which may roll out impulses of a certain form and/or a discharge with characteristics of voltage and duration. The average convulsive voltage achieves 90-100 volt at exposition of 0.1 sec, for impulse devices — 80-120 impulses. Sensitivity to the current greatly varies depending on sex and ethnic belonging, as well as morphology of skull and even humidity of air. Premedication is usually carried out by 1.0 ml of 0.1 % atropine subcutaneously 20 minutes prior to session.

Insulinotherapy

Indications to the therapy include: manifestations of productive and negative semiology at paranoid schizophrenia, a simple form of schizophrenia, opiomania. Contraindications are: endocrine and somatic disorders, a high level of convulsive readiness, which may be connected with craniocerebral traumas in the anamnesis. The effect of therapy was connected with: a) transformation of the brain metabolism under the influence of hypoglycemic coma, b) the occurrence of the model of «rebirth», as well as after any coma or disorder of consciousness.

For a course of treatment up to 10-20 insulin comas are applied or the appropriate number of spoors, if the achievement of comas is impossible for somatic reasons. The therapy is applied in several modifications:

- Classical. Insulin is increased daily from 6-8 units subcutaneously by 4-6 units till achieving comas. The duration of staying in hypoglycaemia is from 30 minutes up to 1 hour. The control of torpor is carried out by sugar syrup, and sopor and coma — by intravenous introduction of 40 % glucose. Average coma doses reach 60-80 units.
- Small doses of insulin (6-8 units) are also administered at treatment of neurotic disorders, abstinences and nervous anorexia.
- Forced method. Insulin is introduced in doses, which are increased daily by 10-20 units; controlling is carried out in the same way as at a classical method. Average comatose doses are up to 140-160 units.
- Combination of insulinotherapy and ECT. On a background of 10-20 units in an hour after their introduction ECT is carried out. It allows to decrease a dose of current or number of impulses considerably. • Intravenous drop-by-drop introduction of insulin. Coma sometimes can be achieved at once, but at considerably big doses, especially at subsequent comas (from 160 up to 220 units of insulin), the feature of coma is its remittent character.

Complications of insulinotherapy are connected both with drawbacks of patients' preparation for the procedure and with occurrence of deferred or lingering comas.

Deprivation of Sleep and Long Sleep

The method of treatment by deprivation of sleep is indicated for therapy of depressions in patients for whom antidepressants are contraindicated. Contraindications are absent. It consists in deprivation of sleep for 1-2 nights and days. In this period the patient is busied aiid entertained. Morning walks arc recommended. The method is more effective if applied in group and in a specialized clinic.

In the following stage the transition to the therapy by long sleep on a background of barbiturates, tranquilizers, or with the help of devices of electrosleep or electrohypnosis is possible. At therapy of depressions the treatment with oxide nitrogen is applied. There are 6-8 sessions for a course. The degree of narcotization should correspond to the second stage of narcosis, the duration of session is 15-20 minutes.

Mechanotherapy and Therapy by Occupation

Though mechanotherapy is most likely of historical interest, a positive effect on patients with negative semiology at schizophrenia and depressions, as well as at children's autism of rotation and rolling was described. It is connected with activization of fron-tocerebellar communications. After these manipulations for 10-15 minutes the motor tranquillization is marked. The procedures are repeated daily within 10-14 days. The therapy by occupation assumes the involvement of patients in labour processes, which, depending on tasks, may be stereotyped, creative or connected with dynamic attraction. This problem in the

former USSR was carried out by medical-labour workshops, rehabilitation centres. Since the 60s the association Richmond Fellowship International has created a worldwide network of establishments *Half way house* (halfway home). In these houses designed for 5-10 persons the patients have rehabilitation and therapy by occupation under the supervision of specially trained personnel.

Psychosurgery

Psychosurgery in treatment of mental disorders has strict restrictions; it is used for therapy of epilepsy. Indications are: a) exact localization of the focus in the absence of mirror and additional foci, b) absence of changes of personality, c) inefficiency of antiepileptic preparation therapy in the course of at least 3 years.

Psychosurgery is also applied for treatment of Huntington's chorea, for example, in the form of cryogenic influence on thalamic structures or globus pallidum

At therapy of Alzheimer's disease liquorshunting (craniolymphatic, craniofascial and cranioperitoneal) is applied; these operations are also effective at many current organic processes of the brain. There are indications to positive effects of implantation of embryonic tissues in substantia nitra at Parkinson's disease. It also appears that the intensive bilateral ECT by its effects is very similar to the effect of psychosurgery on chronic excitation in its classical variant — prefrontal leucotomy.

Hormonotherapy

At treatment of Alzheimer's disease Somatotropin is applied, and at therapy of depressions — thyroid hormones. Usually Triiodothyronine or Thyroxin is used in those patients who have contraindications to antidepressants. Average doses correspond to 25-50 meg. For treatment of epilepsy ACTH is applied in doses up to 1-20 units/day, and at therapy of anorexia — anabolic hormones (Nerab-ol, Retabolil). There are also descriptions of stimulation of short-term memory and therapy of opioid abstinences by Oxytocin in doses up to 2.0 ml/day. At therapy of depressions an epiphysial hormone Melatonin is applied, at dementias resulting from hypophysial insufficiency — complex hormones of hypophysis and somatotropin.

Pyrotherapy and Craniohypothermia

The increase and decrease of temperature produce a nonspecific effect on the increase of reactance of organism and are also applied at abstinences and some neuroses. For pyrotherapy the solution of sulfur on peach oil, Pyrogenal are applied. Craniohypothermia is used after craniocerebral traumas to control abstinence. The decrease of temperature of brain by 0.1 degree is achieved with the help of a .roling helmet at decrease of a body temperature by 2 degrees on a background of tranquilizers.

Dietary and Hypervitamin Therapy

The traditions of dietary therapy of mental disorders go back to the times of Hippocrates. At therapy of epilepsy a waterless diet (restriction of free liquid up to 250 ml per day), a saltless diet, a diet with the use of beer yeast with vitamin B, a ketogenic diet are described. The latter diet provides the replacement of all animal and partially vegetable proteins with the fat beef or the beef fat. The dosage of Ketogen depends on age. A stimulating effect of spicy and sour-milk food allows to recommend it at asthenic and hypochondriac conditions; on the contrary, at conditions of alarm it is contraindicated. The significant attention to diet and quantity of taken liquid is paid at abstinence. At treatment of dementia, especially atrophic dementias, and stimulations of intelligence in children a hypervitamin therapy is applied. Thus, doses of vitamins (B_6, B_{12}, Bj) are introduced, sometimes exceeding average doses by 1.5 times.

For treatment of schizophrenia, prolonged depressions and neuroses medical starvation for about 3 weeks was used. During

starvation patients received alkaline mineral waters, and on outcome from starvation — juices and vitaminized solutions. At starvation the patient passes the stages of food excitation, compensation and stabilization. The method demands attention, as the decrease of food instinct in 2 weeks after the beginning of starvation is possible.

Phototherapy, Physiotherapy and Ecological Therapy

Phototherapy is applied for treatment of depressions; it is especially effective in northern latitudes (northern depression). For treatment the powerful installations of a daylight illumination of 10,000 lux are used. The patients stay near the installation about 30 minutes, in front of the installation of smaller optical efficiency they stay for several hours.

In modern physiotherapy series of techniques having a tranquillizing and stimulating effect on the CNS are developed. Usually they are more effective in combination with sanatorium-and-spa treatment. The idea that mental patients should avoid sanatoriumand-spa therapy is mistaken. It concerns only periods of acute psychoses, that is, about 5 % of all patients; for the rest patients sanatori-um-and-spa therapy is not contraindicated, but should be carried out under the control of the psychiatrist. A positive effect of mineralized thermal waters is known at anxious and anxious-phobic disorders, applications of therapeutic muds to vegetative plexuses — at depressions. Patients should also be given recommendations about resorts, which they might visit.

Moving patients suffering from depressions to the south is known to have a favourable effect on them, but it aggravates manias. Moving to the north makes attacks less frequent at epilepsy. It is experimentally established that moving to stress conditions of high mountains and to the area of high pressure of oxygen (hyperbaric oxygenation) has a positive effect at negative schizophrenic semiology. Daily stay in water for an hour is indicated at Rett's disease, and taking baths before going to sleep has a favourable effect at all neurotic diseases.

Detoxication

Among methods of detoxication intravenous infusions of various liquids (Haemodez, Reopolyglucin, mixtures of amino acides, 5% vitaminized Glucose), hemosorption, plasmapheresis are applied. They are effective at overcoming resistance to psychotropic means, in complex therapy of depressions and schizophrenia, but particularly — at treatment of narcomanias and alcoholism at stages of abstinence.

