FEATURES OF VESTIBULAR MIGRAINE DIAGNOSIS

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Abstract. Dizziness and headache are two very common conditions in the general population. However, the main disorder associated with dizziness and headache is vestibular migraine (VM) (formerly known as migraine dizziness or migraine-related dizziness) [1]. Despite the prevalence of VM and published diagnostic criteria, it still remains an underdiagnosed condition, which does not allow for specific therapy and obtain the desired positive effect. The cause of this diagnostic problem can be a wide range of additional symptoms, lack of headache in almost half of VM cases, as well as poor knowledge of diagnostic criteria and lack of cooperation between the neurological and otolaryngological community [2].

Aim. Determine the diagnostic criteria for vestibular migraine.

Materials and methods. In the course of our work we have studied and analyzed foreign and domestic literary sources related to this topic.

Result. Although the pathogenesis of VM is still unclear, genetic, inflammatory, and neurochemical mechanisms have been proposed, largely based on the pathophysiology of migraine, as migraine interacts with the vestibular system at many different levels [3]. First of all, many studies have found a coincidence between the vestibular and migraine pathways, as the caudal parabrachial nucleus receives both afferent peripheral nociceptive and vestibular signals of the trigeminal nerve, and the trigeminal nerve affects the inner ear by innervation. There is also evidence of otolithic abnormalities in people with VM. It is also suggested that Purkinje cells in the parafloccule may be inhibited after a migraine episode, which may be an important factor in leading to vestibular migraine.

First of all, vestibular symptoms (as defined by the classification of the vestibular symptoms society) include: spontaneous dizziness (internal-false sense of self-movement or external-false sense that the visual environment rotates or flows);
positional dizziness; dizziness caused by vision; dizziness caused by head movements; and dizziness caused by nausea. In addition, vestibular symptoms do not include unconscious symptoms, confusion, depersonalization, general weakness, or fatigue. Moderate vestibular symptoms are defined as those that interfere with but do not interfere with daily activities, while severe symptoms are those that stop daily activities.

The majority of patients report internal vertigo (73%) and induced vertigo, while external vertigo and positional vertigo are less common. Dizziness is often described as a feeling of rotation, swaying, tilting, rocking and falling. According to another study, vestibular symptoms were mainly described as a feeling of slipping on the ground (40.6%), rocking (27.7%), rocking like a boat (26.7%), or stepping into an empty space (24.8%). Less common dizziness sensations include soaring, flickering, tipping, bouncing, swimming, sliding, and multidirectional movements. [4]

Although migraine is the basis of the disease, and according to diagnostic criteria, migraine symptoms should be present in at least half of the cases along with vestibular symptoms, in some patients with VM headache and vestibular symptoms never occur together.

In cases without headache, other concomitant symptoms, such as age of onset and duration of episodes, indicate that dizziness is equivalent to migraine. Headaches accompany episodes of BM in almost 50% of patients; some report fullness in the head or pressure in the head without a headache. Interestingly, headaches during BM episodes are usually less severe than typical migraine headaches, so patients are more concerned about dizziness than headaches during BM episodes, and other signs of migraine are common, often without headache. Including nausea, photophobia, phonophobia, osmophobia, allodynia and vomiting. If a patient complains of nausea and vomiting during typical migraine headaches, he or she is more likely to experience similar symptoms during VM attacks. The higher prevalence of migraine with aura (MA) observed in patients with VM may reflect the association of MA with vascular disease and posterior circulatory disorders. We would like to emphasize that patients with dizziness should be asked directly about migraine symptoms during their episodes, as they often do not report them voluntarily.

In most patients, general neurological and otological examination is normal in the asymptomatic interval. Approximately 10 to 30% of patients with vestibular migraine have unilateral hypoexcitability to caloric stimulation, and 10% - directed predominance of nystagmus reactions. Such results, however, are not specific to vestibular migraine, as they can also be found in patients with migraine without vestibular symptoms and in many other vestibular syndromes.

Neuroophthalmologic examination may reveal moderate central deficiency, such as persistent positional nystagmus and saccadic harassment, especially in patients with a history of prolonged vestibular migraine. Interstitial nystagmus with shaking of the head was observed in 50% of patients with vestibular migraine. In one study, patients with vestibular migraine experienced nausea after caloric testing four times more often than patients with migraine with other vestibular disorders. [5]

**Conclusion.** The main disorder associated with dizziness and headache is vestibular migraine, but in some patients headache and vestibular symptoms never
occur together, making it difficult to diagnose. Consideration of other clinical criteria for migraine and additional oto- and neuroophthalmological examination may help to solve this problem. Headache and dizziness should also be ruled out as manifestations of other neurological disorders.

References: