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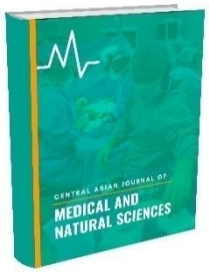

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Peculiarities of the Effect of Epilepsy on the Hypothalamic-Pituitary System (Literature Review)

1. **Amonova Zahro Kahramon kizi**
2. **Dzhurabekova Aziza Tokhirovna**

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[1] Candidate of Medical Sciences,Associate Professor Department of Neurology and Nervous Diseases Samarkand State Medical University

[2] Doctor of Medical Sciences, Professor Head of the Department of Neurology and Nervous Diseases of Samarkand State Medical University

Abstract: Epilepsy is a common neurological disease associated with a significant decline in physical and spiritual capabilities. It has been known since ancient times. Epilepsy is a common socially significant CNS pathology. According to the World Antiepileptic League, epilepsy is a brain disease, has a predisposition to the formation of repeated seizures resulting in the development of neurobiological complications, as well as disorders in cognitive, psychological and social status.

Key words: Epilepsy, hypothalamic-pituitary system, hormonal imbalance, central nervous system.

Introduction. The fight against epilepsy, as defined by WHO experts, requires special and priority attention, because in the structure of morbidity, is characterised by severe consequences. Epilepsy refers to systemic diseases, where the pathological process of the brain reflects a single functional system of the body. At one time, the state of the brain, it is the result of the activity of non-specific structures with the manifestation of neuropsychic, autonomic and neurohormonal systems. Accordingly, the aspect of studying the nature of the hypothalamic-pituitary system in patients with epilepsy, expands the diagnostic field of research, for a deeper evaluation of clinical signs of the disease, identifying new pathogenetic mechanisms, in order to optimise treatment tactics.

Modern scientific research is mainly focused on the study of hormonal status in epilepsy and hormonal imbalance, few and contradictory, the interictal period and chronicisation of the process, the mechanism of adaptation in the gender aspect, depending on metabolic disorders remain poorly studied. The modern level of scientific research requires not only analyses of the course of the disease, the relationship with somatoform changes in the structure of the body as a whole, but an important component of the study is the prognosis.

In the Republic of great importance is a comprehensive programme to improve early diagnosis and reduce complications of somatic pathologies. In this connection the study in patients with epilepsy,

clinical and paraclinical manifestations of disorders in the hypothalamic-pituitary system, as well as characteristic features.

Neurophysiological disorders in order to develop an integral assessment of risk factors for the development of adverse outcomes of epilepsy and to predict its severity in hypothalamic-pituitary-adrenal system dysfunction is an urgent problem. The development of complex treatment of patients with epilepsy using the results of the study of identified disorders in the hypothalamic-pituitary-adrenal system will contribute to improving the provision of medical care to patients with epilepsy at a higher level.

The problem of epilepsy is one of the most urgent in modern neurology. Lack of epidemiological data on epilepsy, as WHO believes, in part of countries leads to a poor level of medical care for such patients. Antiepileptic drug (AED)-resistant forms of epilepsy and some epileptic syndromes force researchers to search for alternative therapies that sometimes provide comparable clinical efficacy to AED therapy. Modern epileptology is developing an active search for early predictors of pharmacoresistance to AEDs in epileptic patients for better therapy of the disease and prevention of direct and indirect manifestations of pathology.

The effect of hormone therapy (HT) on epileptogenesis of brain cells is based on the activity of the hypothalamic-pituitary-adrenal system (HHNS), as epileptic activity of brain neurons stresses the CNS and the whole organism, activation of HHNS is a normal neurophysiological reaction.

GHNS hormones influence epileptogenesis, so adrenocorticotropic hormone (ACTH) stimulates the adrenal cortex; increasing secretion of GCS, aldosterone and sex hormones, influencing melanocortin receptors in the hypothalamus reduces CRH production, reducing epileptogenic activity and the negative effects on immature neurons of the large hemispheres of multiple epileptic impulses.

Understanding the influence of the hypothalamic-pituitary system in epileptoid patients provides an opportunity to expand the assessment of the clinical diagnostic picture of the disease and the ability to optimise treatment tactics. Regulation of the cerebral function of the hypothalamus, which ultimately constitutes the hypothalamic-pituitary system (HPS), by the hormonal background, modulates epileptic activity; studies in this direction create a prerequisite for new promising approaches to the treatment of epilepsy, taking into account the lack of efficacy of antiepileptic drugs.

Epilepsy is a common neurological disease associated with a significant decrease in physical and spiritual capabilities. It has been known since antiquity. Epilepsy is a common socially significant pathology of the CNS. According to the World Antiepileptic League, epilepsy is a brain disease with a predisposition to the formation of repeated seizures, resulting in the development of neurobiological complications, as well as disorders in cognitive, psychological and social status.

Mukhin K.Y. (2002) describes epilepsy as a pathology with a chronic course against the background of recurrent unprovoked attacks of motor disorders, as well as sensory, vegetative, thinking or mental functions arising from excessive neuronal discharges in the grey matter of the cerebral cortex. The high medical and social significance of epilepsy is due to the prevalence of the disease (at least 6 million people suffer from it in Europe alone) and the stigmatisation of patients. The incidence of epilepsy in the world population reaches 0.5-1%. At the same time, the prevalence of the disease in different countries can vary greatly - from 1.5 to 50 cases per 1000 population.

The incidence of epilepsy at different ages varies from 30 to 100 patients per 100,000 population .

The prevalence of epilepsy in the general population is 7-10 cases per 1000 population. The prevalence rate is 0.68%. The lifetime risk of developing epileptic seizures is up to 10%. About 10% of the population suffer from latent epilepsy, about 5% suffer 1 epileptic seizure in their lifetime, every 150th person is an epileptic. The disease can develop at any age .

The incidence rates in males and females are almost identical, with some predominance in males.

Stigmatisation of epilepsy worsens education, employment, social and family status of the patient . At the same time, epilepsy refers to a potentially curable disease of the nervous system - 60-70% of patients with first diagnosed epilepsy achieve complete absence of recurrent seizures on the background of adequate treatment with AEDs. Mortality of patients with epilepsy is four times higher than the general population level, sudden death is registered in 7.5-20% of patients.

According to Rakhimbayeva G.S. et al. (2012), the epilepsy incidence rate in the Republic of Uzbekistan is about 87.2 per 100,000 people. However, no total epidemiological studies have been conducted nationwide. We would like to note that the increase in the incidence of epilepsy is most likely due to advances in modern diagnosis and treatment, as well as a decrease in the occurrence of stigma .

Conclusions: Thus, the prevalence of epilepsy both abroad and in the Republic remains at a high level, which is an urgent problem and indicates the presence of unresolved issues in the identification of pathogenetic risk factors for the development of this pathology and its treatment.

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