

# DEGREE OF CORRELATION BETWEEN CLINICAL, NEUROLOGICAL, NEUROPHYSIOLOGICAL SYMPTOMS OF HEADACHES IN WOMEN OF KASHKADARYA REGION

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**Annotation.** Headache is one of the most common symptoms occurring in various diseases for which one should seek medical attention from a neurologist. Bo is the most common form of pain in the world. According to the Washington State Institute for Health Metrics and Evaluation, there were 1.89 billion cases of tension-type headache worldwide in 2016. According to the International Classification of Headache Revision 3 (ISGB-3, 2018), primary pain, in which no organic cause is identified, and secondary pain are due to organic damage to the central nervous system (CNS) or somatic diseases. Craniocerebral tension (CCN) includes a group of other primary cephalgias associated with migraines, autonomic trigeminal cephalgias, and various conditions.

**Keywords.** Headache, central nervous system, migraine, cephalgia

**Relevance.** Recently, the importance of sex hormones in the formation and development of GBH has been studied. The imbalance, especially of female sex hormones, has a certain influence on pain. Their excess reduces the analgesic effect. For example, in the course of experiments it was found that the initial introduction of estradiol to rats against the background of ovariectomy reduces the analgesia of analgin and promedol.

In this regard, it is important to study the hormones of the pituitary-ovarian and pituitary-adrenal cortex axes and the psychological state of women of reproductive age suffering from BPH, not only from the point of view of deepening the understanding of the pathogenesis of GBN. Studying the problem of migraine, the presence of various theories regarding the complexity of etiopathogenesis and the formation of its complex forms: biochemical theory, which speaks of hypoactivity of cell membranes due to a decrease in the level of serotonin in the blood. The prevalence of pulsating attacks of Bo and migraine in women suggests the opposite-change in plasma estrogen levels increases serotonin content [1,8]

The results of studies on the immunologic aspects of migraine and GBN differ in the inconsistency of the findings. However, most of them have shown an imbalance in the neuroendocrine system in patients with primary cephalgia[2,6].

The collected evidence shows that the main efforts of researchers are directed to analyze laboratory parameters rather than evaluating the clinical manifestations associated with these parameters. The prevalence of cephalgic syndrome is not sufficiently studied in patients with a different course of primary headache depending on the climatic conditions of residence. There are clinical, laboratory, diagnostic and climatic comparisons only in isolated studies, and the importance of these factors in predicting the development of cephalgia and chronicization of the process has not been established [3].



Over the last decade, only a few authors have attempted to summarize the available data and assess the influence of factors on the development of primary headaches. Such analysis was performed only in relation to migraine and did not affect other variants of cephalgia [4]. Headaches and migraines are closely related to hormone levels. Therefore, women suffer more often than men (about 3 times more often). Some members of the sex forget about the discomfort with the onset of menopause during sexual intercourse, others, on the contrary, recognize it or experience more severe attacks than before. It should be understood that migraine has many additional symptoms, with such headaches patients complain of sensitivity to light, nausea, vomiting and a general decrease in quality of life. This reduces performance, does not allow you to fully rest, socialize with loved ones. Often physiological problems are followed by emotional problems. A woman is depressed, nervous, unable to concentrate, solving simple tasks that used to take a minimum of time. Thus, headaches in women are associated with many factors, which leads to the need to create a unified diagnostic algorithm using new diagnostic methods, such as transcranial magnetic stimulation, and optimize treatment depending on the results obtained, the relevance of this problem is undeniable and poses many challenges.

**Purpose of the study: to investigate the degree of interrelation of clinical, neurological, neurophysiological symptoms of headache in women of Kashkadarya province**

**Materials and methods of research: to involve women in the study it was necessary to carry out primary initial diagnosis of causative indicators of headache in polyclinics of Karshi city and several private clinics (where women from different districts of Kashkadarya region applied). anamnesis, neurological examination with detailed study of complaints were conducted. The examination was carried out on women who came to the office of a neurologist, gynecologist, or therapist for help with complaints of headache, many of whom had previously been diagnosed with cephalgic syndrome against the background of the following diseases: vertebrobasilar insufficiency, vegeto-vascular dystonia, dissociative encephalopathy, somatoform diseases, and others. The early phase conducted in outpatient conditions allowed adequate selection of patients with GBN and migraine without aura.**

Thus, 141 women were included in the study. Based on the diagnostic criteria of the "international classification of headaches 3rd beta 2018 (ISGB - beta 2018, adapted Russian version)", the main group (141) was divided into groups: tension headaches (THN) - 99 women, and migraines without aura (MBA) - 42 women. In addition, according to the WHO classification, patients are divided into subgroups by age: mature period (period 1) from 20 to 35 years (pp1); mature period (period 2) from 36 to 55 years (pp2). From BMZ - ZP1 (43 women), Zp2 (56 women) and M6A - ZP1 (13 women), Zp2 (29 women). Control group, 39 healthy women without headache: 3p1-21 women, 3p2-18 women. The main (second) stage of the women's study required inpatient follow-up, while all the women included in the study stage were in the neurology department of the Karshi City and Regional Hospital from 2021 to 2024, when they underwent a detailed neurological examination. the dynamics with a description of the anamnesis (anamnesis and the nature of the headache) are checked by specialists: cardiologist, gynecologist, ophthalmologist; additional diagnostic methods were carried out: neuroimaging (brain, in some cases cervical); laboratory methods: standard analysis of blood biochemistry (coagulogram, blood for sugar); blood tests for female hormones (cortisone analysis was mandatory); if necessary, patients underwent ECG, EEG, ultrasound of internal organs (ultrasound pelvic organs). to determine the level of emotional

state (anxiety, depression) A neuropsychological test was performed; an important step was to perform transcranial magnetic stimulation of TMS (D) as a diagnosis.