Psychotherapy

Psychotherapy may be considered as the most ancient science; it probably exists more than 4000 years. The term «psychotherapy» was offered by Walter Cooper Dendy in 1853 in his book «Psycho-therapeia, or the Remedial Influence of Mind» (J. Psychol. Med. Ment. Pathology, 6,268,1853), though the first complete system of psychotherapy was offered by J. H. Henroth in 1818. Influence on soul goes back to the most ancient shaman ceremonies, and later to mysteries in systems of cults of Demeter (for example, Eleusinian mystery), Mitre, Dionis and some mysteries of the East, for example, India, China and Thailand. In the mysteries and their earlier analogues — trance-dances the influence of singing, dance, rhythm, verbal effect, touch were integrally combined. Later on this tradition in Europe fell into two opposite lines.

The line of Apollo assumed rational, logic influence on persons during dialogue, for example, Platonic dialogue. It called into being the forces of senses and logic, which were called to struggle with illness. The Apollo Platonic tradition is obviously seen in all lines of psychotherapy close to psychoanalysis.

The line of Dionis assumed irrational, hedonistic and orgy address to feelings. It is achieved by changed consciousness which occurs, for

example, at Socratic dialogue, intake of a psychoactive substance, long dance, fixation on body.

The eastern practices Zen, Confucianism, yoga, practices of religious solitary life of other religious trends have brought meditation, self-absorption and projections of soul outside a body to the influence on spiritual life. Though at present more than 40,000 variants of psychotherapy exist which present almost 140 trends, all of them have sources in high antiquity. Modern theological interview in Christianity, Islam, Judaism, Buddhism has a whole set of psychotherapeutic practices — from consolation up to a stress refusal of joining to sacrament, for example, communicating. These methods are extremely effective for believers and, probably, those patients in whom faith has not grown stronger yet or has been shaken, require other, scientifically grounded methods. In this connection some confessions reject a psychotherapeutic practice in general. Others recognize it partially.

In biological sense all methods of psychotherapy occur from the system of relation of mother (father) and child. At these relations support, punishment, attraction and aversion with the general positive contents, which may be determined as love, are genetically present.

There is a set of modern definitions of psychotherapy. The most comprehensive one is the treatment of patient's soul by the influence of doctor's soul on it. From the definition it follows that the culture in which the psychotherapeutic influence takes place and the spiritual orientation of the doctor are of great importance. From the point of view of a positive science the psychotherapy represents a theoretically proved system of methods of medical influence on patient's mentality, and through mentality — on the whole organism. This system is based on the knowledge of pathogenesis of morbid conditions and methods of influence on mentality, allowing to achieve the necessary medical effect. Nevertheless many psychotherapists emphasize that a symptom and all the more diagnosis are not essential for them, but the personality of patient is more important.

Methods of influence on mentality consist in adaptation of the patient, as he is, to the environment, in which he lives. Frequently it is impossible to change this environment. In that case something in the soul of the patient may be changed, and it leads him to a new environment, which is in compliance with his new spiritual world.

Hypnotherapy

Hypnotherapy is a method of psychotherapy based on application of suggestion in hypnosis. Classical hypnosis refers to a directive psychotherapy, Eriksonian — to a non-directive one. Application of hypnosis is authorized only for the medical purposes and may be carried out only by specialists with medical education.

In 1843 J. Braid separated hypnotism from animal magnetism and began a scientific investigation of hypnotic phenomena, however hypnotic phenomena have been applied to influence experiences and behaviour of person since high antiquity. Hypnosis is regarded as a special alternating condition of consciousness distinguished both from wakefulness and from usual sleep by the fact that rapport is possible in it, *i. e.* a verbal contact between the hypnotist and the recipient at decrease or full absence of sensitivity to other external stimuli. At carrying out hypnosis in a large group suggestibility increases due to induction; for this reason the collective sessions are not recommended because in this case the opportunity to control the behaviour is absent. The method of classical hypnosis consists in the following: after tests on suggestibility in the state of relaxation with the help of verbal formulas directed at stirring the condition of flaccidity, weight, somnolence and sleep, the patient is plunged in a phase condition of consciousness. On a background of a hypnotic condition the verbal formulas of hypnotist depend on therapeutic tasks. For example, aversive formulas are used at therapy of diseases of dependence, relaxation formulas — at conditions of alarm.

Depending on depth of a hypnotic condition the following stages of hypnosis are distinguished:

1 stage. Hipotaxy is characterized by somnolence, feeling of heaviness of extremities and pleasant warmth and rest, absence of posthypnotic amnesia.

2 stage. Catalepsy — a slight sleep, cataleptic manifestations, anesthesia, analgesia, narrowing of rapport up to perception of only the doctor's words, absence of posthypnotic amnesia.

3 stage. Sleepwalking — a deep sleep, full selectivity of rapport, realization of suggestion of hallucinations, complex experiences, posthypnotic suggestions, amnesia.

It is marked that for realization of medical influences in the condition of hypnotic sleep it is absolutely not necessary to plunge into a hypnotic condition. Already at first stages of depth of hypnotic sleep the suggestion is well perceived and realized. This principle underlies the non-directive hypnosis developed by M. Erikson, achieving medical effect at superficial, not deep hypnotization.

In the majority of patients irrespective of method of hypnotization the depth of hypnotic sleep increases with each subsequent session.

Indications for the method are all boundary mental disorders, mild depressive episodes, disturbances of speech, neurotic enuresis, though the effects of hypnosis are described even at epilepsy.

Contraindications are acute psychoses, schizophrenia, moderate and deep depressive and manic episodes at affective disorders, dementias and mental retardation. The number of sessions varies from 2-3 up to 10.

Psychoanalysis

It is a method of treatment of neurotic disorders based on revealing and interpretation of unconscious meaning of words, acts and products of imagination (dreams, fancies), and also symptoms of mental and somatic disorders. After the creation by S. Freud of classical psychoanalytic method at the beginning of the XX century tens of modifications of the method appeared within the framework of majority of analytical schools. The most significant schools of psychoanalysis are deep psychology by K. G. Jung, schools of A. Adler, W. Reich, group analysis, and also the so-called postmodernist schools connected with J. Lacan.

The basic statements of psychoanalysis recognized by all schools consist in the following:

- a leading role in human behaviour, in his emotional life is played by the unconscious. The unconscious contains the initial instinctive energy of desires, affects, and also motives superseded from consciousness owing to their unacceptability or undesirability (cultural or traumatic unacceptability for the subject). The unconscious is charged energetically, that is, all superseded motives aspire to satisfaction.
- Consciousness is understood not only energetically, but also dynamically, that is, it develops in ontogenesis and connects a person with objects of his desires, and also topographically. The topography of consciousness differs at different schools, but as a whole the existence of the deep unconscious (it), actual consciousness (Ego) and sphere of control (Super-Ego) is admitted.
- Drivings of the unconscious contradict the norms of culture. A social norm is a bridle, which is put on them by society and culture and thus makes coexistence of people possible.
- The balance of drivings and cultural requirements is established with the help of protective mechanisms of mentality.
- The cause of neurotic disturbances, anomalies of behaviour and drivings consists in disturbance of the balance between the unconscious drivings and cultural requirements as a result of inefficiency of protective mechanisms, and also as a result of disturbances of ontogenesis of psychosexuality.

The primary goal of psychoanalytic therapy is the indication to the patient (analysant) of ways of comprehension of non-realized processes. This process makes him free and devaluates symptoms. Realization is achieved by interpretation. As an object of interpretation the symptoms, dreams, products of creativity, free associations, imaginations, erroneous actions (slips of the pen, slips of the tongue, mistakes of memory), facts of ordinary life, speech of analysants act. Psychoanalysis may be considered as special pedagogy, as by his interpretations the analyst teaches the analysant to choose a correct way of explanation and clearing up his experiences. The basic points of application of analysis are the interpretation of transfer, resistance and so-called objective relations, which develop in analysant with the sources of his drivings. The psychoanalytic practice assumes sufficient intelligence of the patient and extensive knowledge of the analyst in the field of psychiatry, psychology, sexology, ethnography, history of culture and physiology.

The classical psychoanalytic method tries to maximally exclude the emotional contact of the analyst with the patient; the analyst aspires to be a «mirror» for the analysant. Modem methods of analysis assume democratic, partner relations in analysis.

Indications for psychoanalysis are boundary disorders, diseases of dependence, disorders of personality and paraphilias.

Contraindications are mental retardation, schizophrenia, other acute psychoses, organic disorders and epilepsy. The duration of psychoanalysis may vary from several months up to 2-3 years. Of all psychotherapeutic methods psychoanalysis is the most toilful, but its effects are steadiest. Psychoanalysis is not limited to medical problems and is applied for psychological correction, development of successful political, economic, social strategy of the individual and whole groups.

