

## Vestibular Issues in General Practice

Published July 8th, 2014

Janine Verge, AuD, Aud(C)

Cheech and Chong, Laverne and Shirley, and Bert and Ernie – it is impossible to think of one partner without the other. What in the world does this have to do with audiology you ask? The cochlea has a partner too – the vestibular system. For those who would prefer to leave vestibular issues to those audiologists who perform vestibular testing or to an ENT, here are six ways to expand your practice and incorporate that undeniable partner of the cochlea you might be avoiding.

### 1. Case History

If a patient has a history of dizziness it is a good idea to ask them more specific questions about the kind of dizziness they are experiencing. The clinician needs to know the type of dizziness (light-headedness, imbalance, subjective vertigo [spinning in head], or objective vertigo [objects in room appear to spin]), how long the dizziness lasts (seconds, minutes, hours, days, constant), when the dizziness occurs (e.g., positional, with quick head turns, when getting up too quick, with migraines, with feelings of panic, drop attacks, with new eye glass prescription, out of the blue), how long they have had the dizziness for, any ear-related symptoms that occur with the dizziness (e.g., plugged feeling, tinnitus, fluctuating hearing), and any other symptoms that occur at the same time (e.g., nausea or vomiting, heart palpitations, stress). A good case history is the key to figuring out what kind of testing needs to be done, where the patient should be referred, and the potential cause of the dizziness. If you find your patient gives a poor case history teach them some dizziness terminology and give them a dizzy diary to fill out to help monitor their symptoms over time. You can find a good example at <http://otolaryngology.medicine.dal.ca/clinical/dizziness.htm>

If you think everyone with dizziness has Meniere's disease, you should pull up your socks and read up on some other common disorders and their treatments (e.g., BPPV, vestibular neuritis, labyrinthitis, migraine related vertigo, concussion, SSCD to name a few). Three great references for learning about vestibular disorders are [www.dizziness-and-balance.com](http://www.dizziness-and-balance.com), <http://blog.dizzy.com/category/dr-gans-blog/> and [www.asha.org/aud/articles/CentralVestib/](http://www.asha.org/aud/articles/CentralVestib/).

If you are not sure about what kinds of vestibular tests that are available, consider taking your local audiologist who specializes in vestibular testing out for lunch. They can fill you in on all the details and let's face it – we deserve a little break!

### 2. Immittance Testing

When you are performing acoustic reflexes or tympanometry, it is important to observe if the patient reports any dizziness or nystagmus (involuntary eye movements). Tullio's phenomenon (dizziness with loud sounds) and Hennebert's sign (dizziness with pressure changes) can point to disorders such as Meniere's disease, third window lesions (e.g., SSCD), or perilymphatic fistulas.<sup>1</sup> If any dizziness or nystagmus occurs during testing, red flag it on your report as well as which ear created the symptom.

If your patient is reporting hyperacusis, ask them further questions about how loud sounds make them feel. If it makes them nauseated or dizzy, they should be referred to an ENT who might request vestibular testing to further investigate the cause of their sound sensitivity.

### **3. Audiometric Testing**

Some patients may be confused about why they are getting their hearing tested when their main complaint is dizziness. Explain to them how the cochlea and the vestibular system are partners and how a hearing test can help give more information about what is causing their dizziness (you can leave out the Cheech and Chong reference).

When performing the hearing test, make sure that you do both air and bone conduction even if the thresholds are within normal limits. It is important to find the true bone threshold and to not stop at 0 dBnHL. Third window lesions (e.g., SSCD) can show unexplained air bone gaps (enhanced bone conduction) in the presence of acoustic reflexes, present OAEs, and normal tymps.<sup>2</sup> If you find this pattern, get more information from the patient about whether or not they have autophonia (e.g., can hear internal body sounds like their eyes move, their blinking, the strike of their heels, their chewing is very loud, or their voice sounds different or echoey), have fullness in their ears, have a history of head injuries, tinnitus, and type of dizziness. You should suggest a referral for VEMP testing (if available), and a referral to an ENT. The patient may receive a high resolution computed tomography scan to verify the presence of a dehiscence (lack of bone).

The tullio phenomenon can also occur during hearing testing. If a patient reports feeling dizziness or nystagmus with testing at high dB levels make sure to include this in your report.

### **4. Counselling**

You have the ability to really make a difference in lives of your patients with vestibular problems. It is important to consider how difficult it must be to live with dizziness. Sometimes patients will report having trouble getting a diagnosis despite many years of waiting, seeing multiple professionals, and having many different tests. Vestibular problems can be an invisible problem where people feel terrible on the inside but look normal to their family, co-workers, and friends. Educating patients about dizziness terminology, using a dizzy diary, how to talk to their doctors, and giving patient handouts describing common causes of dizziness and vestibular disorders can be very helpful. A great website that has free patient handouts and a forum for patients to talk to each other is [www.vestibular.org](http://www.vestibular.org).

