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NEUROLOGICAL AND COGNITIVE CHARACTERISTICS OF NON-EPILEPTIC PAROXYSMAL DISORDERS IN CHILDREN DURING PUBERTY

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Abstract. Autonomic dysfunction is a prevalent condition during puberty (68%). The main concerns regarding autonomic disorders relate to puberty: elevated prevalence, functional irregularities, social and physical discomfort, diminished quality of life, and psycho-vegetative and somato-vegetative symptoms. Paroxysmal states (PS) are commonly seen during adolescence, presenting as seizures, fainting, pain, vegetative-vascular crises (panic attacks), and various other conditions. As reported by the WHO and various researchers, clinically meaningful issues in the neurovegetative and emotional domains are seen in 20-40% of youth. Adolescence, which includes individuals from 10 to 20 years old, is the most susceptible time for exposure to different pathological influences. Literature on immune and neurotransmitter system disorders is scattered and lacks consistency. The mechanisms and identification of paroxysmal disorders during adolescence are not well comprehended, and rehabilitation approaches for these patients are lacking.

Keywords: adolescence, autonomic dysfunction, syncopal events, headaches, sympathicotonia, vagotonia.

Introduction: Autonomic dysfunction of the nervous system is a syndrome with several causes, a complex of symptoms including disorders of the cardiovascular, respiratory, and digestive systems, psychoneurological disorders, thermoregulation disorders, and the development of neurosis. The mechanism of autonomic dysfunction is based on stress and excessive emotional stress against the background of existing somatic and neurological diseases. Other causes are possible - bad habits, hormonal imbalances, and some chronic diseases [6]. One of the main problems today is strengthening the physical, mental, and psychological activity of the younger generation. It is important that the younger generation is physically and mentally developed, as well as mentally healthy. Psychological health plays a particularly important role in personality development. Psychological development is the most important aspect of raising adolescents during adolescence. During this period, significant changes in appearance and behavior, an increase or decrease in hormone levels, and changes in behavior are noticeable. Mental health complaints that are not prevented in adolescence can lead to difficult-to-treat and long-term complications. This, in turn, affects the physical and mental health of the teenager and reduces his or her chances for adulthood. Understanding psychological changes in school-age children is an important process. Establishing a relationship with a teenager with a mental disorder and solving problems that negatively affect his or her psyche is the basis for preventing future mental illnesses. To study the clinical state of the autonomic nervous system in adolescents aged 10-15 years.

Material and methods of research: The study was based on the data of an examination of 80 children (40 boys and 40 girls) aged 10-15 years who received treatment in the neurological department of the Tashkent state medical university clinic and in the Neuromed clinic. To assess

the state of the autonomic nervous system, the following were used: clinical and anamnestic survey, G. Vein tables, and neurostatus examination.

Research results: Research revealed that both male and female adolescents (28% of boys and 81.8% of girls) display an imbalance in the autonomic nervous system characterized by sympathicotonia, vagotonia, and a mixed type of vegetative vascular dystonia. The clinical and paraclinical signs of autonomic dystonia syndrome in adolescents are varied and occur in two consecutive phases: autonomic dysfunction, which presents a common symptom complex of autonomic instability in 57% of children (46.3% in boys, 53.7% in girls), and autonomic dystonia, noted by the development of clinical syndromes in 43% of adolescents

Somatic markers of autonomic dysfunction and dystonia include: vascular dyskinesia, cephalgia - 88%, cardialgia - 33%, dizziness - 54%, pastosity and hyperventilation syndrome - 13%; psychovegetative markers - palpitations - 91%, sleep disturbances - 36%, weather dependence - 1-2%, emotional lability - 78% and irritability - 93%. The psychological status of adolescents with autonomic dysfunction is characterized by a high level of emancipation, intrapersonal conflict with excess aggressiveness and lack of sensitivity; with autonomic dystonia - sharply defined types of character accentuation, aggressiveness of interpersonal relationships, desire for leadership, isolation and refusal of relationships in case of negative stimulation.

Clinical and neurological variants of the permanent autonomic dysfunction syndrome, both without and with increasing severity of clinical symptoms, are characterized by fluctuations in the ratio of the activity of the parasympathetic and sympathetic divisions of the autonomic nervous system without changing the indicators of the total spectrum power and the presence of predominantly arterial or venous cerebral dyscirculation. The permanent course of autonomic disorders with the addition of new clinical syndromes or transformation into a paroxysmal course is accompanied by pronounced signs of maladaptation in the form of a decrease in the indicator of the total spectrum power due to a decrease in the activity of the parasympathetic, an increase in the activity of the sympathetic division of the autonomic nervous system, activation of neurohumoral and cortical influences and a combination of signs of arterial and venous dyscirculation [4]. The course of autonomic dysfunction syndrome varies depending on the learning conditions: in children with a standard academic load, variants of a permanent course without dynamics of clinical manifestations prevail, and in adolescents with high intensity of learning - a permanent course with an increase in the severity of clinical symptoms, with the addition of new syndromes, the appearance of a paroxysmal course. Adolescents are at risk for the development of psychosomatic pathology in the future and therefore require special dispensary observation and implementation. Analysis of the influence of risk factors, clinical and functional research data and indicators of vegetative status made it possible to establish the features of the clinical course of autonomic dysfunction syndrome in adolescents and also optimize approaches to prevention and rehabilitation taking into account the severity of vegetative disorders. Adolescents with mental disorders may experience difficulties in mastering school subjects, establishing social contacts and communicating. In this case, there are dangerous changes in physical behavior, violations of physical health and rights, discrimination from peers and increased psychological pressure. In this regard, it is important to study the changing aspects of the teenager's personality and monitor his personal development. Depressive situations, stressful situations, feelings of anxiety and fear, behavioral disorders lead to various diseases, and in some cases, to disability among the teenage generation. The activity of the human body is mainly controlled by the sympathetic and parasympathetic systems of the autonomic nervous