Behavioural Psychotherapy

The basis of the behavioural therapy is the ideas of physiology of reflexes. According to them, the correct or wrong behaviour is caused by training, *L e„* the directed influence of environment. The formation of correct behaviour means the development of new reflex associations. The modern behavioural therapy has the following features.

The therapist teaches patients to react to vital situations in such **a** way as they would like to react to them, i. e., therapy does not try to change the emotional essence of relations and intentionally ignores the feelings of personality. Behavioural therapy is engaged in a symptom, but not in a problem standing behind it. As a matter of fact it is a symptomatic psychotherapy. The main thing in the work of psychotherapist-behaviourist is the change of patient's behaviour. A negative but not positive stimulus serves as a regulator of this change. It is of paramount importance.

A person is understood by psychotherapist-behaviourist as a sum of patterns of behaviour. Each behavioural reaction is based on the genetic code and previous experience. That is, a harmonious, healthy person is characterized by a maximally wide set of behavioural reactions which are a response of the person to various influences of environment manifesting the most successful adaptation.

The basic concepts of behavioural therapy are conditionality and reinforcement.

The reactive conditionality is a reflex behaviour. The organism automatically responds to stimulus, for example: the pupil always dilates in darkness. **I.** P. Pavlov discovered that the direct stimulus may be conditioned, provided that these stimuli were many times combined: the saliva is excreted not at a sight of food, but at a bell ringing. Conditioned reflexes are easily formed, but also easily disappear. The operant conditionality underlies training. By encouraging or punishing it is possible to receive a certain stereotype of behaviour. The operant conditionality is a certain organization of the world in which the person will do something that will affect the world, and this, subsequently, will affect the person.

The reinforcement is any stimulus increasing the probability of certain (beforehand programmed) reaction. The reinforcement may be both positive and negative. Positive and negative stimuli form and regulate behaviour. The basic positive reinforcements are money and food; and pain, fear and hunger are the basic negative reinforcements. Further it was shown that in a person a strong stimulus of reinforcement was also a word. Therefore, on the one hand — power, glory and on the other hand — fear, humiliation join the basic reinforcements.

According to behaviourism, the majority of explanations of behaviour have a fictitious character, i. e., it is explained not by true but by false causes. Such fiction is, for example, autonomy from influences of the environment, which is actually fabricated by social institutions as special behaviour occurring under the directed influence of stimuli. Fictions are the concepts of freedom, dignity, creativity.

The feeling of freedom is not freedom yet. Moreover, the repressive methods of management of behaviour are possible just when they are intensified by the feeling of freedom, in other words, are not controlled and limited. The person, by analogy with posthypnotic behaviour, carries out «another's program of actions», being sure that he does everything deliberately and at own will. «Dignity» (reputation, opinion, praise) is a conditional estimation supporting the necessary social behaviour. «Creativity» is a product of genetic history and environment, which also exists as a reflex, which realization brings satisfaction similar to that got by «a hen when it lays an egg».

The task of behavioural therapy is management of behaviour with the help of changing the environmental stimuli. At the same time consciousness is a «black box». It is known, what stimuli influence it and what we get on outcome, but it is not essential, what occurs inside the «box». The systems of reflex behaviour are not realized and work automatically; they develop under the influence of training in childhood, in concrete culture. Testing this system is carried out on the basis of observation of behaviour.

The basic methods of behavioural therapy are variations of the following.

Systematic desensibilization is a method directed at the development of association between an undesirable symptom and usually positive, relaxing reaction. In general it looks as follows. The patient speaks about his alarm or fear. Then he is taught to relax. In this condition he again speaks about the symptom. Repeating this procedure several times, it is possible to achieve the association of fear, alarm with relaxation, which eliminates the symptom. Sometimes relaxation is intensified by tranquilizers. Fear may be ranged from weak to strong. For example, a child is afraid of a dog; the ranging occurs in the following way: weak fear is the image of a dog, strong fear — a real dog. As a result of this method a stressful situation associates in the patient with a muscular relaxation instead of tension. Having come across anxious circumstances in real life, the person should now react to it not by fear but by relaxation

Implosive therapy passes round all these stages of systematic desensibilization and at once throws a person into imagined situation in its most frightening form. Having placed the patient in the worst for him conditions, the therapeutist causes in him the internal «explosión» of alarm to which the organism after repeated collisions with the situations causing panic should get accustomed down to complete disappearance of alarm. For example, at fear of sharp objects the behavioural therapeutist M. Rossner asks the patient to clean tomatoes with a blunt knife.

Aversive therapy is used in cases with antisocial behaviour or at habits harmful to organism (smoking, alcoholism, bulimia). This method represents a combination of unpleasant, aversive influence with a situation, which is usually enjoyed. For example, the patient gets an electric current rush when takes a glass with alcohol to the mouth. More

often the taste and smell of alcohol associates with nausea, vomiting, unpleasant sensations behind the breastbone.

Operant methods are used, mainly, for the development of desirable behaviour in children suffering from various disordrs or mental retardation. In a number of clinics patients with schizophrenia are thus «re-educated».

Method of formation of behaviour requires a careful analysis of patient's habits that allows choosing the most effective compensation for him (sweets, permission to watch TV, social reinforcement, verbal encouragement) with which help the appropriate behaviour will be developed in him.

Method of accumulation of counters (counter economics) is used, mainly, in psychiatric institutions. The behaviour is changed by giving privileges for any improvement stated by therapist. If the patient cleans his teeth, makes his bed, he receives a plastic counter; at their accumulation privileges are given: cigarettes, additional food.

Therapy with presentation of model. This approach is based on the fact that alarm of the patient should disappear, if he observes and simulates the behaviour of the therapist or somebody else, who easily copes with the situation difficult for the patient. Such therapy is used for treatment of phobias. There is also a behavioural training at which proper responses are set and the patient is expected to repeat them most exactly.

Procedures of self-checking are operant methods which have appeared recently. In contrast with the counter method, the patient himself rewards himself for any behaviour appropriate to the desirable purpose. The person himself controls the environment creating situations most favourable for the desirable behaviour.

Rational Psychotherapy

It is more correctly to call it reasonable as the method is based only on logic. The basis of rational psychotherapy is a concept about mental disorder as consequence of incorrect understanding by the patient of reasons and clinical manifestations of morbid conditions, caused by lack of information or its incorrect estimation. The basis of therapeutic influence is explanation and logic argumentation.

Stages of therapy:

- Search of a logic mistake in statements and behaviour of the patient.
- Training to logic solving the problems:
  - o training, imparting knowledge, facts, formulation of home assignments (for example, 5 tasks for solving household problems;
  - o the logic task which is based on the laws of logic, relationships of cause and effect, for example: all people (S) — breathe (P) - I (N) - the person (S) - I (N) - I breathe (P). The scheme: all S are P, N - S, N - P.

The similar scheme may be rationally understood in patients with bronchial asthma or phobia.

- Correction of logic mistakes:
  - o statement of problems similar to erroneous judgement of the patient;
  - o then the patient should prove this or that item in his logic reasoning, that is, the patient should dare answer himself. Sometimes, primarily, it is possible to go down to the level of patient's judgment, temporarily to agree with him, but then to give him the task, after which fulfilment he begins to doubt and will declare himself about his mistake.
- Work with affective thinking.
- Analysis of mechanisms of disease.

Thus, the core of rational psychotherapy is a correct, cogitable to the patient, interpretation of the character, reasons and prognosis of disease that promotes the formation in patient of adequate attitude to disease.

The rational psychotherapy may be carried out independently or be included in a complex of therapeutic actions. Quite often the rational therapy is applied already during the first meeting of the doctor and the patient at discussion of complaints and internal picture of disease.

Gestalt- Therapy

It originates from the German word *gestalt* - an image, form having tendency to completeness. The method was created by F. Perls (1917). The basic thesis of Gestalt-therapy is that tendency to integrity, completeness is peculiar to mental activity. This property of mentality is clearly illustrated by features of perception. When we look at a square and a triangle, we see them, but not just several angles: due to mental activity the image is completed up to the whole. For this reason we see not the sum of qualities but integrated objects.

The tendency of mental activity to completeness is also manifested by the fact that incomplete action and unperformed intention leave a trace in the form of tension in the system of mentality. This tension aspires to become less tense (in a real or symbolical aspect). The coi^sequence of the preserved tension is, for example, the effect of uncompleted action, which consists in the fact that the essence of uncompleted action is remembered by the person better than the essence of a completed one. Owing to the same rule an adult person may suddenly buy a toy for himself which he wished to buy in childhood.

Absence of integrity, completeness causes tension, the internal conflict, neurosis. Thus, for example, a person who has lost a relative, frequently experiences the feeling of fault in respect of the died, depression or despair, because nothing can be returned and corrected. The fact is, in mutual relations of relatives there is always something untold, unclear, postponed for «later». From the point of view of Gestalt-theory all these intentions, which suddenly lose an opportunity to be fulfiled, play a significant (if not main) role in genesis of depression and despair.

Sometimes harmony, stability of the person may be disturbed because of the conflict of opposite tendencies inside him. Oppositions always exist in mental life of person: he may simultaneously adore a relative and feel irritation concerning some of his qualities; may experience joy because of graduating from institute, and sorrow because his student life has finished. In case of harmonious development the oppositions supplement each other, imbue the emotional life with shades. But when the opposite feelings start «fight» inside the person, he experiences the feeling of fault, helplessness, become passive, depressed, unable to take a decision. For example, the conflict between the desire and call of duty may look as follows: a young man wants to live separately from his parents, but does not dare to tell them about it. The internal voice of duty as if says, «You should stay at home, you know, how your parents need you». But at the same time the internal voice of desire answers, «But I want to be in-dependent». The similar internal dialogue may proceed indefinitely, the decision is not taken, the situation seems desperate.

The purpose of Gestalt-therapy consists in helping the client to realize the available conflict or tendency and to restore the lost integrity, completeness. Gestalt-therapy may be individual or group. The methods borrowed from psychodrama are more often used (the vital situations having personal sense for the participants are modelled by the dramatized methods; clients act as «actors»). The conflict is brought to the external plan and thus consciousness is taken under control; the situation of incompleteness may be played symbolically.

Indications for therapy are diseases of dependence, boundary disorders; contraindications are acute psychoses, schizophrenia, epilepsy and mental retardation. Gestalt-therapy is also applied in mentally healthy persons at solving problems of psychological adaptation and social successfulness.

Psychodrama

This is a method of group psychotherapy at which a man is offered a role of a hero in the play, which contents is concentrated on

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The tendency of mental activity to completeness is also manifested by the fact that incomplete action and unperformed intention leave a trace in the form of tension in the system of mentality. This tension aspires to become less tense (in a real or symbolical aspect). The consequence of the preserved tension is, for example, the effect of uncompleted action, which consists in the fact that the essence of uncompleted action is remembered by the person better than the essence of a completed one. Owing to the same rule an adult person may suddenly buy a toy for himself which he wished to buy in childhood.

Absence of integrity, completeness causes tension, the internal conflict, neurosis. Thus, for example, a person who has lost a relative. frequently experiences the feeling of fault in respect of the died, depression or despair, because nothing can be returned and corrected. The fact is, in mutual relations of relatives there is always something untold, unclear, postponed for «later». From the point of view of Gestalt-theory all these intentions, which suddenly lose an opportunity to be fulfiled, play a significant (if not main) role in genesis of depression and despair.

Sometimes harmony, stability of the person may be disturbed because of the conflict of opposite tendencies inside him. Oppositions always exist in mental life of person: he may simultaneously adore a relative and feel irritation concerning some of his qualities; may experience joy because of graduating from institute, and sorrow because his student life has finished. In case of harmonious development the oppositions supplement each other, imbue the emotional life with shades. But when the opposite feelings start «fight» inside the person, he experiences the feeling of fault, helplessness, become passive, depressed, unable to take a decision. For example, the conflict between the desire and call of duty may look as follows: a young man wants to live separately from his parents, but does not dare to tell them about it. The internal voice of duty as if says, «You should stay at home, you know, how your parents need you». But at the same time the internal voice of desire answers, «But I want to be independents The similar internal

dialogue may proceed indefinitely, the decision is not taken, the situation seems desperate.

The purpose of Gestalt-therapy consists in helping the client to realize the available conflict or tendency and to restore the lost integrity, completeness. Gestalt-therapy may be individual or group. The methods borrowed from psychodrama are more often used (the vital situations having personal sense for the participants are modelled by the dramatized methods; clients act as «actors»). The conflict is brought to the external plan and thus consciousness is taken under control; the situation of incompleteness may be played symbolically.

Indications for therapy are diseases of dependence, boundary disorders; contraindications are acute psychoses, schizophrenia, epilepsy and mental retardation. Gestalt-therapy is also applied in mentally healthy persons at solving problems of psychological adaptation and social successfulness.

Psychodrama

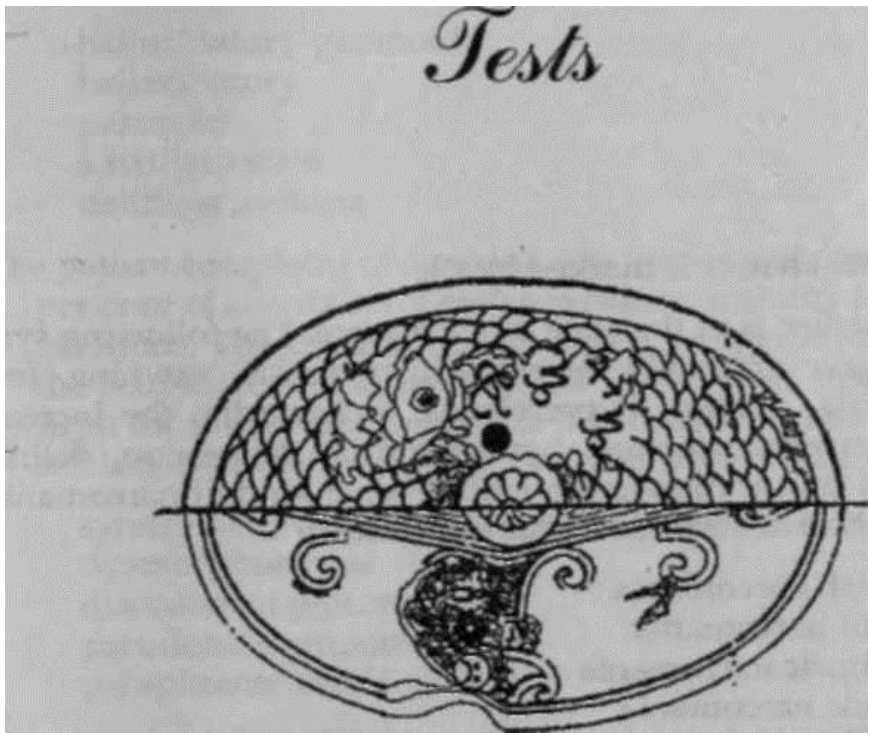
This is a method of group psychotherapy at which a man is offered a role of a hero in the play, which contents is concentrated on

his problems. Other participants of the session are offered the role of characters of his real life, and some - the role of observers, who compare the events on the stage with own difficulties.

The purpose of psychodrama is to disclose to the patient his most deep emotions in a much brighter and effective form than other methods based on a simple verbal description of experiences allow to do it.

Social therapy

This is an approach, which purpose is not only to give the patient an opportunity to understand himself better, but also to adjust harmonic relations with others (relatives, colleagues). The social therapy is carried out as a structured communication in groups of growth and in the form of family psychotherapy.



Questions in Psychiatry and Narcology for KROK-2 exam

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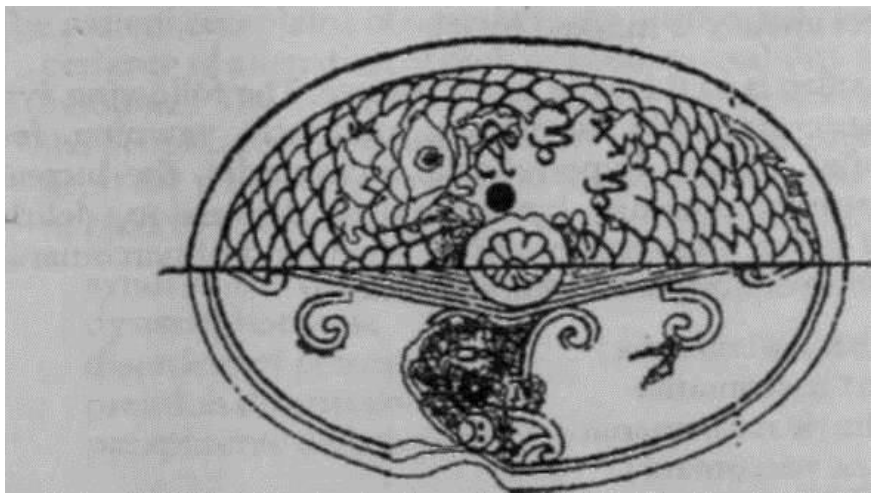

Questions in Psychiatry and Narcology for KROK-2 exam

A correct answer is marked by (*).

