

## VESTIBULAR MIGRAINE. PATHOGENESIS, DIFFERENTIAL DIAGNOSIS, TREATMENT METHODS

Zemleanschih Ecaterina<sup>1</sup>, Istrati Nina<sup>1</sup>

<sup>1</sup>Department of Neurology, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova.

**Introduction.** Vestibular migraine (VM) is probably the second most common cause of dizziness, affecting approximately 3% of population. In recent years, the appearance of new studies aiming to understanding the pathophysiology of VM.

**Methods and outcomes.** This abstract presents a detailed analysis of recent articles and research on VM from the sources like PubMed, ScienceDirect and others published in last 5 years.

**Results.** The clinical presentation of VM is diverse. Episodes of dizziness usually last between 5min and 72h, although shorter and longer episodes have been reported. Differential diagnoses include Meniere's disease, benign paroxysmal positional vertigo, brainstem aura, transient ischemic attack, persistent perceptual postural vertigo, and episodic type 2 ataxia. Episodes can be accompanied by other symptoms of migraine, including migrainous headache, photophobia, phonophobia and visual aura. The pathophysiology of VM is incompletely understood. Both environmental and genetic factors are likely to be important and recent studies have suggested possible loci of interest at 5q35 and 22q12. One proposed mechanism is hypoperfusion of the inner ear during migrainous attacks secondary to vasospasm resulting in vertiginous symptoms. Alternatively, episodes may be due to sensitization and activation of the trigeminovascular system leading to release of the pro-inflammatory neuropeptides substance P and calcitonin gene-related peptide (CGRP), which has connections with brain areas associated with processing of nociceptive information as well as thalamic and vestibular-associated cortices. Studies using standard methods have shown that migraine treatments can also be effective for VM. For acute attacks, abortive treatment includes triptans and antiemetics to manage headache and vestibular symptoms. Preventive strategies involve pharmacological options like beta-blockers, tricyclic antidepressants, anticonvulsants, and calcium channel blockers with reduction of triggers, physical therapy and mitigation of comorbidities.

**Conclusions.** VM is a complex disorder with evolving diagnostic and therapeutic approaches. Recent research has significantly improved our understanding of its pathogenesis and management. Further studies are needed to validate novel treatment strategies and refine diagnostic criteria.

**Keywords.** Vestibular migraine; Headache; Meniere's disease; Vertigo.