Health Medicine

The 3Ds: Diagnostic Dilemma of Dizziness



By Wendy Webb Schoenewald, PT, OCS

Helping people resolve vertigo and dizziness symptoms is my passion. For the past 30 years at WWSPT, I have had the privilege of helping thousands of members of the community alleviate these symptoms.

Over the past few decades, the field of Vestibular Rehabilitation (VR) has greatly expanded. Many more researchers are brilliantly discovering new and effective treatment advances to help physical therapists diagnose and care for patients suffering from Vestibular Dysfunction. I strive to stay current on new studies involving vestibular diagnosis of benign paroxysmal positional vertigo (BPPV), vestibular migraine, Meniere's disease, and balance issues, so I can provide our clients with the best care. My staff shares this passion, and we work together to achieve the best outcomes for our patients. How we evaluate our patients to achieve an accurate vestibular diagnosis is essential to their recovery.

What is the vestibular system? The inner ear is a tiny, but complex, neural structure that coordinates with our eyes to create clear vision, guide our muscles and postural system to help us move about with good balance, and let our brain know the direction in which we are moving. The semicircular canals are like a gyroscope sensing rotation, and the otoliths sense acceleration and tilting. Together, they allow us to walk, run, and play without thinking about it.

When Vestibular Dysfunction occurs, patients have symptoms of dizziness, vertigo, lightheadedness, nausea, and falling. They have difficulty moving and feel poorly. There are many vestibular system disorders that occur together including the most common problem, BPPV, which often follows an attack of vestibular neuritis. Meniere's disease and vestibular migraine have similar symptoms of tinnitus, headaches, and vertigo attacks lasting 2 to 24 hours. These symptoms cause imbalance and distress for patients.

With 30 years of experience in the VR field, I often see patients who have been to 4 to 5 physicians or had several ER visits because of acute vertigo which can present like a stroke with sudden onset. The most common disorder, BPPV, is far from benign to these patients suffering with debilitating or even disabling symptoms of spinning, nausea, vomiting, and imbalance. Patients have a variety of symptoms on a given day, making it difficult for healthcare providers to diagnose which type of vestibular disorder is plaguing them.

At this point, when dizzy patients are referred to WWSPT, they are frustrated and have begun to limit their lifestyle to avoid activities that they believe have caused an attack in the past. For example, patients avoid sleeping on a certain side because rolling to that side caused a vertigo attack 3 years ago. Simple avoidances for fear of triggering another episode can shrink their world.

Our role as specialists in the field of VR is to become a detective. Not the type you see on TV that finds the killer or the stolen property, but a medical detective who works with your physicians to gather history and information about the tests performed. We do this by taking a detailed history and listening to a patient's description of episodes. During the evaluation, we piece together bits of information and have the ability to connect certain things that may impact symptoms, such as stress and sleep. We may also help patients correlate other symptoms that could be related to their dizziness. For example, patients might not realize that their headaches or tinnitus are related to their episodes of vertigo. Connecting the obvious and



not-so-obvious dots will help determine tests to perform.

We have several types of technology to assist us. The first is called a videonystagmoscope, which is an infrared video camera within goggles placed on the patient' eyes. These goggles allow for observation of the eyes' nystagmus patterns during an exam such as the Hallpike Dix positional test. While wearing the goggles, the patient only sees darkness, which gives us a different view of how the eves and nervous system work in the dark compared to room light.

The video of the nystagmus pattern is crucial in helping us discern one vestibular disorder from another and determine whether the brain is more involved than the inner ear. Interpretation of the nystagmus takes skill and experience since no two patients are the same and vestibular disorders commonly overlap. For BPPV, the infrared goggles are used to diagnose which of the three semicircular canals is causing the vertigo, and they help therapists accurately perform treatment with maneuvers such as the Epley. By watching the nystagmus pattern during maneuvers, the technology allows us to see if our treatment choice is effective.

Another technology that is helpful is the Video Head

Impulse Test (vHIT) which looks at the patient's eyes in room light and measures the eyes' reflexive response to quick head movements. It screens for vestibular disorders and can be helpful in diagnosing inner-ear issues from central pathways of the brain linked to the ear. The information from this testing can help therapists adjust their treatment to allow patients the best recovery. My colleagues and I at WWSPT are specialists in diagnosing and treating all types of vestibular disorders. The key is thorough history and clinical exam, coupled with the latest technology to provide an accurate diagnosis and ensure we choose the best options for recovery. Find more information about WWSPT at www.wwspt.com.

