Introduction

Migraine is one of the common forms of primary headache. Each patient with migraine on this planet is a variant. The term Vestibular Migraine (VM) is used for patients with a past or current history of migraine, presenting with dizziness as the predominant symptom with or without headache. Prosper Meniere, the French physician who first described the vertiginous syndrome that now goes after his name, was a victim of severe migraine himself. The relationship between these two illnesses was suspected, and written about for many years, under various names such as Migraine- related Dizziness (MARD), Migraine-related Vertigo or Migrainous Vertigo. But it was only in the year 2001 that the International Headache Society and Barany Society reached a consensus on the diagnostic criteria of Vestibular Migraine. Diagnosing vestibular migraine is a challenging task, as Migraine can be present in association with Meniere’s disease [6], BPPV, Epilepsy and often Audio-vestibular investigations and imaging are needed to exclude other peripheral and central vestibular disorders [7].

Case presentation

History: A 31-year-old woman presented with complaints of persistent postural imbalance for two weeks. Superimposed on this, the patient had two short episodes of sensation of dizziness (non-rotatory) which lasted for less than two minutes. These two episodes were not related to change in head position or change in posture. There was an associated mild nausea. There were no aural symptoms. There was no difficulty in walking, speech visual disturbance or any indication of a neurological affliction. She was

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Case Report

Vestibular Migraine-A Diagnostic Dilemma (A Case Report with Review of Literature)

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Abstract

Vestibular migraine has been classified as a specific entity in which vestibular symptomatology presents as part of a migrainous disorder. New and appropriate diagnostic criteria have been proposed by the Barany and International Headache Societies [1]. The diagnosis of vestibular migraine is determined on the basis of the patient history and the exclusion of other causes of vertigo [2]. We present a case of vestibular migraine, which no definitive clinical findings [3] and a few nonspecific VNG abnormalities [4]. After exclusion of other conditions and by applying the diagnostic criteria, a diagnosis of Vestibular migraine was made. The patient is being treated conservatively.

Case summary: A 31-year-old woman complained of a few episodes of dizziness and persistent imbalance over the last 2 weeks. She had a long-standing history of episodes of headaches during which she reported intolerance to bright lights and loud sounds. The headaches as well as dizziness were related to periods of stress and mental exertion. She underwent pure tone audiometry, videonystagmography and MRI of the brain which were all within normal limits. A provisional diagnosis of vestibular migraine was arrived based on the history and by ruling out other causes of vertigo. Interventions: She was advised lifestyle modifications in terms of work life balance creation and measures to managestress [5].

Outcome: The patient is asymptomatic to date. She is receiving prophylactic medication for migraine. Regular visits to the therapist are helping in her overall approach to stressful events in her life.

Conclusion: Vestibular migraine can be diagnosed by a process of exclusion of other conditions after detailed history, evaluation and investigations. Conservative treatment is often adequate.

Keywords: Vestibular migraine; VNG; Lifestyle alterations; diagnostic dilemma; Case report
not on any medications. She had complained of positional vertigo 3 to 4 years ago. This occurred while lying down in bed and turning to either side. The duration of each episode was a few minutes, without related nausea or vomiting. These symptoms spontaneously resolved in 2 weeks. In the past she had migrainous headaches since her school days. The headaches were unilateral, throbbing in nature. She couldn’t tolerate bright light and loud sounds during the headaches. However, the dizziness was not related temporally to the headaches, though the headaches as well as dizziness were related to periods of stress and mental exertion. Clinical examination and Neuro-otology tests: The ears were normal. Romberg’s test revealed normal. A provisional diagnosis of vestibular migraine was made. Acute treatment of the vertigo was not required, as the patient’s symptoms were mild at the time of presentation. She was advised lifestyle modifications including avoidance of stress [8].

Discussion

Vestibular Migraine (VM) is the recommended term for this condition. The previous terms used were migrainous vertigo, migraine-associated vertigo, migraine-associated dizziness/migraine-related vestibulopathy [10]. Despite the notes on association between episodic vertigo and migraine as early as 1873, VM remained a poorly defined entity [11]. In 1979, Dr Robert Slater, a Neurologist described features of a vertiginous syndrome without auditory symptoms and named it as “benign recurrent vertigo”. The spectrum of VM however is still evolving and more clarity is being obtained through investigation and research. Migraine and vertigo are common neurologic complaints in the general population, each being more common in the presence of the other. The link therefore was initially suspected on the basis of epidemiology. Migraine classically is a headache with or without aura though migraine related conditions can be diagnosed without headache. The aura may be abnormal smells, lights or hallucinations. Vertigo is not an aura like symptom, as its duration is too long and may arise during or after the headache. Other auras may co-exist with vertigo.

An MRI of the brain was requested (in view of saccadic vertical smooth pursuit and up-beating nystagmus), which was reported as normal. A provisional diagnosis of vestibular migraine was made. Acute treatment of the vertigo was not required, as the patient’s symptoms were mild at the time of presentation. She was advised lifestyle modifications including avoidance of stress [8]. For Migraine prophylaxis she was advised Tab Flunarizine [9] which was started in a dose of 5 mg per day which was discontinued after a month and she was advised a dose follow up. She is asymptomatic for the past 6 months.

Vestibular symptoms commonly seen are spontaneous vertigo, vertigo induced by position, vertigo on exposure to complex visual stimuli, vertigo on head motion, imbalance, dizziness and extreme sensitivity to motion. Typically, VM is spontaneous and positional or spontaneous transforming into positional. VM can affect children as well adults. Females appear to be more affected than males. Various potential mechanisms of pathogenesis have been proposed like stimulation of trigemino-vestibular connections, migraine induced ischemia of inner ear, ion-channel defect, and endolymphatic hydrops in migraine [12,13]. Our patient is a 31-year-old woman with a history of long-standing migraine who presented with symptoms of dizziness and imbalance. The features of vertigo which lead us to suspect vestibular migraine include the nature and duration of the first episode of positional vertigo as well as the presence of pre-existing migraine since childhood. Positional vertigo is described to occur in vestibular migraine, as either spontaneous or positional or both. It differs from Benign Paroxysmal Positional Vertigo in that the duration of the vertigo episode is longer, lasting often as long as the head position is maintained in the dependant position, the condition often self-limits earlier even without treatment [14]. The patient’s episode of positional vertigo fits with this description, hence our initial suspicion. In addition, she complained of nausea, which along with other vegetative symptoms are often described in VM.

There are no conclusive diagnostic tests. In the acute phase there is minimal or no spontaneous nystagmus [15]. Vestibular testing by VNG usually reveals non-specific abnormalities, however the presence of up beating nystagmus as noted in our patient, has been described as a differentiating feature from other vestibular...
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