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DEPRESSION AND EPILEPSY

At article describes communication depression and epilepsy. The course of epilepsy is often complicated by the development of depression, and on the other hand, the presence of depression increases the risk of developing epilepsy.

Keywords: epilepsy, depression

According to the modern definition of the International Antiepileptic League, epilepsy is a brain disease (disorder) characterized by a persistent predisposition to the generation (development) of epileptic seizures, as well as the neurobiological, cognitive, psychological and social consequences of this condition (ILAE, IBE, 2005). Unfortunately, most practitioners and researchers pay attention only to the first part of this definition - seizures, while non-paroxysmal disorders in epilepsy, which are an integral part of the disease, remain unexplored and patients, accordingly, do not receive adequate therapeutic care.

In recent years, a significant number of studies have appeared that indicate that epileptic discharge activity in functionally significant areas of the brain leads to permanent inaccessible disorders of the brain functions in patients with epilepsy [2]. A significant role in the development of mental disorders is played by the nature and form of epilepsy itself (severity, duration, frequency of seizures, effectiveness of therapy, use of anticonvulsants), as well as secondary reactive mechanisms [3, 4, 9].

A significant number of classifications of mental disorders in epilepsy have been developed, but the most preferred of them. systematization of mental disorders relative to the leading symptom of the disease - seizure:

- mental disorders as a prodrome;
- mental disorders as a component of a seizure;
- post-epileptic mental disorders;
- mental disorders in the inter-racial period.

The most diverse and complex in terms of diagnosis and treatment of psychopathological disorders in the inter-racial (inter-racial) period. Various mechanisms for the development of these disorders (the processes of epileptogenesis proper, brain damage of various etiologies with symptomatic epilepsies, the effects of antiepileptic drugs [PEP], personality-reactive psychogenic factors) lead to a variety of clinical manifestations. There are three groups of mental disorders according to the main mechanisms of their formation:

- mental disorders directly interconnected with mechanisms of epileptogenesis;
- mental disorders, as a result of admission anticonvulsants;
- reactive mental disorders.

This division is arbitrary, in a particular patient it is necessary to take into account the whole complex of factors with the prevalence of one of the pathogenetic mechanisms. Depression is the most common comorbid epilepsy mental disorder. In recent years, it has been established that the dependence of epilepsy and depression is mutual, that is, on the one hand, the course of epilepsy is often complicated by the development of depression, and on the other hand, the presence of depression increases the risk of developing epilepsy. This is confirmed by the general mechanisms of development of these diseases [3, 9].

A consensus-based, single, multidisciplinary terminological understanding of depression is critical. Different definitive content is embedded in the term "depression"; it is used to describe a symptom, syndrome, or disease. Most often, this concept defines a syndrome that includes psychological, emotional, somato-neurological and other clinical manifestations of the disease. Depressive syndrome in the most typical form (the so-called simple depression) consists of a reduced, dreary mood (hypotension), slowing thinking and motor inhibition (depressive triad). The lowered mood can have various shades: from a feeling of sadness, depression, to deep depression or gloomy gloom. In more severe cases, oppressive, hopeless longing prevails, which is often experienced not only as mental pain, but also as an extremely painful physical sensation in the heart, less often the head or limbs (vital longing). Ideative retardation is manifested by slow, quiet speech, difficulty concentrating, impoverishment of associations, complaints of a sharp decrease in memory. Patients' movements are slow, facial expressions are mournful, inhibited or frozen, the desire for activity is absent. In severe cases, complete immobility, gloomy numbness (depressive stupor), which can sometimes be suddenly interrupted by a state of melancholic frenzy (raptus melancholicus), are observed. Depressive states, especially shallow ones, are characterized by mood swings during the day, with an improvement in general condition and a decrease in ideative and motor inhibition in the afternoon or evening. In severe forms of depression, such fluctuations may not occur. Expressed somatovegetative disorders in the form of sleep disturbances, appetite, gastrointestinal tract functions (constipation), the sexual sphere, etc. are characteristic of the depressive syndrome.

The prevalence of depression in epilepsy is significantly higher than the average in the population - from 3-9% to 20-50% with resistant forms, which confirms the relationship of these diseases [8, 11]. In the general population, depressive disorders account for 5-17%, and in the conditions of specialized psychiatric institutions of the outpatient department - about 1%; during a mass examination at industrial enterprises, some or other depressive disorders are found in 26% of people, and among those who turned to general practitioners, in 68%. According to British authors, 9.8% of patients with epilepsy have manifestations manic-depressive disorders, in the control population this indicator is not more than 2.6%. Depression and subdepression are the second most common psychopathological conditions in epilepsy after affect fluctuations (the so-called emotional lability).

