FEATURES OF MENTAL DISORDERS IN NEUROLOGICAL DISEASES.

Bekmurodova Madina Adham qizi
Medical student of Asian International University, Faculty of Medicine

Abstract: *The article discusses the features of mental disorders in neurological diseases - dementia, epilepsy, Parkinson's and Huntington's diseases, multiple sclerosis. It is emphasized that psychopathological syndromes are not pathognomonic for certain neurological diseases. Among the signs that help in the correct diagnosis of mental disorders caused by neurological pathology, their sudden occurrence on a heteronomous basis with highly variable and atypical clinical manifestations for mental illnesses, the absence of a history of mental illness (including family history), resistance to drugs commonly used in psychiatric pathology, the patient's use of drugs that have mental disorders among their side effects are of great importance. However, ignoring the features of mental disorders, the lack of a clinically verified approach to this category of patients, difficulties in identifying the most significant symptoms can lead to erroneous diagnosis. That is why it is so important to know not only the neurological manifestations of certain neurological diseases, but also to correctly navigate their mental manifestations. To solve this problem, close cooperation between psychiatrists and neurologists is necessary.*

Keywords: *review; psychiatric disorders in neurologic diseases, dementia, epilepsy, Parkinson's disease, Huntington's disease, multiple sclerosis, diagnosis.*

The connection between neurology and psychiatry is beyond doubt, since these disciplines focus on the functions and diseases of the same organ – the brain . Therefore, it is not surprising that with almost any disease of the central nervous system (CNS), the mental sphere is also involved in the pathological process, and the literature emphasizes the increasing convergence of these disciplines. At the same time, diagnostic difficulties often arise in practice, because neurological diseases can occur with mental disorders. It is well known that such conditions as epilepsy, Parkinson's disease, multiple sclerosis and cerebrovascular pathology are associated with an increased risk of developing anxiety, affective disorders, psychosis. It is also necessary to take into account the possibility of the presence of space-occupying lesions of the brain, including subdural hematoma, tumors (primary and metastatic), aneurysms or vascular malformations. In this case, the occurrence of mental disorders may be the result of the individual's reaction to symptoms and disability due to a particular neurological disease. Another factor may be disturbances in various neurotransmitter pathways in the central nervous system, or direct

damage to certain cerebral structures. Various individual characteristics of patients are also important - age, gender, psychological characteristics.

One of the reasons for the underdiagnoses of psychiatric disorders is that neurological patients often do not tell their physician about problems of this kind, considering such conversations pointless. The frequent lack of trusting relationships between the patient and the physician also interferes with such conversations. For example, a conversation with a patient in the presence of other patients or medical personnel does not at all promote frankness.And even if the psychiatric diagnosis is established correctly, patients often refuse the treatment they need. There are many reasons for this - both the general negative attitude of the population towards psychiatric diagnoses and the patient's opinion about the nature of his illness (patients continue to believe that their problems are entirely due to neurological pathology). Thus, it turns out that these patients continue to seek neurologists. A possible solution to this problem is closer interaction between psychiatrists and neurologists. Only under this condition will it be possible to effectively help the patient.

Dementia

Dementia is a syndrome manifested by memory impairment and other cognitive functions, which may be based on diseases of various etiologies and pathogenesis. The most common causes of dementia are Alzheimer's disease and vascular dementia (and their combination - the so-called mixed dementia). At the same time, mental disorders are often observed in patients with dementia of any genesis. Among the most common disorders in these patients, emotional disorders (depression, anxiety, apathy, affective lability, dysphoria, euphoria), psychosis and behavioral disorders (excitement/agitation and aggression) should be highlighted. These disorders are very heterogeneous in phenomenology and often present difficulties in categorization - due to their characteristic fluctuations and frequent subsyndromal manifestations. The occurrence of mental disorders in patients with dementia is usually accompanied by a worse prognosis, negatively affects the quality of life of patients, and increases the burden on the staff caring for patients and relatives.