1. A narcomaniac is in the state of abstinence. The following symptoms have gradually developed: mydriasis, yawning, fever, dysphoria, tremor, hyperreflexia, tachycardia, the increased blood arterial pressure, hypochondria, depression, delirious ideas of prosecution and relation. What kind of narcomania is this picture of abstinence characteristic of?

hashish narcomania * opioid
narcomania barbituric
narcomania cocaine
narcomania ephedrine
narcomania

2. The patient complains of unpleasant sensations which occur in different parts of her body and internal organs, and sometimes of "very distressing sensation of tightening, torsion, inversion". She repeatedly addressed the doctors, was examined in therapeutic clinics, after that she was referred to the psychiatrist. Define the type of a psychopathologic disorder.

cenestopathies*
synesthesias
paresthesias
hypochondria
depersonalization

3. The patient has been delivered to the reception ward of the mental hospital. The reason of hospitalization is aggressive behaviour

in relation to the relatives. At interrogation he informs that the members of criminal organization "irradiate him" with a new kind of irradiation, he hears their voices which order him not to betray their intentions. The "voices" sound inside his head. During the conversation these ideas do not yield to correction. He explains hospitalization by malicious intentions of his relatives. Determine the syndrome of the disease.

hallucinatory-paranoid *
hallucinatory
paranoid
a twilight state
delirium tremens

The patient complains of an extremely unpleasant condition of experience of alienation of own sensations, inability to experience emotions. The environmental objects are perceived as unreal; the people seem two-dimensional "cardboard" figures. It is difficult for the patient to explain his condition to others; he does not feel to be really existing. Define this mental disorder.

syndrome of derealization and depersonalization*
dysmorphomania
disorders of perception
pseudohallucinations
paraphrenic delusion

The speech of the patient is inconsistent, his statements are lacking in logic connection. The sense of his statements is torn off the reality. To the question "How have you been admitted to the hospital?" he gives the answer: "Through the door". Determine this mental disorder.

formal thinking*
sliding
gallop of ideas
sluggish mentality
oligophasia

A patient aged 21 is afraid to be infected with own excrements, therefore he "prepares" for the act of defecation, and after that he uses a lot of toilet paper and washes his hands too long. The whole day he is engaged only in it, he is not interested in anything else, has ceased to study, has become indifferent to the environment. He is groundlessly convinced that he is falling ill. Determine this mental disorder.

delusion-like ideas with obtrusiveness* delusion-like ideas with supervaluable ideas anancastic syndrome
hypochondriac syndrome Cotard's syndrome

7. A patient aged 50, on a background of euphoric mood speaks about *Или* "construction of a bridge from Shepetovka up to Australia, across which the rabbits will pass, which he will resell to Australians at the price of 1 hryvnya, and then he will buy barrels with diamonds". He calls himself "generalissimo of the whole world", asks the doctor "two hryvnyas to buy mixed fodder for his rabbits". Specify, what diseases such delusions combining the ideas of greatness and absurd are most typical of.

progressive paralysis*
cerebral atherosclerosis
schizophrenia
alcoholism
maniacal-depressive psychosis

8. The patient has a sad expression of the face; her thinking is slug-

gish. She complains of the depressed mood, decrease of working capacity, loss of appetite. The ideas of own inferiority, hopelessness of the vital situation and pessimistic prognosis for the future prevail. Define the mental disorder.

depression*
apathy
asthenia
dysphoria
amnesia

9. Patient M. has been delivered to the reception ward of the mental hospital. Lately he has been exited, talkative, has sung at work, read verses, given '^guidelines" to the authorities of the enterprise. On examination: his mood is raised, he interrupts the doctor, jokes, laughs. He speaks quickly, with a hoarse voice, frequently changing themes, rhyming words. He tends to overestimation of his abilities and opportunities. He considers himself "an excellent specialist", master "magical hands", "the first expert of the country". He asks for permission "to sing something" and begins to sing loudly, dance. Determine the psychopathologic disorder.

maniacal condition* paraphrenic
syndrome alcoholic intoxication
hysterical disorder of personality
catatonic excitation

10. An elderly patient is externally quiet, affable, neatly dressed. In free time she watches TV. Watching a serial, she expresses her ideas emotionally, makes comments, cries, feeling empathy with the heroes of the film. She prepares long for meeting her relatives, waiting for them, but having met them, she cries for joy. During conversation she gets irritated, takes offence, rows, as it seems to her that nobody listens to her. Determine this mental disorder.

emotional instability*
depression
asthenoneurotic syndrome
obsessive-phobic syndrome
psychomotor excitation

11. An emotional condition is the mixture of alarm, depression and fear. It develops periodically without any reason or inadequately to a real situation. It is manifested by the condition of depressed spite, gloomy depression, grumbling dissatisfaction, attacks of anger, spiteful aggression and destructive actions. Determine this mental disorder.

dysphoria * irritable
mania dysthymia
agitated depression
pathological affect

12. The patient motionlessly lies in a quiet but inconvenient pose. When his eyes are open, he observes by a glance the environmental objects. If the eyes are closed, he resists to doctor's attempts to open them. The reflexes are not disturbed. Determine this mental disorder.

catatonic
stupor*
oneiroid
psychogenic stupor
amentia

anxious-depressive condition

13. The patient is active, mobile, fussy. He resists to examination. He speaks quickly, loudly; his statements are spontaneous, inconsistent. Determine the psychopathologic condition.

    psychomotor excitation*
    catatonic excitation
    delirium
    behavioural disorder
    paranoid syndrome

14. In the patient of the somatic in-patient department on a background of high temperature a psychomotor excitation has developed. He tried to run around the department, considered that water flowed down the walls, and rats, cockroaches ran on the floor, etc. He declared that he was in the hostel, "recognized" familiar people. After introduction_of sedatives he fell asleep. In the morning memories about the experienced condition retain. Determine the psychopathologic condition.

    delirious syndrome*
    oneiric syndrome
    a twilight state of consciousness
    hallucinatory-paranoid syndrome
    maniacal syndrome

15. Patient aged 32 has been delivered by an ambulance from the street, where he was found by a casual passer-by in "an unconscious" condition. In the department he regained consciousness. The contact is poorly productive because of incoherent thinking. He gives information only about passport data. By contents of speech production it is possible to suspect the presence of visual hallucinations. A motor activity is within the limits of bed. All the time he chaotically moves his hands, pulls bed-clothes, twists buttons, etc. Determine the condition of the patient.

    amentia syndrome *
    oneiric syndrome
    delirious syndrome
    a twilight state of consciousness
    sopor

16. The patient is poorly mobile, spends most time in bed. He answers only very simple questions asked in a loud voice. The answers are short after a long pause. In the anamnesis: he abuses alcohol, before hospitalization he participated in fight. Determine the condition of the patient.

    torpor*
    obnubilation
    sopor
    alcoholic abstinence syndrome
    depressive syndrome

17. In the patient undesirable, involuntary, unpleasant representations, doubts and desires are continuously repeated. He tries but cannot get rid of them by effort of his will. For elimination of his fears he makes various kinds of "checks", "rituals" and suffers from periodic recurrence of dysthymia or depressive condition. Determine the syndrome.

    obsessive-compulsive syndrome*
    anancastic syndrome phobic
    syndrome hypochondriac
    syndrome depressive syndrome

18. The syndrome of exogenous-organic genesis, which basic mani-

festations are amnestic disorders (impossibility of memorizing, storage and reproduction of new information, pseudoreminiscences, confabulation or cryptomnesias) and loss of mental initiative, is called:

Korsakoff's syndrome*
dementia syndrome
psychoorganic syndrome
pseudodementia syndrome
amentia syndrome

19. A progressing disorder of cognitive functions (memory, judgements, abstract thinking, mathematical abilities), the destruction of emotional sphere and personality as a whole, loss of motor skills (especially a speech and visual-spatial component of praxis), as well as skills of self-service are:

    dementia syndrome*
    psychoorganic syndrome
    Korsakoff's syndrome
    pseudodementia syndrome
    amentia syndrome

20. The patient stands aloof, gesticulates, talks, quarrels without the presence of interlocutor. He does not object that he hears voices of men, who address him, intimidate, sneer at him, make demands and give orders. He gives passport data correctly, orients himself in time and place. Determine the syndrome.

    hallucinosis*
    delirium
    amentia
    manic condition
    alcoholic intoxication

21. Patient aged 27 has been delivered by ambulance to the reception ward in connection with aggressive behaviour towards his relatives; at inquiry he informs that his relatives irradiate him "with a new kind of radiation, trying to make him fulfill the tasks of criminal organization". The patient says that he hears "voices" of the leaders of this organization, who order him not to disclose their plans. The "voices" sound inside his head. During conversation these ideas do not yield to correction. He explains hospitalization by malicious intentions of his relatives. Define the syndrome.

    hallucinatory-paranoid syndrome*
    syndrome of mental automatism
    delirium
    paraphrenia
    Cotard's syndrome

22. Patient aged 75 does not state month, date, season. After long reflections he calls his name. His mood is angrily dissatisfied. He constantly carries a small packet with things with himself, hides small parcels with bread and footwear, "the invaluable books" on his chest in underwear. Establish the diagnosis.

    senile dementia*
    atherosclerotic (lacunar)') dementia senile
    melancholia behavioral disorder
    personality disorder (psychopathy)

    Note: In ICD the term of "senile dementia" is not applied; in the example the amnestic disorientation and cognitive deficiency typical of Alzheimer's disease with late onset are described. The term "atherosclerotic dementia" corresponds to vascular dementia in ICD 10.