The treatment of the main group of bo patients is divided into two components; the first is standard drug therapy (efns, 2010). The "European Federation of Neurologists", the essence of which is to eliminate episodes of GB and prevent GB (aspirin, Ketoprofen, ibuprofen, muscle relaxant, sumamigren), which corresponds to many literary scientific publications (Kellstein D.A (2015). Viffen P.J. (2015), Osipova V.V. (2016), Sanaeva M.J. (2020)); the second treatment recommended for the study consisted only of non-drug therapy: transcranial magnetic stimulation (TMS) as treatment. The duration of treatment was 4 months (taking into account the received therapy sessions). The main criteria that are considered indicative and effective are the elimination of attacks of cephalgic pain. For a more reliable determination of the effectiveness of therapy during the optimization of therapy, patients received therapy in the same two directions (drug and non-drug), taking into account the early division into subgroups by age and nature of headache (BMZ and MBA), respectively, divided subgroups and a control group (healthy women without headache), methods of diagnostic studies between indicators  $p = 0.05$ , where the differences are considered statistically significant.

Results of the study: the main (second) stage of the study of women required inpatient follow-up, all women included in the study stage were in the neurology department of the Karshi City and Regional Hospital from 2021 to 2024, where they underwent a detailed neurological examination. dynamics, with a description of the anamnesis (anamnesis and the nature of the headache), is checked by specialists: cardiologist, gynecologist, ophthalmologist; additional diagnostic methods are carried out: neuroimaging (brain, in some cases cervical); from laboratory methods: standard analysis of blood biochemistry (coagulogram, blood for sugar); blood tests for female hormones (cortisone analysis was mandatory); if necessary, patients undergo ECG, EEG, ultrasound of internal organs (with emphasis on ultrasound of pelvic organs); to determine the level of emotional state (anxiety, depression was A neuropsychological test was performed; an important step was to perform transcranial magnetic stimulation of TMS (D) as a diagnosis.

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Patients with GBN were divided into subgroup a (drug treatment in accordance with the international standard, recommendation) - 30 patients, subgroup b (non-drug TMS (L) was used for treatment) - 39 women. The Iba women were divided in the same way: subgroup A consisted of 19 women, subgroup B consisted of 21 women.



The main component of evaluating the effectiveness of therapy was to reduce the frequency and intensity of headaches. The results of the study showed that patients receiving TMS (1) tolerated therapy much better. With traditional treatment, headache intensity indicators significantly decreased, which were most effectively reduced against the background of the use of TMS (1). Starting from the first sessions, the Vash and McGill scale can serve as an important indicator of high effectiveness. In addition, the presented number demonstrates positive dynamics in relation to vegetative characteristics (Wayne, Kerdo), levels of anxiety and depression (Beck Hamilton), where the reliability of the difference in relation to the initial data before the start of treatment is clearly visible.

In both clinical groups (GBN and IBA), during the course of TMS(1) therapy, a positive assessment of the dynamics of reducing the intensity of headaches, a decrease in the frequency (or complete absence) of seizures, and a positive psycho-emotional state were revealed.

The obvious improvement after treatment occurred in the younger group a little earlier than in the older group, as evidenced by emotional uplift, better mood and female communication (they communicated better and more actively during the conversation). Thus, against the background of therapy, vash values in patients with Bo decreased statistically significantly, where  $r < 0.05$ . During a follow-up examination (survey) for 3 months after the start of treatment, the intensity of headache along the average perimeter showed the best indicators in patients with BMZ, 17 women in the same group (out of 69 women) noted a complete absence of pain, According to the McGill questionnaire, their condition in the GBN group was considered "weak".

**Conclusions:** thus, headache is one of the most common symptoms of various diseases that a neurologist must deal with, bo is a form of pain that affects millions of people around the world. According to the Washington State Institute for Health Indicators and Assessment, in 2016, the incidence of GBH worldwide was 1.89 billion people. According to the International Classification of Headaches version 3 (isgb-3, 2018), primary, in which the organic cause has not been established, and secondary, caused by organic damage to the central nervous system (CNS) or somatic diseases. Brain strain GBN migraine, primary bo included autonomic trigeminal cephalgia and a group of other cephalgias associated with various conditions. Bo is a global problem that people face, regardless of age, gender, race or place of residence. According to WHO estimates, the global prevalence of bo among adults with clinical manifestations at least once last year is almost 50%, while 1.7-4% suffer from a chronic form.

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