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The Influence of Exogenous and Endogenous Factors on the Individual Characteristics of Students

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Annotation: Exogenous psychoses are a group of mental disorders united by a common etiology (infections, intoxications, traumatic brain injuries, etc.), features of clinical manifestations, course and consequences. In this sense, they can be contrasted with endogenous mental disorders, although such a difference is relative, since, on the one hand, there is evidence of the significant role of endogenous factors (heredity, age, constitutional features, etc.) in the occurrence of exogenous psychoses, and, on the other hand, of the importance of external risks in determining and determining the genetic predisposition of the disease. The only absolutely reliable difference is the presence of an organic (brain) substrate of the disease, which can be detected by paraclinical methods.

Keywords: exogenous psychoses, etiology, pathogenesis, prevention and prognosis.

Introduction: The study of the clinical manifestations of exogenous psychoses has called into question the principle of the correspondence of etiological causes to clinical consequences, since various exogenous damage leads to the development of relatively the same psychopathological reactions. An important stage in the study of exogenous-organic mental disorders was the theory of “exogenous types of reactions”, put forward in 1908 by the famous German psychiatrist K. Bonhoeffer, according to which the brain can respond to various external damage only with a limited number of non-specific psychopathological reactions. K. Bonhoeffer explained the non-specificity and scarcity of brain reactions to various external influences by the existence of a certain “brain mechanism” that neutralizes the effects of various etiological factors, reducing them to one universal pathological principle (Noxe). external factors (infections, intoxications, injuries),

as well as extracerebral internal diseases and metabolic disorders. In his opinion, based on the psychopathological picture, exogenous psychoses can be distinguished from endogenous ones, but among the exogenous types of reactions there are no pictures that are characteristic of one or another external damage. Thus, the essence of the doctrine of "exogenous types of reactions" was that the possible reactions of the brain are much less than those to external influences, which, moreover, are mediated by the internal environment of the body. In the modern concept, the pathogenetic unity of exogenous psychoses is determined by a limited set of adaptive constitutional reactions associated with the features of central nervous regulation and the state of the reactivity system. Fundamental works in this direction were the studies of I.P. Pavlov and G. Selye.

The most common syndromes in exogenous-organic diseases are the following, which have been called "exogenous-type reactions" since the time of K. Bongoeffer:

asthenic syndrome ("organic emotional labile disorder": F06.6 according to ICD-10). Asthenia is the main background of mental changes in acute, protracted and chronic exogenous-organic mental disorders, as a rule, it is detected after the patient has recovered from a psychotic state. Its symptoms: rapid fatigue, decreased mental activity, impaired concentration, hyperesthesia, fatigue at the end of a conversation, emotional lability, memory and sleep disorders of the asthenic type;

syndromes of impaired consciousness in the form of loss of consciousness (from stupor to coma) and all types of clouding of consciousness (delirious, amentive, twilight, oneiric, special). In ICD-10, this group of diseases is classified in the section "delirium not caused by alcohol or other psychoactive substances": F05;

syndromes of perceptual disorders ("organic hallucinosis": F06.0 according to ICD-10) are characterized by persistent or recurrent, usually true hallucinations (auditory, visual, tactile, etc.), as well as psychosensory disorders in the form of metamorphopsia and distortion of ideas against the background of a "clear scheme of body unconsciousness";

amnestic (Korsakov) syndrome ("organic amnestic syndrome not caused by alcohol or other psychoactive substances": F04 according to ICD-10) is characterized by a decrease in the ability to assimilate new material, amnestic disorientation, fixational amnesia with a sense of place, time, surrounding people, pseudo-memory;

emotional disorders in the form of dysphoria, mental weakness, emotional lability, euphoria, manic disorders, as well as depressive disorders of organic origin ("organic affective mood disorders": F06.3 according to ICD-10);

ICD-10 "anxiety disorders of organic origin" F06.4;

hallucinatory-paranoid syndrome ("organic delusional schizophrenia-like disorder": F06.2 according to ICD-10), in which the clinical picture of the disease is dominated by persistent or recurrent delusional ideas about persecution, physical effects, jealousy, not accompanied by obvious hallucinations against the background of hallucinations;

"Catatonic disorder of organic origin" (F06.1 according to ICD-10) in the form of catatonic excitement with partial or complete mutism, negativism, freezing, stereotypes, waxy flexibility or impulsive movements, catatonic stupor with aggression;

Psychoorganic syndrome (personality and behavioral disorders due to diseases, injuries and dysfunctions of the brain: F07 according to ICD-10) is characterized by a significant change in the usual pattern of premorbid behavior in the form of a). excessive fatigue, exhaustion of mental activity, emotional lability, various unpleasant physical sensations (headache, dizziness) - cerebrosthenic variant of psychoorganic syndrome; b). superficial unreasonable fun, inappropriate playfulness, inhibition, restlessness - euphoric version of psychoorganic syndrome; C). irritability, outbursts, short-term anger and aggression - explosive variant of psychoorganic syndrome; G). inactivity, lethargy, aspontaneity, adynamia - apathetic variant of psychoorganic syndrome; d).

antisocial behavior (e.g., theft), gluttony, poor personal hygiene, changes in sexual behavior (hyposexuality or inadequate sexual demands), cognitive impairment, clinginess, torpidity, inertia of thinking, changes in speech tempo, psychopathic, etc.; symptomatic epilepsy.

