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Dizziness is the Bane of Existence of the General Physician, Emergency Room Doctor, and Neurologist

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In this edition of "Striking the Right Balance," Dr. Ken Makus, a private practice neurologist, and his son Donovan Makus, discuss vestibular migraine.

If you are a health care professional and would like to be more involved in all things vestibular, please sign-up for the Vestibular Special Interest Group. Sign-up by emailing JanineAllison.Verge@nshealth.ca to let us know you want to be included. Also, check out our Facebook page for a free list of online vestibular resources at the CAA National Vestibular Special Interest Group page.



For those of us who work in dizzy clinics, dizziness is perhaps less of a daunting diagnostic perspective than for our colleagues. Nonetheless, when I see patients who have vertigo attacks associated with hearing loss, perhaps suggestive of Meniere's disease, or patients with brief attacks of vertigo triggered by position suggesting benign paroxysmal positional vertigo, I do feel a sense of relief. As I often explain to my patients, if I can place them in a diagnostic "box," then it

becomes more likely that we will be able to treat their condition. My purpose in penning this article is to try and convince all of us, myself included, that we should feel a similar sense of relief when diagnosing vestibular migraine and be able convey a sense of therapeutic hope to our patients.

One of the problems with the diagnosis is convincing our colleagues and patients that vestibular migraine is a valid diagnosis. Regardless of what term is used to describe their dizziness by the patient, when a patient presents, like one of my patients did recently, complaining of unsteadiness and imbalance attacks and having to cover up their windows with tin foil during the attacks, one has to consider vestibular migraine. I cannot think of another diagnosis which would explain dizziness associated with light and sound sensitivity. Most other vestibular conditions, if they involve hearing, tend to result in a loss of hearing.

Epidemiologic studies document a close association between vertigo and migraines rendering credibility to the adage that dizzy clinics are full of migraine patients and headache clinics are full of dizzy patients. In assessing patients in these clinics, the most important tool in rendering a diagnosis of vestibular migraine is a good clinical history. It was a good clinic history that led Aretaeus of Cappadocia in 131 B.C to postulate a link between migraine and vertigo. For those bibliophiles interested in the complex clinical presentations of migraine, I recommend Oliver Sacks' book *Migraine*.

When seeing patients in the clinic, I will often show them Dr. Netter's picture of migraine. As an aside, Dr. Netter's life story is rather unique as he was pressured into medicine by his family instead of pursuing his passion for art. Yet the circumstances of the Great Depression pushed him back into art. He has left us an amazing legacy of medical art which includes his drawing of a woman (easily found on the Internet) in the throes of a migraine. This clearly documents that migraine is not just a headache disorder but a condition where patient experiences other symptoms with migraines such as "thick speech, transient aphasia, chills, and vertigo."

One of the problems as it relates to the diagnosis of vestibular migraine beyond the arguments regarding the appropriate term for this condition is whether or not this diagnosis is one of convenience. Phillips et al. in an article in 2010 *Headache* wrote "We believe that patients are currently diagnosed with migraine associated vertigo for want of a better explanation."[1] Of note, Phillips and his coauthors are all experienced "dizzy" docs. However, in my view, von Brevern et al. make the better argument, using epidemiologic data as follows. *They indicate that "because the life-time prevalence of migraine is about 14% and the lifetime prevalence of vertigo is 7%, we can calculate a chance coincidence of 1%.Yet, a large epidemiological study of the general population in Germany found that about 3 times more adults have a history of both migraine and vertigo."*[2]

One of the more interesting case reports complicates the discussion even further; Teggi et al. reports on two patients with vertigo, tinnitus and fluctuating hearing loss in the context of a migraine disorder.[3] Surprisingly, despite having evidence of low frequency hearing loss, these patients did not respond to Meniere's disease therapy but did respond to a combination of topiramate and acetylsalicylic acid. The challenge is that topiramate has mechanistic similarity to acetazolamide and the skeptic might argue that we are simply treating Meniere's disease.

Shepard, in an extensive review of the topic in 2006, suggests that attacks of vertigo lasting seconds to <15 minutes or prolonged attacks greater than 24 hours are more likely to have vestibular migraine rather than Meniere's disease.[4] Intuitively obvious, he also suggested that patients who had vertigo simultaneous with migraine aura symptoms such as visual scintillations also should be classified as having vestibular migraine.

For those skeptics wanting proof of the condition by way of investigations, this is more difficult to

provide. Various others have argued that albeit milder abnormalities can be found on videonystagmography (VNG) testing and even more so rotary chair testing in migraines. Another group claimed that migraine associated vertigo patients were more likely to become nauseated or vomit with VNG testing.

Ultimately for me the question becomes a personal one. Like a good number of my neurologic colleagues, I experience migraines. For me at least, this is perhaps the best proof. I recall walking down the hall one day and for half a minute feeling as if I was walking sideways. I can also get this odd difficult to describe dizziness when in the throes of a migraine, a dizziness that makes me more compassionate to our patient's difficulties in describing the migraine. Finally I have had a prolonged attack of vertigo with no hearing symptoms which for lack of another good explanation, was probably a migraine.

For our patients, the importance of migraine associated vertigo is one of eminent importance. They present to us looking for diagnoses and more importantly, for treatment. The migraine treatments are of relatively low risk and can successfully result in a dramatic improvement in the patient's symptoms and functioning. For myself, having seen vertigo patients improve with treatment of their migraines has been most satisfying and at the end of the day, really the only 'proof' I need.

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Suggested Reading

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