

Vestibular Migraine (a.k.a. Migraine Associated Vertigo or MAV)

Migraine is almost as prevalent as hypertension (high blood pressure) and is more common than asthma and diabetes mellitus. More importantly, migraine strikes people during what are expected to be their most productive years: between ages 20 and 40 for most women, with a slightly higher age range for men.

MIGRAINE AND VESTIBULAR DYSFUNCTION

Approximately 40% of migraine patients have some accompanying vestibular syndrome involving disruption in their balance and/or dizziness at one time or another. This may be prior to, during, after, or totally independent of their migraine event. Some interesting parallels exist between migraine and non-migrainous vestibular dysfunction. Many of the food and environmental triggers for migraineurs (see box on page 2) are the same as those for patients with non-migrainous vestibular dysfunction. Hormonal fluctuations, foods, and weather changes (barometric-pressure variations) often exacerbate both conditions. Finally, diet modifications and certain medications used in migraine management may ameliorate or prevent the vestibular component of the migraine. Interestingly enough, some of the analgesic medications for the pain do not resolve the dizziness and medications for the dizziness often do not resolve the painful headache.

Symptoms can include dizziness; motion intolerance with respect to head, eyes, and/or body; spontaneous vertigo attacks (often accompanied by nausea and vomiting); diminished eye focus with photosensitivity; sound sensitivity and tinnitus; balance loss and ataxia; cervicgia (neck pain) with associated muscle spasms in the upper cervical spine musculature; confusion with altered cognition; spatial disorientation; and anxiety/panic.

TRIGGERS FOR MIGRAINE

- Aged or ripened cheeses (examples: Cheddar, Gruyère, Emmenthaler, Stilton, Brie, Gouda, Romano, Parmesan, feta, bleu, Camembert)
- Foods containing large amounts of monosodium glutamate (MSG). Asian foods often have large amounts of MSG.

- Smoked, cured, or processed meats such as bacon, sausage, ham, salami, pepperoni, pickled herring, bologna, chicken livers, and hot dogs
- Food prepared with meat tenderizer, soy sauce, vinegar (except white vinegar), or yeast extract; and food that has been fermented, pickled, or marinated
- Pea pods and pods of broad beans such as lima and navy beans
- Onions, olives, pickles
- Alcohol (especially red wine, port, sherry, Scotch, gin, and bourbon)
- Sour cream, yogurt, buttermilk
- Hot fresh bread, raised coffee cake, doughnuts
- Excessive aspartame (artificial sweetener)
- Chocolate, cocoa, carob
- Nuts, peanut butter
- Certain fruits, including figs, avocados, raisins, red plums, passion fruit, papaya, banana, and citrus fruit
- Excessive tea, coffee, cola

Other triggers

- Hormonal fluctuations
- Barometric-pressure variations
- Sleep disturbance
- Stress
- Medications

RECOGNITION OF MIGRAINE SYNDROMES

Most people associate migraine with severe head pain and a period of incapacitation. However, a large portion of people with migraine often have no accompanying pain,

their predominant symptom instead being vertigo (a spinning sensation) or dizziness/disequilibrium (balance loss), mental confusion, disorientation, dysarthria, visual distortion or altered visual clarity, or extremity paresis. This presentation may result in a visit to the emergency room and extensive laboratory, imaging, and other diagnostic evaluations—often with normal results, which lead to increased confusion and anxiety on the part of the patient. In addition, anti-emetic (anti-vomiting) medications are often given, which may have sedative side effects associated with increased postural instability and increased fall risks.

TREATMENT

The methods believed to have the highest efficacy in the management of migraine dizziness is a combination of medications, vestibular rehabilitation, and lifestyle modifications that include limitation of the risk factors associated with migraine (those related to diet, sleep, stress, exercise, and environmental factors).

MEDICATION

Medications may be prescribed to prevent migraines or to stop a migraine that has already started. Drugs used to prevent frequent migraine attacks include beta-blockers, tricyclic antidepressants, calcium channel blockers, and certain anticonvulsant medications (Depakote and Topamax). Over the last several years, venlafaxine (Effexor XR) has become one of the favored preventative drug treatments for patients with migraine related vertigo. Drugs commonly used to stop migraine are aspirin, ibuprofen, isometheptene mucate, and the triptans, such as Imitrex and Relpax. Some of these medications work by blocking the action of serotonin (a neurotransmitter that causes large blood vessels to contract) or prostaglandins (a family of chemicals stimulated by estrogen that cause blood vessels to expand and contract). Generally the differentiation of whether to use a daily preventive vs an abortive type (taken to stop the already started migraine event) is the frequency and severity of the events.

VESTIBULAR REHABILITATION

The benefits of vestibular rehabilitation are well documented to reduce symptoms and restore function for vestibular-related disorders. With MAV, it is often helpful for the patient to have started the prescribed medications prior to beginning the vestibular rehabilitation course. This may allow for better tolerance to the exercise regimen without exacerbating the symptoms. The intensity of the rehabilitation course is gradually increased to the patient's abilities, yet still at a low enough level so as to not initiate another migraine event.

LIFESTYLE MODIFICATIONS

A consistent effort by the patient to adhere to necessary lifestyle modifications (including avoiding the migraine triggers mentioned above), medication usage as prescribed, and specific tasks and exercises performed independently at home are critical to the success of the overall rehabilitation program. Such adherence is essential for effective reduction of the symptoms and limitations of function caused by migraine associated vertigo (MAV).⁷