23. A patient of elderly age (looks as if 65-70 years old) has been delivered by ambulance from the street. She is confused, fussy. She calls her name, patronymic. But she cannot recall her age, does not comprehend the situation. She is disoriented in time and

place. She is emotionally faint-hearted, apologizes for something, is tearful. Establish the diagnosis.

atherosclerotic (lacunary) dementia *
senile dementia involutional melancholia
maniacal-depressive psychosis
schizophrenia

Note: the diagnosis in this case is based on manifestations of faintheartedness, though the amnestic disorders of such kind can be at atypical variants of Alzheimer's disease, at which atrophy is combined with a vascular component (see note to question 22).

24. In a man, aged 30, a seropositive reaction to HIV was revealed half a year ago. During last 3 months he has complaints of general malaise, fatigability, headache. For the last 2 weeks — anxiety, timidity, depression. Five days ago dysmnesia and aphasia occurred. He does not observe hygienic rules at urination and defecation. Establish the diagnosis.

dementia at AIDS*
encephalopathy in patient with ARC (AIDS-related complex)
organic psychosyndrome

anxious-depressive syndrome at HIV-infected somatoform depression

25. A patient aged 34 has come to see a doctor with the purpose "to cure his nerves and to prove his wife that he drinks like all". He said that he worked hard at nervous work connected with people. He uses alcohol mainly after work "for relaxation" in the company of his collaborators. Sometimes he forgets some episodes of the feast. Next morning he feels bad. To improve his health he drinks 1-2 bottles of "Jin-tonic". He does not consider himself ill on the basis of rather long periods of complete abstinence. At conversation on alcoholic theme some liveliness and hypersalivation are observed. Make the diagnosis.

alcoholism of the 2nd degree*
abusing alcohol asthenic
syndrome cyclothymia
personality disorder (psychopathy) according to an erethitic type

Note: the diagnosis is established on the basis of presence of amnestic forms of intoxication and presence of freshening the nip. In ICD 10 there is no term "chronic alcoholism" and its stages; this case corresponds to "mental and behavioural disorders due to the use of alcohol, syndrome of dependence".

26. A patient aged 45 has been delivered by ambulance from the police station, where he addressed for help, complaining of prosecutions on the part of his former wife. According to the patient, she had hired killers, who begun to pursue the patient about 6 o'clock in the evening. He seemed to see the persecutors (among them there was his wife), hear their conversations. On reception he is exited, covered with cold perspiration, there is tremor of extremities. Tachycardia is marked. Make the diagnosis.

delirium tremens* hallucinatory-paranoid syndrome presenile paranoid psychogenic-reactive excitement schizophrenia, syndrome of mental automatism

27. A patient aged 17 addressed the therapeutist with complaints of

bad health, fever, rhinitis, pain in the muscles and joints, nausea and diarrhea. He asked to prescribe more analgetics and sedatives to him ("Tramadol or Solpadein, which help him better, and Diazepam"). The mucous membrane of the fauces is light pink, clean, in the lungs there is vesicular respiration, tachycardia. The pupils are mydriatic, photoreaction is sluggish. There are traces of injections on the skin of the forearms. At examination he is unduly familiar, irritated, rude. Make the diagnosis.

opiomania* analgetics dependence
toxicomania at tranquilizer abuse
acute respiratory disease alimentary toxinfection

28. A patient had fallen ill a year before hospitalization: he began to complain of unpleasant sensations in the body. Before hospitalization he felt "a state of excitation" and simultaneously with it a "prompting" that someone wanted to deceive him and unusually looked at him. In a month the ideas about the influence of "biocurrents" appeared, that was explained by "influence" of aliens; a quiet voice "inside the head" ordered to make these or those acts. He is inaccessible to contact, complains of "heaviness in the head", declares that his organism is "poisoned". A somatoneurologic condition is without deviations. Establish the diagnosis, form and type of the disease course:

schizophrenia, a paranoid form, a continuous-progressive type of the course* schizophrenia, a paranoid form, a paroxysmal-progressive
type of the course schizophrenia, a paranoid form, a recurrent type of the course
schizophrenia, a hypochiondrial form, a continuous-progressive type of the course schizophrenic-like psychosis

Note: in ICD 10 the diagnosis corresponds to "schizophrenia, a paranoid type, a continuous type of the course".

29. Patient A., aged 22, addressed the district therapeutist with complaints of the increased fatigability, derangement of memory, bad appetite, disturbance of sleep, decrease of attention. She explained such condition by overfatigue. On examination tachycardia, moderate increase of arterial blood pressure were revealed. The condition was qualified as a vegetovascular dystonia; vitamins, Kwauter's mixture, Elenium to night were administered. In 2 weeks at urgent request of her mother she repeatedly addressed the doctor in connection with aggravation of her state: she lost weight by 2.5 kg, lost her appetite, the meal seemed tasteless to her, she complained of dryness in the mouth, constipation, menses stopping. She felt constraint in the precardiac area. She ceased to attend classes at the institute. She answered questions in one word, her speech was quiet, slow, facial expression was sad, head was bent. She marked a poor condition in the morning. She considered herself useless, "guilty in respect of her parents, as she took their time", ostensibly forced them to worry and take care of her. She considered herself "to be always worse than others", found her condition hopeless. Determine this kind of disorder.

depressive disorder* asthenic syndrome hypochondriac
disorder syndrome of chronic fatigue apathy abulia syndrome

30. Engineer G. successfully copes with his work. None of his collaborators knows that he feels fear while passing across bridges. "I am afraid," he says, "that the bridge can fall, while I am passing across it. I see, how cars and people go across the bridge. I understand that it is fundamental and cannot break. I realize the absurdity of my fear, try to struggle with it but cannot overcome it. As soon as I try to force myself to pass across the bridge, I am seized with alarm, insuperable fear, almost horror, palpitation occurs, and I have to recede". Define the disorder.

anxious-phobic disorder*
paranoid syndrome
hypochondriac syndrome
neurasthenia
obsessive-compulsive disorder

31. An epileptic status is such a condition, at which a patient has:

multiple repeated convulsive attacks, between which the patient does not regain consciousness*

suddenly and considerably the number of convulsive attacks increases an epileptic defect of mentality has formed postictal coma and subsequent aphasia are marked the residual paranoid epileptic psychosis is formed

32. A male patient aged 30, since remembering himself, wanted to become a girl, played with dolls, dressed as a girl. He attended a circle of young doctors, took female sexual hormones; as a result his mammary glands increased, lactorrhea occurred. Demonstrating it in the military registration and enlistment office and militia, he managed to be struck off the military register. He changed his name and sex into female, became Marina by documents. A psychopathologic examination was made on him and then operation for the change of sex was performed. He had intimate relations with a man, officially registered marriage with him, imitated pregnancy, without husband's knowledge adopted a child; now works as a governess in a kindergarten. Make the diagnosis.

behavioural disorder* personality disorder (psychopathy) schizophrenia adaptive disorder Pick's disease

Note: in ICD 10 the diagnosis corresponds to "transsexualism".