In Alzheimer's disease, depression is detected in 30-50% of cases, and it often precedes the main clinical manifestations of this disease. Its peculiarity is the frequent combination with anhedonia and dysphoria. Gender and psychosocial factors play a less significant role in its occurrence than in major depression in the context of affective mental illnesses. Depression itself is considered a risk factor for the subsequent occurrence of both Alzheimer's disease and subcortical vascular dementia (in the presence of appropriate risk factors). Depression is also characteristic of vascular dementia, but its frequency varies, according to various data, from 8 to 66% (on average 32%). However, in the subcortical variant of vascular dementia, the frequency of depression is comparable to the frequency of depression in Alzheimer's disease. It should be noted that the relationship between cerebrovascular damage and depression is

bidirectional – it has been shown that depression in patients under 65 years of age increases the risk of stroke by 4.2 times.

The clinical manifestations of depression in both Alzheimer's disease and vascular dementia are usually mild, which distinguishes it from major depression in affective mental pathology. Difficulties in diagnosing depression in this category of patients may be due to the fact that such manifestations as attention disorders and psychomotor disorders may also be observed in patients with dementia without in dementia can be obtained from the patient's relatives and loved ones, from caregivers, rather than from the patient himself.

Despite the fact that depression is often noted at the onset of diffuse Lewy body disease, its frequency of occurrence at advanced stages of the disease is lower than in Alzheimer's disease. Differential diagnosis of depression and apathy in patients with Alzheimer's disease may present certain difficulties. However, it should be taken into account that, according to some authors, the absence of spontaneously expressed complaints of low mood or inability to receive pleasure in a patient indicates against depression, and is typical of dementia-related states of apathy. In turn, the presence of guilt in patients or suicidal thoughts expressed by them may indicate depression in dementia.

Comparative analysis shows that mental disorders such as anxiety, apathy, and depression are more common in vascular dementia, and psychotic disorders are more common in Alzheimer's disease. In frontotemporal dementia, behavioral and emotional disorders dominate the clinical picture. There is a variant of frontotemporal dementia that is accompanied by damage to the lower motor neurons, which can cause difficulties, especially in the early stages of the disease, when making a differential diagnosis with amyotrophic lateral sclerosis..

Anxiety also develops frequently in Alzheimer's disease (it is detected in 20-50% of patients), is usually generalized and is often comorbid with depression; as the disease progresses, its frequency increases. Anxiety often appears in the evening and at night, accompanied by motor restlessness. Anxiety is observed with approximately the same frequency in vascular dementia and frontotemporal dementia.

Apathy occurs in 40-80% of patients with Alzheimer's disease. Its frequency increases as the underlying disease progresses, significantly reducing the quality of life of patients. Clinically, apathy is characterized by a loss of interest in anything, manifesting itself in the emotional and behavioral spheres, as well as in speech. Having clinical manifestations similar to depression, apathy can also be observed in isolation from depression. Apathy is one of the key manifestations of frontotemporal dementia, and it occurs with this type of dementia more often than with Alzheimer's disease. At the same time, patients note aspontaneity, rigidity of mental processes, as well as perseveration. Relatives, close friends and caregivers are more likely to pay attention to the presence of

apathy, rather than the patients themselves (due to the lack of concern about their condition).

Agitation or excitement is another manifestation of mental disorders in Alzheimer's disease. Its frequency of occurrence in this disease reaches 30-50% (approximately the same as in frontotemporal dementia), and most authors consider it a secondary syndrome, in particular, as an atypical manifestation of depression. In some cases, the occurrence of excitement is associated with psychosis. It usually manifests itself in short-term episodes in the absence of criticism and behavior that is not characteristic of this individual. Sometimes episodes of agitation occur spontaneously, unprovoked, without any external cause. It is worth noting that there is data indicating approximately the same frequency of occurrence of excitement in Alzheimer's disease and vascular dementia (20 and 18%, respectively).