Traumatic brain injury is one of the most common forms of exogenous brain injury. The clinical picture and outcome of traumatic brain injury are influenced by the nature of the injury: birth, home, street, sports, military, transport, industrial, etc. In addition, traumatic brain injuries are divided into open and closed. Open craniocerebral injuries can be penetrating (with damage to the dura mater) and non-penetrating, in which only the soft tissues and bones of the skull are damaged.

Closed craniocerebral injuries, in turn, are divided into concussions, contusions, and sprains.

Research methods and materials: In concussion, as a rule, the concussion of the brain mass occurs under the influence of a force impulse not applied to the surface of the head, which can occur as a result of falling on any part of the body (seat, knees, etc.) or as a result of a blow to the head protected by a helmet. At the same time, numerous blood vessels, cerebrospinal fluid and lymph (the chemical composition of the brain, as is known, is 85% liquid) begin to move, and damage to the higher vegetative centers located in the walls of the 3rd and 4th ventricles and the lower part of the Sylvian aqueduct occurs. This leads to a violation of the circulation of blood, lymph and cerebrospinal fluid and an increase in intracranial pressure. In this regard, during concussion, general cerebral symptoms (due to damage to the brain stem) come to the fore.

Contusions - local organic damage to the brain and its membranes at the site of a blow or counter-blow (the French king Henry II received a spear blow above the right eyebrow during a knightly tournament and died. An autopsy revealed a dura mater hematoma in the left occipital region). Concussion (concussion) also almost always occurs with contusions, but the clinical picture of the disease is determined by local signs of damage to the cerebral cortex.

In addition, air contusion is distinguished as a special type of traumatic brain injury, in which various damaging factors act simultaneously:

the impact of a blast wave on the bones of the base of the skull, causing contusion of brain tissue;

a sharp change in barometric pressure in the blast wave zone, leading to impaired cerebral circulation (similar to changes in decompression sickness);

exposure to a sound stimulus (explosion) causes damage to the auditory analyzer;

In addition, almost always airborne traumatic brain injury is combined with secondary contusion as a result of the body being thrown and falling.

Despite the diversity of manifestations of traumatic brain injury, there are common patterns that are common to all types of brain injury. These include:

sudden onset of injury, which causes maximum pathological changes immediately after brain injury;

regression of the subsequent development of painful phenomena (from more severe to milder);

the formation of new symptoms of the disease due to the growth of the scar (in the case of contusion) or the involvement of new foci in the process.

Consequences: Its duration is usually "from minutes to days." This period is characterized by loss of consciousness (for example, stupor, drowsiness, stupor or coma). In severe cases of concussion, the patient falls into a coma, loss of consciousness occurs not immediately, but after a few seconds (patients even manage to walk some distance). When losing consciousness in a coma, tendon reflexes disappear, the pupils dilate, do not react to light, pathological reflexes appear, the heart rate slows down sharply, Cheyne-Stokes breathing appears. If there is no fatal outcome, the reverse development occurs: coma is replaced by stupor, then stupor, the ability to recall visual images is gradually restored, and orientation over time becomes final.

Acute (secondary) period.

Its duration is "days-weeks". This period is characterized by cerebral adenoma syndrome, in which general cerebral symptoms associated with increased intracranial pressure predominate:

1. diffuse headache that worsens under the influence of external stimuli (noise, bright light), as well as when tilting the head;

2. dizziness occurs spontaneously, even in a lying position, and is especially aggravated when raising the head or changing body position;

3. vestibular disorders - nystagmus, impaired convergence of the eyeballs, oculostatic phenomena (impaired statics when observing moving objects);

4. pronounced asthenic disorders, manifested by a combination of excitability and fatigue in varying proportions. Moreover, the stronger the asthenia, the more pronounced the adynamic component;

5. Various vegetative disorders, manifested mainly by vasomotor reactions - lability of cardiac activity and blood pressure, increased sweating, salivation.

In case of brain contusions, in addition to asthenic symptoms, local neurological focal disorders are also detected - paresis, various forms of aphasia, apraxia, agnosia, agraphia, which may be the result of local lesions in the temporal and parietal lobes and post-traumatic brain edema.