33. In the curriculum vitae from the place of employment the following is marked: he constantly tries to awake interest of the surrounding people by incredible stories, in which he mentions his acquaintance with famous people; he always tries to be the focus of attention, wears bright clothes, is shameless, untruthful. Empathies with the surroundings are shown extremely melodramatically, he is demonstrative. Make the diagnosis.

personality disorder of a hysterical type (psychopathy)*
adaptive disorder
behavioural disorder
cyclothymia
Huntington's chorea

34. A patient is 56 years old, genetically is not burdened, a mechanic

by profession. He was married, his wife died. He has two adult sons, the relations with them are bad: hardly has he lived at one son, as he is asked to return to another. He does not have accommodation of his own. He does not see the way out of the situation, the ideas of suicide have appeared; he is hospitalized after a suicidal attempt. He is correctly oriented in time, place, own personality, speaks in a quiet voice, there are tears in his eyes. He does not see the way out of the situation, the mood is lowered, he seeks somebody's help and sympathy, suicidal ideas are not uttered. Make the diagnosis.

adaptive disorder* reactive
depression depressive neurosis
maniacal-depressive psychosis
alcoholism

Note: none of the listed diagnoses corresponds to ICD. The diagnosis "disorder of adaptation, a prolonged depressive reaction" is most probable.

35. The patient is 18 years old. When a child, she was inquisitive, lively, studied "excellently", had many friends. In the pubertal period at body height of 158 cm she weighed 58 kg, considered herself "fat", complained to the parents that at school she was called "doughnut". Since 16 years she has taken a great interest "in a cosmetic starvation", limits herself in food, is interested in diets, frequently after meal she provokes vomiting in herself, that has resulted in body weight loss of about 35 kg (at body height of 162 cm). She is irritable, quickly gets tired, continues to limit herself in food, does not consider herself ill. She has been hospitalized for examination in psychiatric clinic at urgent request of her parents. Establish the diagnosis.

nervous anorexia*
adaptive disorder
cyclothymia
schizophrenia
Alzheimer's disease

36. A female teenager aged 16 has a body height of 135 cm, a short neck with wedge-like skin folds, primary amenorrhea, poor cognitive interests, slight differentiation of emotions, unclear-ness of concepts; studying in a specialized school, she twice remained in the same form for the second year. Establish the diagnosis.

oligophrenia at Turner's syndrome* debility at syndrome of X-chromosome trisomy delay of mental development at hypothyrosis cerebral hyponanism child autism

Note: the term "oligophrenia" in ICD 10 is replaced by the term "mental retardation .

A patient aged 16, who has recently been discharged from hospital, where he was treated for a serious form of Botkin's disease, is delivered from home to hospital: hyperemia, sebaceous skin, mydriatic pupils, articulation by a "mumbling" type, decrease of muscle tone and inhibition of tendinous reflexes, hypomim-ics, delayed or sometimes staccato speech. The signs of alcoholic intoxication are not present. From words of the parents he took 3 tablets (by 0.3 gram of barbital sodium) for improvement of sleep. Establish the diagnosis.

intoxication by barbiturates on a background of the decreased liver function* narcotic dependence at barbiturate abuse epileptiform

syndrome exacerbation of a virus hepatitis somatogenic
psychoorganic syndrome

A patient aged 38 addressed the doctor with the request to prescribe her sedatives, better Diazepam. She says that a month and a half ago after quarrel with her husband a sensation of a lump in the throat, weakness, inability to stand and walk independently, "numbness of extremities" appeared. All these phenomena disappeared after injection of 2 ml of Diazepam intravenously by the first aid doctor. After that the patient took **1** tablet of Diazepam three times a day during two weeks. Then for a week — one tablet **4** times a day, then — one tablet in the morning, afternoon, evening and 2 tablets before going to bed. She considers such dosage insufficient, complains of anxiety, numbness of extremities, hyperhidrosis, absence of appetite, nausea, syncopes and sleeplessness at termination of the preparation intake. Make the diagnosis.

dependence on tranquilizers* hysterical
neurosis hysteroid disorder of personality
vegetovascular dystonia masked
depression

39. A preparation of choice for control of panic attack is:

relanium*
aminazine
droperidol
pipolphen
amitriptyline

40. What form of schizophrenia is the Kandinskiy-Clerambault syndrome of mental automatism characteristic of?

paranoid*
simple
catatonic
hebephrenic
neurosis-like

41. What is characteristic of Protopopov's somatovegetative triad?

tachycardia, mydriasis, constipation*
tachycardia, miosis, constipation
bradycardia, miosis, diarrhea bradycardia,
mydriasis, constipation tachycardia,
mydriasis, diarrhea

42. Cyclothymia is a mild form of

maniacal-depressive psychosis*
schizophrenia schizoaffective
psychosis schizotypical disorder
involutional psychosis

Note: the term "a maniacal-depressive psychosis" is not applied in ICD 10 and corresponds either to a bipolar affective disorder, or to a recurrent depressive disorder (earlier 'a monopolar variant of MDP").

43. The basic characteristic of epileptic manifestations is:

paroxysmality*
suddenness short
duration
repeatability
passiveness

44. A woman aged 30, a former teacher of the German language, is a mental invalid of the 2 group. A month prior to hospitalization in a mental hospital she began to feel the influence of some people on herself. She considered that they, due to a magnet, activate her jaws, tongue and use her as announcer, making her speak in German. What kind of perception pathology can this disorder relate to?

    Segla's speech-motor hallucinations*
    depersonalization visceral hallucinations
    interpretative illusions

45. In patient, aged 57, climacteric phenomena are observed. She says that her neighbours pour poison under her door, turn on gases, do harm in the kitchen garden. She tells nobody about it, except for her husband. He is also convinced now that sometimes food has a specific taste, gas is really felt in the air. He finished 3 classes, is characterized by carefulness and punctuality, easily comes under somebody's influence. It is possible to assume that this condition of the husband is:

    induced delusion* paranoid
    syndrome delusion of
    persecution paranoiac
    syndrome delusion of magic

46. A 34-year-old woman complains of sleep disorders, decrease of working capacity, memory, absence of interest in the environment, lethargy, delay of a menstrual cycle. Recently she has appreciably lost her weight. In conversation she answers in one word, has a mournful expression of the face. Actions of the doctor are the following:

    to suspect depression, to collect the anamnesis and specify the presence of suicidal thoughts* to administer psychostimulants
    to carry out experimental-psychological investigation
    to administer sedatives
    to refer to consult the gynecologist

47. A patient is 57 years old. The disease began with dysmnesia at preserved emotional sphere and criticism. Then apractic, agnostic and aphasic disorders, the phenomena of alexia developed. What diagnosis should be made?

    Alzheimer's disease*
    cerebral atherosclerosis
    senile dementia Pick's
    disease presenile dementia

48. To the jail the psychiatrist was invited for consultation of the defendant, expecting a verdict for a serious crime. The patient's behaviour suddenly changed: he began to behave in a ridiculous way, talked childly, mumbled, asked a candy. His examination revealed the following: he was disoriented in himself and environment, answered not to the point, could not count the fingers on his hands, raised his eyebrows in surprise, asked to let him to his mother. Such condition is:

    Ganser syndrome*
    simulation schizophrenia
    pseudodementia regress of
    mentality

49. A girl aged 12 has a developed phrase speech, but poor vocabulary, her speech is tongue-tied, frequently in the form of stock phrases. She is incapable of broad generalization of objects. The concrete-creative thinking prevails, but the elementary generalization is possible. She has a developed mechanical memory. She has heard about sayings and proverbs, repeats them, but does not understand their figurative meaning. Such condition is characteristic of:

oligophrenia in a degree of moronity*
imbecility
pedagogical neglect
lacunar organic dementia
psychoorganic syndrome

Note: in classification it corresponds to a mild mental retardation.

A patient is 21 years old. She was admitted to the mental hospital in the condition of speech-motor excitation. She heard "voices", expressed delusion-like fantasies of prosecution, influence. After introduction of 1.0 ml of a 5 % Haloperidol solution she calmed down and fell asleep. Further this preparation was administered orally by 15 mg 3 times a day. On the 3rd day the extrapyramidal disorders developed in the patient, such as ataxy, involuntary turn of eyeballs upwards, pain and convulsive reduction of neck muscles. What preparation should be administered for prevention and treatment of these complications?

cyclodon *
aminazine
lithium salts
diazepam
pyracetam

51. A patient aged 19 was discharged from mental hospital 7 months ago, where she had been treated for a depressive condition. She was discharged practically healthy and, despite the doctor's recommendations, did not take any medicines. The present complication began a week before hospitalization: she ceased to fall asleep, garrulity appeared, her activity increased, the started work was not finished. The mood was cheerful; she spoke about her beauty, great mental abilities, she was free and easy, hyper-sexual. What preparation should the patient take to prevent a recurrence of the disease?

lithium salts*
aminazine
amitriptyline
milipramin
anaphranil

52. A patient aged 30, a carpenter by profession, has addressed a mental dispensary on the initiative of his relatives. Half a year ago strangeness in his behaviour appeared, he showed interest in philosophy, began to write a treatise about the purpose of his human existence, left his main job, ceased to care of the children, went out slovenly dressed. He said that there were "voices" in his head which guided his behaviour. He was convinced that he was the God's ambassador to the Earth and constantly felt his influence

on himself. His attitude towards the disease is without criticism. What diagnosis can be established in the patient?