Sometimes, vestibular problems can cause patients to feel frustrated, anxious, and even depressed as they struggle with waiting for a diagnosis or for their symptoms to improve.<sup>3</sup> Some patients who have a pre-existing mental health issue may report greater difficulty in trying to cope with a new found vestibular problem. It is important to give your patient a chance to talk about their feelings and to document on your report any reported significant struggles with their condition. This may help highlight the need for a possible referral to a psychologist or psychiatrist. The Hospital Anxiety and Depression Scale can be a useful tool in detecting patients that may need to be referred.<sup>4</sup>

### **5. Vestibular Rehabilitation**

There is strong evidence to show that vestibular rehabilitation can provide functional improvements in balance, visual acuity, and gait stability.<sup>5</sup> It is important to know which Physiotherapists in your community are interested in this specialty to help educate your patients where to seek help. Find out both private and public locations (for patients with and without

coverage), the referral procedures, and the typical wait times.

If your patient started vestibular rehabilitation but stopped, you may be able to help them by finding out why. Some people stop doing their exercises because it enhances their symptoms too much. These patients might be overdoing their exercises in an attempt to get better faster. You might also find some people are afraid of doing the exercises out of fear of falling or experiencing any dizziness. It is important to highlight that dizziness is a normal part of doing vestibular exercises and that the progress happens over time – not over night. It is normal to feel that progress happens in steps (two steps forward, one step back). Educating your patients on the importance of continuing their exercises, doing the exercises at an appropriate level, and promoting communication about their symptoms to their physiotherapist is key to getting better.

## 6. Fall Prevention

The Public Health Agency of Canada<sup>6</sup> reported some startling statistics about seniors and falls. They reported that one in three seniors will experience a fall each year, and half of those more than once. They also highlighted that 20% of injury-related deaths among seniors can be traced back to a fall. With a few simple steps, you have the chance of saving the life of your patients with dizziness which is a risk factor for falls. If that is not reason enough to include fall prevention in your practice, you might also decrease the chances of a serious injury, reduce feelings of isolation and fear, and stop someone from prematurely being put in a nursing home.<sup>7</sup>

There are three main ways you can help patients who are at risk of falls. First, ensure that your clinic is a safe place for your patients to visit. There should be a wheelchair available for use for visitors, walking areas should be free of hazards, the building and office should be fully accessible, and any falls that happen in the clinic should be documented and reported.

Second, your case history should always include a question about a history of falls or near falls. A history of falls is one of the biggest indicators that your patient may fall in the future.<sup>8</sup> Make sure to include a history of falls on your report to highlight to the referring physician or family doctor your patient may be at risk.

Third, educate your patient about fall prevention. This can include fall prevention posters in your waiting area, fall prevention handouts which include a home safety checklist and lists of risk factors for falls, and what fall prevention workshops or clinics are available in your area. Let your patient know how physiotherapists can help in reducing falls with rehabilitation, suggesting appropriate exercise programs, and the proper use of assistive devices (e.g., canes or walkers). Occupational therapists can also help by providing fall risk assessments of your patient's home.

So there you have it – six important steps highlighting vestibular issues in a general practice setting. Hopefully these tips will enhance your practice or at the very least increase my chances of getting a free lunch.

## References

1. Colebatch JG, Day BL, Bronstein AM, et al. Vestibular hypersensitivity to clicks is characteristic of the tullio phenomenon. *J Neurol Neurosurg Psychiatr* 1998;65:670–78.
2. Castellucci A, Brandolini C, Piras G, and Modugno GC. Tympanometric findings in superior semicircular canal dehiscence syndrome. *Acta Otorhinolaryngol Ital* 2013;33(2):112–20.
3. Mira E. Improving the quality of life in patients with vestibular disorders: The role of medical treatments and physical rehabilitation. *Int J Clin Pract* 2008;62(1):109–14.
4. Zigmond AS and Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand*

- 1983;67(6):361–70.
5. Badke MB, Shae TA, Miedaner JA, Grove CR. Outcomes after rehabilitation for adults with balance dysfunction. Arch Phys Med Rehabil 2004;85.
  6. The Public Health Agency of Canada: Division of Aging and Seniors. You CAN prevent falls!. Ottawa: Author. Available at:  
[www.phac-aspc.gc.ca/seniors-aines/publications/public/injury-blessure/prevent-eviter/index-eng.php](http://www.phac-aspc.gc.ca/seniors-aines/publications/public/injury-blessure/prevent-eviter/index-eng.php); 2011.
  7. Public Health Agency of Canada: Division of Aging and Seniors. Report on seniors' falls in Canada. Ottawa: Author; 2005.
  8. Rubenstein LZ, Powers CM, and MacLean CH. Quality indicators for the management and prevention of falls and mobility problems in vulnerable elders. Ann Intern Med 2001;135:686–93.