Depressive disorders develop both in the structure of the epileptic seizure itself and in the inter-paroxysmal period, however, the mechanisms of development of these disorders cause considerable disagreement. At present, enough material has been accumulated that confirms the high risk of suicides in epilepsy (4-5 times higher than in the population, especially with temporal lobe epilepsy) [4, 7].

According to our observations, the frequency of depression depends on the type of epileptic seizures and occurs almost 2 times more often with partial epilepsies than with generalized ones. Most often, depressions and subdepressions develop in patients with complex partial and secondary generalized seizures, including patients with a long, non-coarse course of the disease.

The clinical course of depressions associated with epilepsy has a number of characteristic features with the predominance of affect of melancholy, adynamia with minimal severity of agitation.

When examining 94 patients with resistant epilepsy, depressive and subdepressive disorders were detected in 32% of cases. The most frequently observed are depressing depressions (47%), adynamic subdepressions and depressions (28%), hypochondria (16%), while anxiety and depression with depersonalization disorders were much less common (9%).

Symptoms of depression in epilepsy are most logical to classify in relation to the main manifestation of the disease - an epileptic seizure. Psychopathological symptoms can occur in the pre-entry (preictal) period, in the structure of the aura, as an element of a seizure, in the post-seizure (postictal) period, but most often it is not directly related to the seizure (interictal symptomatology).

In the preentry period, patients feel changes mainly in the form of dysphoria (unmotivated mood changes), anxiety, irritability. Dysphoric symptoms usually manifest within a few hours or days before the development of an epileptic seizure.

About 6% of the examined patients with resistant epilepsy described similar symptoms before developing a seizure. With frequent complex partial seizures and complex partial seizures with secondary generalization, dysphoric symptoms were detected much more often - in 17-18% of the examined. Often, patients or their relatives by mood changes can predict the development of another seizure.

According to our data, depressive symptoms were observed in the structure of the aura in 7-8% of patients, according to some literature data, mental symptoms in the form of an aura are detected in 22-25% of cases, and 15% of them are mood disorders. Dysphoric disorders can occur during simple or complex partial seizures and be one of the elements of an attack. In this case, the symptomatology has characteristic features epileptic seizure: stereotype, short duration, lack of connection with external events, close connection with other manifestations of the seizure, partial or complete amnesia of the event with complex partial seizures. With secondary generalization, followed by psychopathological symptoms, loss of consciousness follows.

Researchers note that affective auras with a depressive radical are less common than anxiety or fear paroxysms with irritability, anxiety, and behavioral disorders. Contrasting forms of emotional disorders with unusually vivid feelings of euphoria, happiness, joy are observed much less often [12].

The presence of depressive symptoms in the post-attack period is quite common in both partial and generalized epilepsies. Repeatedly described mental disorders following the termination or relief of motor manifestations of a generalized convulsive seizure. Most often, this is a coma that goes into sleep, however, a significant part of patients have a variety of changes in consciousness.

The postictal symptoms of depression were systematically studied in a study of the Rush Epilepsy Center, which aimed to determine the prevalence and characteristics of postconvulsive psychopathological, neurovegetative and cognitive symptoms in 100 patients with resistant epilepsy. The postictal period was evaluated by us within 72 hours after the seizure, the symptoms were assessed using a special questionnaire. An analysis of the data revealed that 43% of patients experienced an average of 5 symptoms of depression, 35% - at least 2, 13% - at least 7 symptoms lasting more than 24 hours. Suicidal thoughts were recorded in 13 patients, and 8 of them had this symptomatology, 10 had a history of major depression or bipolar disorder, and this relationship was statistically significant. Postictal symptoms of depression often developed in parallel with other psychopathological symptoms.

The most diverse interictal psycho-pathological disorders. The systematization of such disorders is significantly complicated due to the variety of mechanisms that cause them, as well as various approaches of researchers to the clinical assessment of these conditions. In our opinion, the most significant factors in the development of mental interictal disorders can be the processes of epileptogenesis and the morphofunctional changes and brain damage caused by them in symptomatic epilepsy, the effect of antiepileptic therapy, and personality-reactive psychogenic factors. The main psychopathological syndromes in the clinic of epilepsy have a close phenomenological similarity with identical disorders in somatogenic psychoses [5]. Most often, mood disorders that occur for no apparent reason are observed.

