

Vestibular migraine

What is vestibular migraine?

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The vestibular (balance) system is the sensory system of the body that detects head movement and controls human balance. Disturbances of this system cause symptoms of vertigo (sensations of movement) and dizziness.

Vestibular migraine is a form of migraine in which patients experience recurrent episodes of vertigo, often accompanied by nausea and vomiting. These episodes often coincide with a migraine headache, an aura or phonophobia or photophobia.

Symptoms

Patients usually have multiple vertigo attacks over a period of days, weeks, months or years. Often the episodes occur with a migraine-type headache, but this does not always occur. It is common, but not universal, to have a personal or family history of migraine. The attacks last either seconds to minutes (40% of patients), minutes to hours (30%) or more than a day (30%). It can take several days to recover from an attack. In some patients head movement brings on an episode, and it is relatively common for patients to experience motion sensitivity.

Diagnosis

Vertigo has long been linked to migraine, however formal recognition of the condition as a distinct form of migraine has been slow. Diagnostic criteria have only recently been published in the form of a consensus document of the Bárány Society and the International Headache Society and will be included for the first time in the upcoming 3rd Edition of the International Classification of Headache Disorders.

Diagnosis of vestibular migraine can be difficult as there is significant variability of symptoms. After exclusion of other causes of vertigo, formal diagnosis with *definite* vestibular migraine requires a history of at least 5 episodes of vestibular symptoms and current or previous history of migraine, with at least half of the episodes having typical migraine features (headache, aura, phonophobia/photophobia). Diagnosis with *probable* vestibular migraine is similar, but requires patients to have *either* a history of migraine *or* migraine features during the episode.

Cause

The cause of vestibular migraine and the reasons for the variability of vestibular migraine symptoms are not yet well-understood. There is, however, a large overlap of pathways in the brain that are involved in both vestibular (balance) function and migraine. This overlap is thought to be important in vestibular migraine, whereby an extended disease course or high disease burden might lead to dysfunction in central or peripheral vestibular pathways, or an existing vestibular imbalance might act as a trigger for migraine.

Prevalence

It has been estimated that nearly 1% of the population suffers from vestibular migraine (Furman et al., 2013). About 10% of migraine patients qualify for diagnosis with vestibular migraine, and about 10% of patients referred to neuro-otology clinics for vertigo are diagnosed with vestibular migraine (Furman et al., 2013). Many more females than males suffer from vestibular migraine (up to a ratio of 5:1).

Tests

Although patients typically show some signs during an attack (such as spontaneous or positioning nystagmus [eye movements]), these have usually abated by the time of formal examination. Caloric and rotation chair testing shows that the semicircular canals are hyper-responsive to vestibular stimulation in patients with vestibular migraine.

Treatment

Similar to other forms of migraine, preventative treatment to reduce the severity and frequency of episodes is common in vestibular migraine. A trial of several medications might be required to find the best option for a particular patient. Treatment in the acute phase of an episode can be managed with standard therapy for acute vertigo. Like other forms of migraine, some patients notice activities or foods that trigger episodes. An important element of treatment is reducing or eliminating these triggers where possible.

References

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