Acute mnestic disorders

1. retrograde amnesia - depending on the severity of the traumatic brain injury, it may cover only the moment of injury or the days, weeks, months, and even years preceding the injury;

2. anterograde amnesia - usually occurs with severe traumatic brain injury and lasts for a short period of time immediately following the period of loss of consciousness;

3. anterograde (joint) amnesia;

4. delayed (delayed) amnesia;

5. fixational amnesia

Discussion: Most psychoses develop in the first days of the acute period and are more common than concussions. It should be noted that acute traumatic psychoses are characterized by a lack of psychopathological symptoms, and therefore most of such patients are treated in surgical trauma departments, and not in psychiatric clinics. These include:

1). Twilight is a clouding of the mind.

They usually appear after a short period of clear consciousness. Their duration ranges from several hours to several days. As a rule, twilight states occur in connection with intracranial hypertension or additional harmful factors (alcoholism, somatic diseases, overwork, early transportation). There are various exciting pictures:

epileptiform - with hallucinations, delirium, violent affect, aggression;

with a predominance of disproportion of thinking (close to amentia);

with externally ordered sequential movements - "directed twilight states";

with a predominance of drowsiness, immobility, and near stupor.

In all variants of twilight clouding of consciousness, amnesia is observed after recovery from psychosis. Unlike other psychotic forms, twilight states can recur in other periods of traumatic illness, usually after some additional damage.

2) delirium.

It develops mainly in people who abuse alcohol, against the background of asthenia, after the disappearance of the startling symptoms under the influence of additional harmful factors. Its duration is from several hours to 2-3 days. It is characterized by vivid visual hallucinations with the effect of fear and anxiety, on the basis of which secondary delirium may develop. It is characterized by long lucid (light) intervals during the day. Memories of the period of psychosis are usually fragmentary.

3). Oneiroid.

It is relatively rare, usually occurs in the first days of the acute period and lasts from several hours to 5-6 days. It is characterized by complete disorientation in the surrounding environment with a predominance of euphoric or ecstatic affect. Periods of external immobility and mutism are interrupted by individual pathetic statements with chaotic excitement. Metamorphopsia, distortion of the body scheme, and acceleration or deceleration of time are common. Patients report the content of their experiences after the psychosis has passed.

4). Korsakoff syndrome.

One of the most severe forms of traumatic psychosis. It occurs immediately after the disappearance of striking symptoms or is replaced by twilight or delirium. The duration of Korsakoff syndrome can vary from several days to 1.5-2 months, depending on the type and severity of the injury. It is especially long in people who abuse alcohol. Characteristic symptoms of this psychosis are fixational amnesia, as well as retrograde and, to a lesser extent, anterograde amnesia, confabulations (pseudoreminiscences) and affective disorders. The content of pseudoreminiscences depends on the dominant affect - in a depressed mood, pseudoreminiscences of a hypochondriacal content are noted, when the mood is elevated - expanded. Unlike confabulations, in alcoholic Korsakoff psychosis, patients with traumatic Korsakoff syndrome do not create anything new, but only change memories over time.

Conclusion: Most often they represent an acute state with emotional delirium, abundant confabulations, verbal hallucinations, individual mental automatisms, possibly impulsive and aggressive actions against the background of the predominant influence of anxiety and fear. At the peak of delusional psychosis, episodes of altered consciousness, depersonalization and derealization occur. Psychosis usually lasts several days and is replaced by asthenia.

Thus, the axial symptoms of all traumatic psychoses of the acute period are one or another form of altered consciousness and asthenia that remain in the postpsychotic period.

7). Paroxysmal conditions of the acute period.

They develop more often with craniocerebral contusions than with concussions. These include the following types of epileptic seizures:

A). simple partial means (Jacksonian);

b). simple partial seizures with impaired mental functions (metamorphopsia, "body schema", "already seen", "already heard", "already experienced", emotional-affective, unusual, hallucinatory seizures;

V). simple partial secondary generalized tonic-clonic seizures, which can occur singly or in series. Sometimes status epilepticus develops.

III. Late period (convalescence period).

It lasts for weeks - months (up to 1 year). During this period, all the symptoms of the acute period gradually smooth out and a significant part of the patients recover. Later, in severe cases, paroxysmal (epileptiform) disorders appear.

IV. Period of long-term consequences (residual, chronic period).

This can last for many years, and sometimes a lifetime. Distant consequences include mental disorders that appear in the acute or late period, do not fully reverse later, but persist for a long time after traumatic brain injury.

As a rule, mental disorders during this period occur as a result of alcohol consumption, sudden changes in weather and atmospheric pressure, overwork, infectious diseases, emotional and stressful experiences.

The main content of the period of remote consequences is traumatic encephalopathy (some authors prefer the name "psychoorganic syndrome").

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