Interictal depression is the most common manifestation of mood disorders in patients with epilepsy. Depression in epilepsy can mimic various mood disorders included in the classification of DSM-IV (major depression, dysthymia, bipolar disorder, etc.). In some patients, depression takes an atypical course, and such disorders are difficult to bring into any diagnostic category of DSM axis I (III, III-R or IV). According to Mendes et al., Up to 50% of depressive disorders should be classified as atypical depression according to the DSM-III-R criteria [3].

Unfortunately, in the psychiatric section of ICD-10, epilepsy as a cause of the development of certain mental disorders is mentioned only in relation to schizophrenic-like symptoms. The combination of several psychopathological symptoms and an atypical clinical course complicate the isolation of individual psychopathological disorders. In relation to epilepsy, depressive organic disorder can be classified in accordance with the most significant signs in the section "Organic mood disorders (affective)" (F06.3) as a transient or prolonged state of altered mood with a decrease in mental activity, motivation, interests, and difficulty in intellectual and mnemonic functions.

Interictal depression in epilepsy is usually manifested by a combination of autonomic symptoms, depression and irritability proper, anxiety. The atypical nature of depressive disorders in epilepsy is also manifested by their intermittent course with the presence of episodes of a normal state during the day. Such violations significantly complicate the daily activities of patients, social adaptation, reduce the quality of life, but differ from major depressive episodes in lesser severity. Due to the similarity of this course with dysthymia, the term "dysthymic-like epileptic disorder" was proposed. Kraepelin in 1923 described interictal depressive disorders in patients with multiple symptoms of epilepsy. At the end of the 20th century, Blumer and Altshuler coined the term "interictal dysphoric disorders" to identify depressive disorders in epilepsy.

In recent years, the main intermittent affective-somatiform symptoms that are characteristic of the clinical course of depression in patients with epilepsy have been identified: irritability, depressed mood, decreased energy, insomnia, pain, anxiety, phobic fears, euphoric moods.

The combination of at least three of these symptoms is sufficient for severe disability of the patient. In addition, depression is one of the most significant factors that reduce the patient's quality of life. In his QOLIE-89 study, depression was the most significant independent parameter determining the poor quality of life for patients with epilepsy. In recent years, this questionnaire has been translated into Ukrainian and approved for use in scientific research [5, 10].

There are still disagreements in assessing the relationship of affective disorders and epileptic seizures, the relationship of mental disorders with forms of epilepsy. However, the prevalence of mental disorders in patients with temporal and frontal epilepsy is not in doubt, although some authors provide weighty arguments about the high frequency of behavioral disorders in patients with generalized idiopathic epilepsy. This is due to the involvement of the structures of the hippocampus and tonsil both in the process of epileptogenesis and in the development of depression. The lateralization of the focus of epileptic activity in the development of mental disorders in patients with epilepsy has also been established. According to some authors, left hemisphere foci are more often accompanied by dysphoria, obsession, psychopathic conditions. With localization of the focus on the right, pathological reactions with a positive sign are more often observed (hypomanic episodes, high spirits, excitability) [2, 4].

The association of seizures with the sleep-wake cycle also leads to certain mental disorders. So, with sleep epilepsy, anxiety-depressive disorders prevail against a background of peculiar behavior, and with wake epilepsy, a predominantly reduced mood with a minimal representation of anxiety components is typical [1].

As mentioned earlier, there are several mechanisms for the development of depression in epilepsy. Depressive symptoms, as a reaction to the disease and related problems, are perhaps inherent in patients with epilepsy to a greater extent than with other diseases. This is due to a number of factors: insufficient social protection of patients with epilepsy and their discrimination in various spheres of life, stigmatization in connection with the diagnosis of epilepsy, patient's rejection of his disease and poor adaptation to it, unsatisfactory quality of treatment, the occurrence of material problems in connection with the acquisition medications, significant professional restrictions, and many others.