Dementias may also be accompanied by other affective disorders, but their frequency of occurrence is significantly lower. However, for example, although mania is not typical for Alzheimer's disease (less than 5% of cases), transient euphoria is observed much more often - in almost 10% of patients. Euphoria and "pure" mania are more typical for frontotemporal dementia (in almost a third of patients). Euphoria may manifest itself as socially unacceptable behavior and disinhibition, including not only the loss of a sense of distance, familiarity, but also hyper sexuality, accompanied by motor agitation. It should be noted that in one of the atypical variants of Alzheimer's disease, the dominant disorders in the clinical picture are associated mainly with dysfunction of the frontal lobes of the brain and are manifested by behavioral disorders. This variant causes difficulties in differential diagnosis with frontotemporal dementia, but, unlike the latter, it is characterized by less pronounced behavioral disturbances and more severe memory impairments.

Psychoses in dementias tend to occur more frequently in the later stages of the pathological process, accompanied by socially unacceptable behavior, disinhibition, and aggression. The incidence of psychoses in Alzheimer's disease and vascular dementia is higher than in frontotemporal dementia. Episodes of agitation are more common in moderate stages of dementia. Episodes of agitation and disinhibition, including in the sexual sphere, are more typical of frontotemporal dementia.

The clinical picture of psychosis in dementias is not distinguished by any complexity/bizarreness (as in schizophrenia) – and mainly includes small-scale delusional ideas and plausible plots (being robbed, losing freedom, etc.). Hallucinations are usually visual or auditory, often elementary. Often, psychotic states are reduced in nature and manifest, for example, only by the patient’s agitation. Also quite typical for this category of patients are disturbances of perception (visual agnosia, the certainty that what is happening on the TV screen is actually happening).

Visual hallucinations, as well as parkinsonism, fluctuating in course, are characteristic of dementia with Lewy bodies. In addition to visual hallucinations (54%), patients with

dementia with Lewy bodies may experience auditory (25%) and olfactory (4%) hallucinations. In addition, this category of patients exhibits vegetative disorders and frequent falls due to the development of syncopal states, which distinguishes them from patients with Alzheimer's disease. In addition, dementia with Lewy bodies is characterized by disturbances of visual-spatial and regulatory functions, as well as a less pronounced mnestic defect than in Alzheimer's disease.

Epilepsy.

Epilepsy occupies an important place in the field of neuropsychiatry. Psychopathological symptoms at one stage or another of the disease are observed in 25-50% of patients with epilepsy, especially in cases of poorly controlled seizures. However, other figures are also given in the literature: behavioral or cognitive (intellectual) disorders develop in ¾ of patients with epilepsy, and approximately 50% of patients have symptoms of mental disorders in the interictal period, negatively affecting their social functions and professional adaptation. The reason for hospitalization of almost 10% of patients with epilepsy are mental disorders, and 20% of patients regularly consult a psychiatrist on an outpatient basis in connection with them.

These disorders include depression, anxiety, psychotic disorders, cognitive impairment, and personality changes. Depending on the time parameter associated with the seizure, they can be divided into preictal, ictal, postictal, and interictal. The phenomenology of psychopathological disorders is determined by a number of factors, including the cause of epilepsy, the nature of seizures (generalized or partial), the duration of the disease, and the treatment. In addition, the presence of psychosocial factors that significantly affect the quality of life of patients with epilepsy should be taken into account. Most patients with behavioral disorders have partial complex seizures, and approximately 80% of them have been misdiagnosed with mental pathology as the underlying disease at least once during the course of this disease.

Depression is the most common form of epilepsy – in 21-33% of patients with persistent seizures (especially with partial seizures of temporal or frontal genesis, or among patients with poorly controlled seizures) and in 4-6% in the absence of seizures. This depression is considered “atypical” – characterized by an intermittent course with short episodes of apathy, insomnia, dysphoria and anxiety, or occurs as treatment-resistant dysthymia.

The relationship between epilepsy and depression is complex – studies conducted in Sweden and the USA have shown that a history of depression preceding the onset of epilepsy is 3-7 times more common than in individuals in the control group without epilepsy. Epilepsy is also associated with a high suicide rate, which occurs in this condition 10 times more often than the average in the population. The suicide rate is especially high in patients with temporal lobe epilepsy, which manifests itself as partial seizures, and depression – 9-25 times higher than in the population.

