

MIGRAINE IN REPRODUCTIVE-AGE WOMEN: CLINICAL PRESENTATION, DIAGNOSIS, AND ASSOCIATED RISK FACTORS

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Abstract

Migraine occurs 3 times more often in women than in men and affects 18-25% of women of fertile age. Hormonal changes, especially fluctuations in estrogen levels, significantly affect the frequency and severity of migraine attacks. In women of fertile age, migraine causes not only individual suffering but also affects reproductive health, causes complications during pregnancy, and reduces work capacity. In Western Europe, an average of 27,000 euros are spent annually on the treatment and rehabilitation of women of childbearing age suffering from migraine. Considering these figures, it should be noted that the features of migration in women have long been insufficiently studied. Despite the fact that gender-sensitive data are increasingly being collected, many questions about the pathogenetic mechanisms and approaches to the diagnosis of migration in women of fertile age remain unanswered.

Keywords: women of fertile age, migraine risk factors, morphology, neurology.

Relevance. In the world, migraine can occur in people of any age, but the most active course of the disease in women is noted at the age of 20-45. During this period, factors such as the regularity of hormonal cycles, the use of contraceptives, pregnancy, and the postpartum period have a strong influence on the clinical course of migraine. Unlike men, in women, migraine is often associated with the menstrual cycle and exhibits specific phenotypic features of the disease.

A number of scientific studies conducted in the world have shown that the possibilities of early and accurate diagnosis of migraines are still limited. In addition to traditional clinical diagnostic methods, the use of modern morphological and neuroimaging research methods allows for a deeper understanding of the pathogenetic basis of the disease. Diagnosis based on a comprehensive approach led to a change in the unclear diagnosis of migraine "headache" in 75% of women and increased treatment effectiveness by 60%. Analysis of the conducted scientific research revealed the need to conduct special studies on migration, taking into account the gender characteristics of women of fertile age, since the hormonal and neurophysiological characteristics of the male and female body differ significantly from each other. It is also necessary to take into account the sharp differences in the clinical course of migraines in the period of reproductive age, pregnancy, menopause, and other periods of hormonal transition. These differences served as the basis for conducting a number of epidemiological studies. Comprehensive diagnosis of migraine in women of fertile age, the lack of clear morphological criteria, and insufficient sensitivity of existing diagnostic methods allow us to assert that the problem of migraine is acute in the field of modern neurology [1].

In the field of neuroimaging, issues of structural changes in the brain and functional asymmetry (Department of Neurology Harvard Medical School), biomarkers, principles of personalized medicine, methods of neuromodulation in the prevention of migraine (European Headache Federation, 2021) have been studied. In women of reproductive age, migraine is

distinguished by its polymorphism, a significant diversity of etiology and risk factors, as well as the presence of hormonal factors that increase the risk of its development [2].

In Uzbekistan, a number of successful scientific studies have been conducted aimed at the early detection of neurological pathologies and their complications. A number of other scientists studied modern approaches to the treatment of cognitive impairments in neurological diseases. Factors contributing to the development of migraine include frequent endocrine changes in women during physiological exertion (pregnancy, lactation, menopause, their pathological course), as well as a high frequency of hormonal imbalances developing as a result of interference in the reproductive organs [3]. In the case of organizing rehabilitation measures after an acute attack of the disease with individual approaches focused on women, it is necessary to increase the effectiveness of diagnostic measures by using the existing conditions in many medical institutions, and not the most modern and expensive diagnostic methods. The results of our research undoubtedly affect the quality and accuracy of morphological and neurological studies. However, the lack of an algorithm for predicting the risk of developing migraine in women of fertile age, modern comprehensive diagnostics, and personalized treatment indicates the relevance of the problem [4].

Among neurological diseases, the most common are symptoms associated with headaches. Among them, migraine occupies the first place as a transdisciplinary and multifactorial problem. Migraine is characterized by recurring episodes of hemicrania. The course of migraine varies and can be episodic, subacute, or chronic. According to many authors, the most distinctive sign of the disease is the presence or absence of aura with a wide spectrum of symptoms. This interpretation of the disease appeared in the last decade. Previously, at the beginning of the century, migraine attacks were associated with endocrinological insufficiency, in particular, with a sharp decrease in blood sugar levels (hypoglycemia) against the background of accompanying somatosensory disorders. Today, migraine is considered a genetically determined disease. Cephalgia attacks are usually unilateral, often accompanied by complications such as nausea and vomiting. The trigger for migraine attacks is often increased sensitivity to something, for example, bright light (at night) or a sharp sound. The exacerbation period or episodic period of migraine attack itself is uneven in duration, can last from several hours to several days. The conditions and factors that provoke an attack - hormonal insufficiency, stressful situation, influence of the external environment - all this mainly explains the cause-and-effect mechanism of the disease in women. At the same time, it has been proven that the most common type of migraine, occurring in 80% of cases, is migraine without aura [5].

The term "migraine" comes from the Greek word "hemicranias," which means "half of the head." This precisely characterizes the general nature of the disease, as patients' complaints are related to pain in one half of the head. However, recent studies show signs of bilateral pain, most often in the frontal or occipital part of the head. This causes bilateral sensation and complicates the diagnosis of migraine. A pain attack in migraine is characterized by a pulsating type of pain, which intensifies with sudden movement or physical exertion. Research by scientists on the experimental study of migraine is aimed at studying the pathological mechanism of migraine development. At the same time, factors activating the trigemino-vascular concept were considered as the main causes of the disease.

Conclusions: Thus, we emphasized that an increase in estrogen levels during ovulation causes a migraine attack, while a decrease in estrogen levels leads to migraines without aura.

Conversely, an increase in progesterone levels in women taking contraceptives reduces the frequency of both types of migraine attacks. Researchers also assessed the risk of stroke in patients with migraine.

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