schizophrenia* alcoholic
psychosis reactive psychosis
somatogenous psychosis
organic psyhosis

53. A 32-year-old patient was accused of theft. Having heard a verdict in the court, in which the punishment turned out severer than he had expected, he became anxious, behaved strange. He could not call his name, said that he was 5 years old. To the request to write something he answered that he could not write. He demonstrated his ability to count only to 10. He confused the names of objects, complained that it was difficult to think for him. What could cause this mental disease in the patient?

trauma *
disturbance of a cerebral blood supply
alcohol abuse burdened heredity
craniocerebral trauma

54. It was marked that a 7-year-old schoolboy during classes unexpectedly became inattentive. The teacher paid attention to an absent glance of the child, smacking his lips. Falls and convulsions were not observed at the time. During short "absence" he did not respond to his name. The mother had noticed the same phenomena before, but did not attach importance to them, thinking that the child was reflecting. Define the type of epileptic attack, regarding the accepted classification.

absence*
a generalized tonoclonic attack
a simple partial attack
a complex partial attack
a jacksonian paroxysmal attack

Basic Psychotropic Drugs

Neuroleptics

Medicines	Minimal doses (mg)	Middle doses (mg)
Azaleptinum (Leponex, Clozapine)	25	150
Aminazinum (Largactil, Chlorpromazine)	25	300
Aripiprozole	15	30
Haloperidol (Haldol, Senorm)	1.5	30
Ziprexa (Olanzepine)		20 (once a day)
Imap (Flusprilene)		8 (once a week)
Clopixol	4	50
Maeeptil (Thioproperazine)	1	30
Moditen-depot (Fluphenazine)		50 (once per 3 weeks)
Neuleptil	15	60
Orap (Pimozide)	1 (onee per day))	8 (once a day)
Pipolfen (Diprazine)	50	100
Piportil		30 (once a day)
Resperidone (Rispolept)	2	8
Semap (Penfluridol)	20 (once a week)	60(once a week)
Sonapax (Melleril, Thioridazine)	20	250
Teralen (Alimemazine)	20	300
Tiapridal (Tiaprid)	200	800
Tizercin (Levomepromazine)	25	150
Trisedyl (Trifluperidol)	1	6
Triftazinum (Stelazine, Trifluoperazine)	5	60
Frenolon (Metaphenazine)	10	40
Chlorprothixene (Taractan)	15	150
Eglonil (Dogmatil, Sulpiride)	100	600
Etaperazine (Perphenazine)	10	150

Correctors ofNeurolepsy

Medicines	Minimal doses (mg)	Middle doses (mg)
Akineton	2	16
Amizile	3	8
Tremblex	125	375
Cyclodolum (Parcopanum)	2	12

Antidepressants

Medicines	Minimal doses (mg)	Middle doses (mg)
Azafenum	50	300
Amitriptyline (Tryptizoi)	25	300
Anafranil (^Clomipramine)	50	250
Welbutrin	50	300
Gerfonal	50	300
Zoloft	50	300 (once a day)
Coaxil (Tianeptin)	25	50
Ludomil (Maprotiline)	25	300
Melipraminum (Imipraminum)	25	250
Mianserin (Lerivon)	100	300
Paxil (Paroxetin)	20	40 (once a day)
Pirasidol	50	300
Sidnophen	5	30
Fluoxetine (Prozac, Prodep)	20	60
Cipramil (Citalopram)	20	60

Anticonvulsants

Medicines	Minimal doses (mg)	Middle doses (mg)
Benzonalum	100	600
Hexamidin	125	800

Depakin (Convulex, Enkorat, Orgiril)	300	1500
Difenin	117	585
Carbamazepine (Finlepsin, Timonil, Tegretol)	200	1200
Lamiktal (Lamotrigine)	50	200
Metindion	250	1500
Oxcarbazepine (Trileptal)	600	1200
Pufemid	750	1500
Tri metin	400	900
Phénobarbital	50	400
Chloracon	2000	4000
Ethosuximid (Suxilep, Picnolepsin)	250	1000

Nootropics and Lithium Preparations

Medicines	Minimal doses (mg)	Middle doses (mg)
Aminalon (GABA)	1500	3500
A m i r i d i n	30	60
Pantogam	1500	3000
Picamilon	40	200
Piracetam (Nootropil)	1200	3200
Pyriditol (Encephabol)	300	400
Tanakan	100	120
Contemnol (Litosan, Litobid)	300	1200

Tranquilizers and Hypnotics

Medicines	Minimal doses	Middle doses (mg)
Alprosolam (Xanax)	,---------- \ - - ■ --------- 1	1
BuSpar	5	60
Grandaxin	50	300
Diazepam (Sibazon, Seduxen, Relanium, Valium)	5	35
Ivadal	5	20
I mo van	7.5	15
Clonazepam (Antilepsin)	0.5	10
Lendormin	0.25	0.5
Larazepam	1.25	4
Mebicar	600	3000
Meprobamat	200	1200
Oxasepam (Tasepam, Nozepam)	10	90
Natrium oxibutiratis	1500	2500
Oxilidin	20	300
Rogipnol	1	2
Rudotel (Mezapam)	10	50
Tranxen	5	50
Trioxazine	600	1500
Phenasepam	0.25	5
Phenibut	750	1500
Chlordiazepoxide (Elenium, Librium)	5	50

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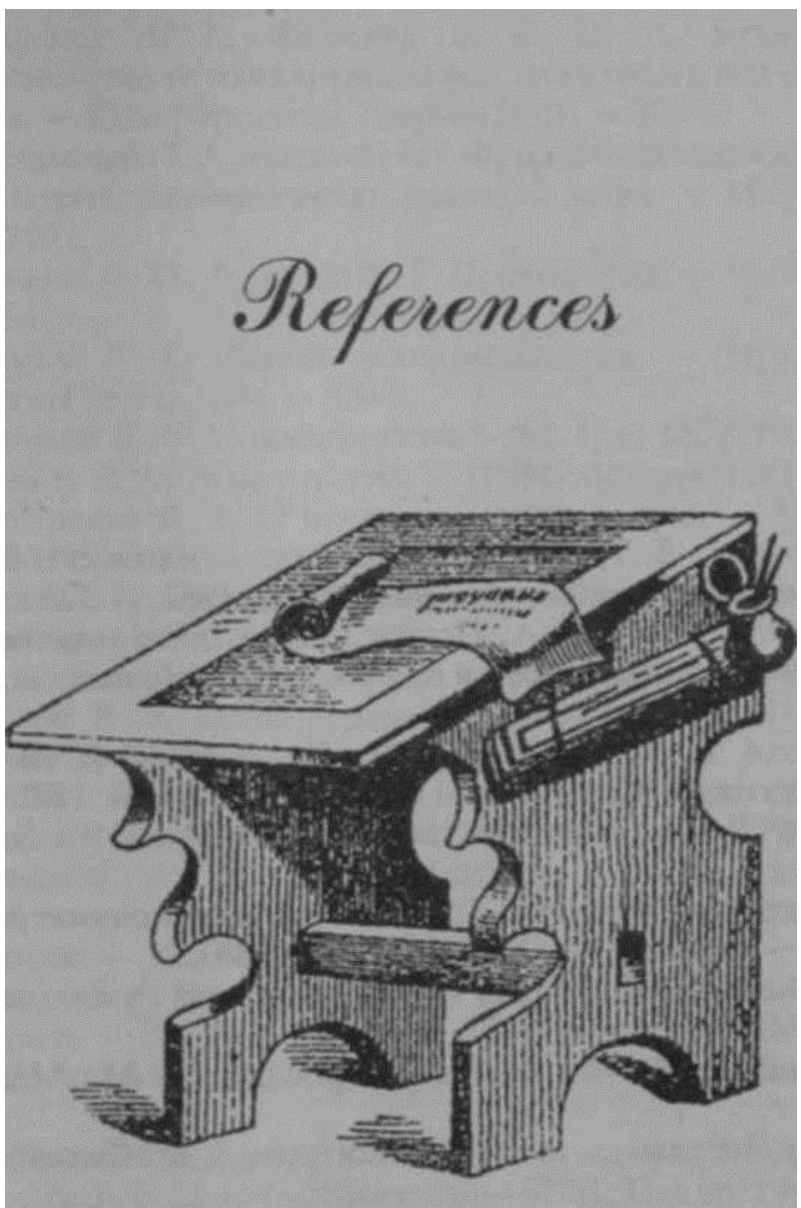

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