Predictable symptoms of depression, usually in the form of dysphoria, may precede the onset of an attack by several hours or even days. In children, this dysphoria often occurs in the form of irritability, aggressive behavior, and completely regresses after the attack. Depressive symptoms in the form of anhedonia, guilt, and suicidal thoughts may also occur during the attack (intraictal). As a rule, these mood disorders are stereotypical, short-lived, occur without any cause, and occur together with other manifestations of the attack.

Interictal (interictal) manifestations of comorbid epilepsy and depression differ significantly from depressive disorders in patients without epilepsy (i.e. from unipolar depression, bipolar disorder, cyclothymia, dysthymia) – and the term "interictal dysphoric disorder" has even been introduced to designate them. These differences include instability/variability of symptoms, occurrence of short episodes of euphoria, anxiety, agitation of patients, paranoid phenomena and somatoform symptoms – atypical pain, insomnia. This type of depression ("chronic, dysthymia-like condition") is often not diagnosed. In addition, depression in the interictal period can be iatrogenic in nature (it can occur with the use of phenobarbital, primidone, benzodiazepine derivatives, vigabatrin, as well as a number of other anticonvulsants).

Anxiety is observed somewhat less frequently in epilepsy than depression – in 15-25% of cases. In their manifestations, interictal anxiety disorders (generalized anxiety disorder, panic disorders, phobias, obsessive-compulsive disorder, post-traumatic stress disorder) are no different from anxiety disorders in patients without epilepsy. However, this does not apply to the phenomenology of periictal anxiety disorders, which often differ from interictal manifestations of anxiety. In addition to generalized anxiety and/or panic disorders, compulsions and agoraphobia may be observed in the postictal period. In addition, especially in children suffering from epilepsy, behavioral disorders (agitation, hyperactive, antisocial behavior) are approximately twice as common as in the control group.

Poetical psychotic disorders lasting from several minutes to several hours are often observed in generalized clonictonic seizures. Their incidence rate is from 6 to 10% .The initial symptom is usually insomnia, and only then does psychosis develop. The duration of psychosis usually does not exceed 1-3 days after the attack. These psychoses are usually richly emotionally colored and manifest themselves as hallucinations in several sensory modalities. Mental disorders can also be observed in complex partial seizures (on average, in 10% of cases) - in the form of memory disorders, affective aura, hallucinations and depersonalization. Most often, psychopathological disorders occur in temporal epilepsy (in addition to depression - hyperreligiosity, changes in sexual behavior, in some cases - psychosis). Frontal lobe epilepsy is characterized by the development of Todd's palsies (transient weakness in the contralateral limbs), hypersexual and antisocial behavior, and agitation in the post-ictal period.

Interictal psychoses occur in 10% of patients with epilepsy, usually 5-10 years after the onset of epilepsy. In their manifestations, they are similar to psychoses in patients without epilepsy, but they are characterized by a less severe course, the absence of negative symptoms, less pronounced disturbance of the patient's orientation in his own personality, and greater effectiveness of therapy. To a greater extent, they are characteristic of epilepsy occurring with partial seizures. Interictal psychoses similar to schizophrenia are more often observed with left-sided or bilateral localization of the epileptic focus. Psychoses as a prodrome of an epileptic seizure are extremely rare, usually with generalized clonic-tonic seizures. After the end of the epileptic seizure, they regress. Ictal psychoses are less common than postictal psychoses and mainly with non-convulsive seizures. It should be noted that the development of psychosis during an epileptic seizure may be a manifestation of non-convulsive epileptic status. The differential diagnosis of such conditions is aided by their phenomenology (the patient is unavailable for contact, automatisms are observed), as well as electroencephalography data.

Psychoses in epilepsy may be iatrogenic. In particular, they may occur during treatment with ethosuximide, phenobarbital, primidone, topiramate, and levetiracetam. In addition, their development may be caused by sudden discontinuation of anticonvulsants, especially those with a mood-normalizing effect - carbamazepine, phenytoin, and valproic acid preparations. In addition, antiepileptic drugs may cause behavioral disorders (barbiturates, benzodiazepines, vigabatrin, topiramate, levetiracetam). Behavioral disorders may be observed when using high doses of valproic acid (in therapeutic doses, encephalopathy may occur during its use).