system. These two structures jointly control smooth muscles, internal organs, lymph nodes, blood vessels and homeostasis. Sometimes one of these two systems may suffer from overload. The causes of vegetative-vascular dystonia are varied and include chronic diseases of the internal organs and endocrine glands, neuroses and allergies. Clinical manifestations of these diseases are varied. In particular, they can manifest themselves in the form of insomnia, dissiness, headaches,feelings of general weakness and rapid fatigue. In addition, complications such as discomfort in the heart, salivation, loss of appetite, vomiting, diarrhea or constipation, various pains in the heart, bloating, frequent urination and shortness of breath appear. These symptoms are accompanied by headache and memory loss. When examining the nervous system, increased or decreased tendon reflexes, tremor of the fingers, increased or decreased pilomotor reflexes, impaired orthostatic and clinostatic tests, acratic cyanosis, rapid alternation of subfebrile and hypothermic symptoms, signs of numbness in the legs and arms are noted. Patients with such symptoms quickly react to changes in the weather. Vegetative paroxysmal states, manifested by the same symptoms as above, are currently widespread among adolescents. The sympathoadrenal type of this disease begins suddenly and occurs against the background of mental and physical fatigue, emotional processes. In this case, symptoms such as hyperthermia appear, i.e. increased temperature, increased heart rate and increased blood pressure. At the end of the attack, the patient excretes a large amount of urine, which ends the attack. The vagoinsular type of vegetative paroxysmal states is manifested by general weakness, decreased heart rate, decreased blood pressure, sweating, dizziness, difficulty breathing. As a result of these symptoms, the patient loses consciousness. There is also a mixed type of paroxysmal states, which is characterized by a combination of symptoms of both types listed above. The occurrence of vegetative-vascular dystonia is influenced by many factors, and the causes of the disease are varied. Symptoms also manifest themselves in different ways. The cause of this disease is mainly a hereditary predisposition.At the end of the attack, the patient excretes a large amount of urine, which ends the attack. The vagus-insular type of vegetative paroxysmal states is manifested by general weakness, a decrease in heart rate, a decrease in blood pressure, sweating, dizziness, and difficulty breathing. As a result of these symptoms, the patient loses consciousness. There is also a mixed type of paroxysmal states, which is characterized by a combination of symptoms of both types listed above. The occurrence of vegetative-vascular dystonia is influenced by many factors, and the causes of the disease are varied. Symptoms also manifest themselves in different ways. The cause of this disease is mainly a hereditary predisposition.At the end of the attack, the patient excretes a large amount of urine, which ends the attack. The vagus-insular type of vegetative paroxysmal states is manifested by general weakness, a decrease in heart rate, a decrease in blood pressure, sweating, dizziness, and difficulty breathing. As a result of these symptoms, the patient loses consciousness.

Conclusions: Examining the effects of risk factors, clinical and functional research data, and indicators of vegetative status enabled the identification of the characteristics of the clinical progression of autonomic dysfunction syndrome in adolescents, as well as the enhancement of prevention and rehabilitation strategies based on the severity of vegetative disturbances. A mixed type of paroxysmal states exists, characterized by symptoms from both of the types mentioned earlier. The development of vegetative-vascular dystonia is affected by numerous factors, and the origins of the condition are diverse. Symptoms can also present in various forms. The primary reason for this illness is largely a genetic inclination.

LIST OF REFERENCES

1. Alexandrova, V.A. Clinical lectures in pediatrics / V.A. Alexandrova, F.N. Ryabchuk, M.A. Krasnovskaya. - St. Petersburg: “DILYa Publishing House”, 2004.576 p.
2. Ashman, A.A. Diseases of nervous regulation. Autonomic dystonia syndrome: Textbook./A.A. Ashman, I.E. Poverennova.—Samara: State Enterprise “Perspective”; SamSMU, 2003.—4
3. Belopasov, V.V. Post-traumatic headache in adolescents (clinic, diagnosis, treatment) / V.V. Belopasov, O.A. Kolosova, I.G. Izmailova // Pediatrics. - 2001. - No. 1. - P. 61-65.
4. Ismagilov, M.F. Modern approaches to determining functional autonomic disorders / M.F. Ismagilov // Neurological Bulletin. 2003. - T. XV, No. 3-4. - P. 70-78
5. Autonomic nervous system activity and the state and development of obesity in japanese school children /N.Nagai, T.Matsumoto, H.Kita, T.Moritani //Obes.Res.2003.—no.11(1).Pp.25.
6. Brown,RJDissociation,childhoodinterpersonaltrauma,andfamilyfunctioninginpatientswithsomatizationdisorder/RJBrown,A.Schrag,MRTrimble//Am.J.Psychiatry.—2005.no.162(5).—Pp.889-905.