One of the factors causing psychopathological disorders is the pharmacotherapy of epilepsy. Almost all anticonvulsants can contribute to one or another mental disorder. The development of mental disorders is far from always dependent on the dosage of anticonvulsants used. Most often, mental disorders are observed when taking barbiturates, much less often when carbamazepine and valproate are prescribed, since these drugs have a mood-stabilizing property. Depressive disorders while taking phenytoin, primidone are described. Among anticonvulsants of a new generation (vigabatrin, felbamate, lamotrigine, gabapentin, levetiracetam, topiramate), vigabatrin most often causes mental disorders. Typically, from the 5-20th day of taking the drug, behavioral disorders develop with confusion, psychosis, aggressive behavior, and depression. The presence of psychopathological symptoms in patients with history of epilepsy due to the high frequency of development of mental disorders may be a relative contraindication to the appointment of vigabatrin.

Lamotrigine, having the property of timoleptic, in some cases (usually at too high a dosage titration rate) can provoke depressive states, confusion, alternative psychosis. The rate of development of depression is rather high after the cancellation of antiepileptic treatment, especially if drugs with mood-stabilizing properties were used: valproate, lamotrigine, carbamazepine. This is primarily due to the fact that after drug withdrawal (in most cases, if the rules for gradual dosage reduction were not followed), "unmasking" background mood disorders that were successfully stopped by PEP occurs. In some cases, depressive symptoms appear after drug remission of seizures is reached and can be regarded as an alternative symptom. Some researchers point to a decrease in the number of seizures in the period preceding severe depressive disorders. On the other hand, according to E.N. Landolt (1972), depressive disorders in the form of prolonged, dreary and anxious moods, can stop after epileptic status.

Often, surgical interventions for epilepsy - anterotemporal lobectomy, hippocampal resection, tonsil destruction - lead to the development of depressive symptoms. In 20-40% of patients operated on for epilepsy (even if surgery is successful), depressive episodes are observed [6, 7].

The differences in such symptoms are its relative short duration and satisfactory drug correction. In clinical studies, it was shown that there is a mutual dependence of epilepsy and depression, as well as in many ways close structural, functional and neurotransmitter disorders detected in these diseases. In the last decade, this is confirmed by two representative population studies (Forsgren and Nyström and Hersdoffer et al.), which found that in patients with epilepsy, depression occurs 7 times more often than in the population.

It is known that structural and functional disorders in the temporal and frontal lobes are characteristic of the development of primary depression. Temporal and frontal forms of epilepsy traditionally prevail in the development of depression (19-65%), the risk of suicides with temporal lobe epilepsy exceeds 2.5 times that in the population. In these cases, depression can be considered as a direct result of epileptic dysfunction of nonspecific brain structures associated with the regulation of emotions. Compelling data have been obtained on the relationship between the severity of depression and the severity of temporal lobe dysfunction. In patients with hippocampal sclerosis, a significantly more severe depression is detected compared to other patients.

In many ways, neurotransmitter disorders are common for epilepsy and depression: metabolism of the main inhibitory and stimulating mediators (GABA and glutamate), serotonin, dopamine. These neurotransmitter disorders are leading in the development of mood disorders and in triggering the mechanisms of epileptogenesis, which serves as the basis for the development of pharmacological agents for both antidepressant and antiepileptic therapy [3, 9].

Therapeutic tactics. The main objectives of the treatment of depressive disorders:

- reduction and further complete relief of depressive symptoms;
- restoration of the socio-psychological and production functions of the patient at a noble level;
- minimizing the risk of exacerbation and relapse.

In the treatment of depressive disorders, two main areas can be distinguished: psychopharmacological and psychotherapeutic.

Psychopharmacotherapy. Psychopharmacotherapy is represented by a specific group of psychotropic drugs - antidepressants. In clinical practice, especially in primary care, to date tricyclic antidepressants (TCAs) are often used, however, their use is associated with a number of side effects, associated primarily with their anticholinergic properties: persistent tachycardia, extrasystole, increased blood pressure, dizziness, constipation, tremor, weight gain, and t . P.