Quite typical of epilepsy are personality changes, which are observed in 40-60% of patients, and negatively affect social functions to a greater extent than even psychosis. Patients, especially those with a temporal localization of the lesion, have a narrowing of their range of interests, they lose their sense of humor, become overly pedantic, often use stereotypical turns of phrase (speech clichés) in speech, and are overly fixated on the details of events - with an inability to grasp the problem as a whole, perseverations are often observed. Excessively pronounced suspiciousness may also arise.

Parkinson's disease.

Parkinson's disease is one of the most common movement disorders - it occurs in 1% of people in the population over 50 years of age. The disease manifests itself as a triad of syndromes - akinesia, rigidity and resting tremor. However, the clinical picture of Parkinson's disease is not limited to this - despite the leading movement disorders, 90% of patients at one stage or another of the disease experience non-motor neuropsychiatric disorders, including psychosis.

Depression, for example, is often noted even before the clinical manifestation of the leading syndromes in this disease - hypokinesia, rigidity and resting tremor. The frequency of depression in Parkinson's disease is on average about 30-50%. Such high

figures are one of the arguments confirming the assumption that depression is one of the manifestations of this disease. The presence of depression at the onset of the disease is a risk factor for the development of other mental disorders. Thus, in addition to depression, almost 40% of patients (regardless of gender) develop anxiety disorders, often their onset precedes the appearance of movement disorders by 3-8 years. Most often, they occur in the form of generalized anxiety disorder, social phobia and panic disorders. Typically, the severity of these disorders increases during “off” periods, when the effect of antiparkinsonian drugs disappears/weakens and motor symptoms increase significantly, although such a connection is not always observed. Anxiety disorders can occur in the structure of depression, but they tend to become chronic, persisting as affective symptoms decrease (depression in Parkinson’s disease is typically episodic). The development of depression as a nosogenic reaction is also facilitated by the motor defect associated with this disease. At the same time, suicides in Parkinson’s disease occur rarely .

Panic attacks begin suddenly, usually without obvious provocation, and are characterized by a feeling of gloomy foreboding, accompanied by rapid shallow breathing, gastrointestinal disturbances, and fear of becoming completely immobile or dying. Patients with anxiety disorders often also experience sleep disturbances, even in the absence of depression accompanying anxiety. An important symptom characteristic of anxiety disorders is somatic anxiety, which can be described by patients as a feeling of “internal tremor” when tremor is not objectively detected. The feeling of “trembling” can occur not only in the limbs, but also in the torso, where tremor cannot develop.

Apathy, defined as a condition associated with limited motivation and initiative, as an independent syndrome occurs in 12% of patients with Parkinson's disease and is combined with depression in at least a quarter of cases. At the same time, unlike depression, patients do not have depression, negative assessment of themselves and others, active rejection of social connections or anhedonia. The patients themselves are not bothered by the presence of apathy (often criticism is reduced/absent), but their lack of initiative often causes concern among relatives and caregivers, since manifestations of apathy can be taken for depression or a sign of developed dementia.

Cognitive impairments are a characteristic manifestation of Parkinson's disease, and if at the initial stages of the disease they are selective (regulatory and visual-spatial functions, memory, attention are mainly affected), then at the pronounced stages of the pathological process they reach the degree of dementia (in 25-40% of patients, and at the final stage of the disease - in 70%). At the same time, it is not uncommon for screening tests for dementia (in particular, the Mini-Mental State Exam, abbreviated MMSE) to show "normal" results even in patients with clinically obvious dementia.

In the later stages of the disease, especially during therapy with levodopa drugs, hallucinations may occur (in 25-50% of patients). In this case, continued therapy with levodopa drugs may lead to an increase in the severity of psychotic disorders. In turn, the

prescription of neuroleptics for the purpose of stopping the latter may be accompanied by an increase in the severity of Parkinsonian manifestations ("cascade of prescriptions").