In this regard, at present, the first generation antidepressants, selective serotonin reuptake inhibitors (SSRIs), are becoming the first choice in the treatment of depressive disorders, especially somatized, symptomatic and comorbid ones. Their significant advantages are the oral route of administration, good absorption, rather rapid achievement of the maximum concentration in the blood plasma (within 4-8 hours), the absence of a sedative effect and a decrease in cognitive functions, an independent psychostimulating effect. Fears that the latter may potentiate anxiety in patients in cases of its combined manifestation with depressive symptoms do not find objective confirmation in clinical practice. In the presence of anxious components, it is necessary to prescribe benzodiazepine tranquilizers during the first week of treatment, which will quickly achieve a sedative effect without complications that cause TCA. With a pronounced alarming component, it is more justified to use a new group of double-acting antidepressants - serotonin and norepinephrine reuptake inhibitors (SSRIs) (venlafaxine, milnatepran). At the presence in the structure of depression of dissominal disorders, up to agripnia, an antidepressant of a new group of the melatonergic series, agomelatine, is indicated.

Pharmacokinetic interactions of PEP and antidepressants should be taken into account, since most antidepressant drugs are metabolized in the liver, and their metabolism intensified in the presence of anticonvulsants with enzyme-inducing properties. In connection with such pharmacokinetic interactions, the clinician must take into account the possible need for dose adjustment of antidepressants in order to maintain their effectiveness against the background of the use of anticonvulsants.

Antidepressants can disrupt the metabolism of PEP, some SSRIs inhibit the activity of one or more isoenzymes of the cytochrome P450 system. Among them - fluoxetine, paroxetine, fluvoxamine, to a lesser extent - sertraline. Citalopram and escitalopram practically do not show pharmacokinetic interactions with PEP. Citalopram, escitalopram and sertraline are used as first-line SSRIs due to the absence or minimal severity of pharmacokinetic interactions with PEP.

Lithium preparations were the first mood stabilizers used in the treatment of bipolar disorder. However, their neurotoxicity along with a relative anticonvulsant effect make them less attractive in the treatment of epilepsy patients. Moreover, their neurotoxicity increases with the simultaneous administration of antipsychotics, against the background of EEG disorders, in the presence of a history of CNS disorders. Thus, PEP with mood-stabilizing properties should be prescribed to patients with epilepsy before considering the appointment of lithium preparations.

Psychotherapy. The implementation of the second therapeutic direction - psychotherapeutic - should be consistent and stepwise. The method of choice is cognitive-behavioral therapy in various modifications.

Aaron Beck's cognitive therapy is a short-term structured therapy that involves active collaboration between the doctor and the patient to achieve therapeutic goals.

The cognitive triad of depression consists of:

- negative self-perception, as a result of which the patient sees himself as defective, inadequate, divorced from the world, worthless and undesirable;
- trends in the perception of the world as negative and demanding;
- the expectation of prolonged trouble, punishment, suffering, deprivation and failure.

The cognitive approach to treating depression involves four processes:

- creation of automatic thoughts;
- testing of automatic thoughts;
- identification of maladaptive provisions underlying violations;
- validation of maladaptive provisions

conclusions

1. The effect of epilepsy on patients is much more diverse than the seizure itself. Often, especially with resistant epilepsy, behavioral, neuro-

psychological and related social problems exceed negative consequences

of the seizures themselves, therefore, the problem of mental health in epilepsy is of paramount importance in the strategy of long-term care for patients.

2. Depression is one of the most common mental illnesses, comorbid epilepsy. Depression and epilepsy are largely interconnected by related mechanisms of occurrence and development.

3. Depression in epilepsy is the result, on the one hand, of the mechanisms of epileptogenesis themselves, and on the other, of reactive and iatrogenic factors.

4. Clinical manifestations of depressive disorders can occur in direct connection with seizures and / or in the interictal period, most often they are atypical.

5. The occurrence of depression in patients with epilepsy is largely associated with the effectiveness of antiepileptic treatment.

6. The use of a number of PEPs can cause depressive symptoms, while some of them are antidepressants.

7. The treatment of depression in patients with epilepsy is a difficult task, it requires a set of therapeutic measures.

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ДЕПРЕССИЯ ЖӘНЕ ЭПИЛЕПСИЯ

Түйін: мақалада депрессия мен эпилепсияның байланысы берілген, эпилепсияның ағымы жиі депрессия дамуымен асқынады, екінші жағынан – депрессияның болуы эпилепсияның даму қатерін жоғарылатады.

Түйінді сөздер: эпилепсия, депрессия

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ДЕПРЕССИЯ И ЭПИЛЕПСИЯ

Резюме: в статье описывается связь депрессии и эпилепсии, течение эпилепсии нередко осложняется развитием депрессии, а с другой – наличие депрессии повышает риск развития эпилепсии.

Ключевые слова: эпилепсия, депрессия