Psychoses in Parkinson's disease most often occur in the form of complex visual hallucinations, typically in the form of living beings talking to patients. As a rule, they are stereotypical - the nature of hallucinations in the same patient does not change. They can occur in the dark and in the light, more often when the patient is alone, resting, watching TV or reading. Auditory hallucinations in the absence of visual ones are extremely rare. Hallucinations can be accompanied by delusional ideas. Psychoses are often accompanied by anxiety affect and depression.

Huntington's disease.

Huntington's disease is an autosomal dominant progressive disorder that manifests itself as a combination of neurological (mainly extrapyramidal) disorders, mental and cognitive impairment. The gene defect is localized on chromosome 4 and consists of an expansion of trinucleotide repeats. Despite the fact that this disease is primarily characterized by the presence of extrapyramidal disorders, in approximately 25-50% of patients, psychopathological phenomena precede motor disorders. It has been shown that mental symptoms (in particular, increased excitability) are detected even in neurologically and cognitively asymptomatic carriers of the pathological gene. This leads to an erroneous diagnosis in almost every second patient. Cognitive impairment is quite common, but visual-spatial functions, memory and regulatory functions are most significantly affected. In severe cases, the cognitive defect reaches the level of dementia.

Mental disorders may be observed both in the early and late stages of Huntington's disease, and there is no correlation with the severity of either motor or cognitive symptoms (with the exception of apathy, the origin of which is associated with a disorder of regulatory functions). According to some data, these disorders are detected in 98% of patients, which is significantly higher than in other extrapyramidal diseases. In addition to apathy, patients with Huntington's disease often exhibit such disorders as depression, agitation, aggression, and in some cases psychosis, obsessive-compulsive disorders, and suicides, in combination with "frontal syndrome". Agitation is the most common (in more than half of patients) and is often accompanied by verbal or physical aggressive behavior. Due to the possible development of aggression, patients are strictly contraindicated to drink alcohol, even in small doses, and psychoactive substances. Suicides in Huntington's disease are a major problem due to the combined action of the underlying factors - depression and impulsive behavior. This is aggravated by the fact that most patients know from their family history what awaits them in the future. The risk factors for suicide are the same as in the general population (depression, loneliness, no children, etc.). In general, suicides in Huntington's disease occur 4 times more often than in the population; 25% of patients attempt suicide at various stages of this disease (most often - in the 5-6 decade of life). Mania or hypomania are rare - 5-10% of cases. Anxiety may be

one of the first symptoms of this disease, it is usually combined with depression. Psychoses develop rarely. Thus, they are noted in only 4% of patients, mainly with the onset of the disease at a young age.

It is important to note that mental disorders in terms of their onset time may not only precede movement disorders, but also "be in the shadow" of, for example, choreichyperkinesis within the clinical picture of this disease. It should also be taken into account that neuroleptics prescribed for mental disorders may lead to a decrease in the severity of choreic syndrome, which complicates the diagnosis of this disease.

Multiple sclerosis.

Another cause of mental disorders in neurological practice is multiple sclerosis. This disease, demyelinating in nature, is associated with multifocal lesions of the white matter of the central nervous system with the appearance of motor, visual, sensory, and pelvic disorders in the clinical picture. Cognitive disorders also occur with multiple sclerosis, although they rarely reach the level of dementia. The onset of multiple sclerosis occurs mainly at 20-40 years of age. The disease is highly variable in its course, its most common variant is remittent - when exacerbations of the pathological process are replaced by periods of improvement.

In addition to cognitive deficit (most often these are memory and regulatory function disorders), about a quarter of patients have behavioral disorders. Euphoria is quite typical for this category of patients, as well as depression, which is detected in almost half of the patients. Depression in multiple sclerosis is associated with the action of several factors. One of them is nosogenic (reaction to the uncertainty of the prognosis, unpredictability of the occurrence of exacerbation of the pathological process, insufficient support from others, etc.). However, it is difficult to explain the occurrence of depression in this disease only by this factor. Probably, changes in the brain substance, and the action of proinflammatory cytokines, and iatrogenies (in particular, corticosteroids, which are used during an exacerbation of the pathological process, and beta-interferon drugs, which are used as the first line of therapy to prevent exacerbations in the remitting course of multiple sclerosis) are also important. Approximately 5-10% of patients experience emotional lability with "affect incontinence" (pathological crying, laughter). It is also necessary to consider the possibility of an iatrogenic cause - glatiramer acetate, which is also used in the relapsing course of multiple sclerosis, can lead to emotional lability. Anxiety occurs in 19-34% of patients, which is a very serious problem, since it often acts as a marker of depression and increased suicidal risk. Another problem is the frequently noted anger of patients, which is attributed to the reaction to the disease and disability.

Thus, various psychopathological phenomena are quite common in neurological diseases. At the same time, psychopathological syndromes are not pathognomonic for certain neurological diseases. Among the signs that help in the correct diagnosis of mental disorders caused by neurological pathology, it is necessary to mention their sudden occurrence on a heteronomous basis with highly variable and atypical clinical

manifestations, especially in elderly people, the absence of an individual and family history burdened with mental illnesses, resistance (or atypicality of the therapeutic effect) to drugs commonly used in mental pathology, the patient's intake of drugs whose side effects may be of a psychiatric nature. Of course, the key importance is the correct assessment of the neurological status, its dynamics, as well as confirmed by paraclinical research methods in patients with neurological (or somatic) diseases, which in themselves can lead to the development of mental disorders. However, this problem has another side – ignoring the peculiarities of mental disorders, the lack of a clinically verified approach to this category of patients, difficulties in identifying the most significant symptoms and syndromes, all this can lead to erroneous diagnosis. Therefore, it is so important to know not only the neurological manifestations of certain diseases of the central nervous system, but also to correctly navigate their psychiatric symptoms.

REFERENCS:

1. Butler C., Zeman A.Z.J. Neurological syndromes that can be mistaken for psychiatric conditions. Journal of Neurology Neurosurgery and Psychiatry. 2005; 76(Suppl. I): 131-8. DOI:10.1136/ jnnp.2004.060459
2. Miyoshi K., Morimura Y. Clinical Manifestations of Neuropsychiatric Disorders. In: Neuropsychiatric Disorders. Edited by K. Maeda. Tokyo etc.: Springer. 2010; 3-15.
3. Boller F., Barba G.D. The Evolution of Psychiatry and Neurology. Two Disciplines Divided by a Common Goal? In: Current Clinical Neurology. Psychiatry for Neurologists. Edited by D.V.Jeste, J.H.Friedman. Ch.2. Totowa: Humana Press. 2006; 11-5.
4. Lennox B.R., Lennox G.G. Mind and movement: the neuropsychiatry of movement disorders. Journal of Neurology Neurosurgery and Psychiatry. 2002; 72(Suppl. I): 128-31.
5. Lloyd G.G. Who should treat psychiatric disorders in neurology patients? Journal of Neurology Neurosurgery and Psychiatry. 2000; 68(2): 134-5. DOI:10.1136/jnnp.68.2.134
6. Carota A., Staub F., Bogousslavsky J. Emotions, behaviours and mood changes in stroke. Current Opinion in Neurology. 2002; 15(1): 57-69. DOI:10.1097/00019052-200202000-00010
7. Aarsland D., Ballard C. Psychiatric issues in non-Alzheimer dementias. Clinical Neuroscience Research. 2004; 3: 397-412. DOI:10.1016/j.cnr.2004.04.006
8. Levy J.A., Chelune G.J. Cognitive-behavioral profiles of neurode generative dementias: beyond Alzheimer's disease. Journal of Geriatric Psychiatry and Neurology. 2007; 20: 227-238. DOI:10.1177/0891988707308806
9. Aalten P., Verhey F.R.J., Boziki M., Bullock R., Byrne E.J., Camus V. et al. Neuropsychiatric syndromes in dementia. Results from the European Alzheimer Disease Consortium: Part I. Dementia and Geriatric Cognitive Disorders. 2007; 24: 457-63. DOI:10.1159/000110738
10. Weintraub D., Porsteinsson A.P. Psychiatric Complications in Dementia. In: Current Clinical Neurology. Psychiatry for Neurologists. Edited by D.V.Jeste, J.H.Friedman. Ch.11 Totowa: Humana Press, 2006; 125-36.