Vertigo

CONFLICT BETWEEN FEAR OF FALLING AND THE DESIRE TO FALL.

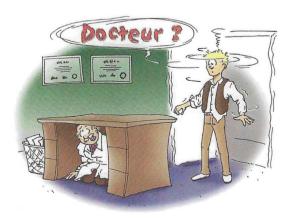


Editorial

There can be few physicians so dedicated to their art that they do not experience a slight decline in spirits when they learn that their patient's complaint is Dizziness.

Vertigo is used by health professionals to describe the feeling that you or the world around you is moving, when actually it is not. Vertigo of a vestibular cause is common, affecting 5% of adults.

Dizziness and imbalance are common complaints among the general population affecting around one-third of people over the age of 65 years and can result from a range of causes spanning many medical disciplines.



Falls in the elderly are commonplace & debilitating and are attributable to multi-sensory balance disorders with vestibular dysfunction being an under-diagnosed but treatable cause. At the other end of the spectrum, dizziness and balance disorders in the adolescent and young adult population requires tailored input due to their specific physical, psychological, emotional and intellectual needs. Most balance disorder patients are mentally distressed and many of them have some degree of cognitive impairment that needs medical attention. Merely suppressing the vertigo or imbalances without correcting the causative disorder and the co-morbid conditions is unethical and medically unjustifiable. Diagnosing the underlying disorders is not difficult with the correct diagnostic modalities and history taking methods that are now available.

Dr. Neeraj Kasliwal

What is Vertigo?

Illusion of spinning sensation of self or surroundings, usually due to disturbance of vestibular system is known as vertigo



Dizziness VS Vertigo

| Dizziness | Vertigo | | |
|---|--|--|--|
| Light HeadednessHeart/ Vascular ProblemStroke | Inner Ear disorderViral InfectionChanges in Head posture | | |

Epidemiology

- Dizziness is one of the most common complaints in the primary care setting.
- 3rd most common complaint after chest pain & fatigue.
- 20% of the general population, aged 18yrs-75yrs and above, reports dizziness.
- Incidences increases with age.
- Risk Factor for functional decline.

CLASSIFICATION of VERTIGO

| Peripheral | Central | |
|--|--|--|
| Peripheral vertigo occurs more frequently and is primarily due to infection, inflammation, and/or stimulation of various auditory nerves and organs. | Central vertigo commonly occurs due to migraines, cerebrovascular disease, or cerebellopontine angle tumors. | |

Signs & Symptoms of Peripheral and Central Vertigo

| Peripheral | Central |
|--|---|
| Sudden Onset Intermittent with severe symptoms Affected by head position and movement Nausea and Vomiting more frequent and severe Motor function, gait and co-ordination typically intact | Gradual onset Constant with milder symptoms Unaffected by head position and movement Nausea and Vomiting less predictable Motor function, gait, instability and loss of coordination frequent |

ENT Vertigo

| Condition | Episodic | Time Course | Hearing Loss | Exacerbating Factors | Associated Symptoms |
|--|----------|---------------------------------|---------------------|---|--|
| Benign paroxysmal positional vertigo (BPPV) | Yes | < 1min | No | Position changes such as lying down, turning over in the supine position, or looking upward | None |
| Labyrinthitis | No | Constant, lasting days to weeks | Yes | Head movement | Nausea/ Vomiting |
| Vestibular Neuritis | No | Constant, lasting days to weeks | No | Head movement | Nausea/ Vomiting |
| Meniere's Disease | Yes | 20 min - 12 hrs | Yes, fluctuating | None | Aural fullness, hearing loss, roaring tinnitus |
| Vestibular Migraine | Yes | Minutes to days | No | Stress, sleep deprivation, visual stimuli, motion | Headache, photophobia, Phonophobia, visual aura |

Management

Investigations

- Audiometry for Cochlear function
- Tuning Fork Test
- Videonystagmography (VNG) with Caloric testing
- Posturography
- Brain-stem evoked responses
- Possible neurological cause: CT/MRI

Treatment

Treatments

- Specific treatment of the underlying condition
- · Reassurance, information, counselling
- Vestibular Rehabilitation
- Non- Specific drug treatment of acute vertigo, nausea and vomiting
- Transtympanic aminoglycoside application
- Surgery

Your vestibular system includes organs, nerves, and structures that are in your inner ear. It is your body's main center of balance. The vestibular system works together with your eyes, sense of touch, and brain. Your brain communicates with the different systems in your body to control your balance.

VESTIBULAR SYSTEM



EARS

The otolith organs and the semi-circular canals detect movement of the head in space



EYES

Keep visual fixation with quick movements and nerves relay this to the brain



BODY

Body sensors in our musculoskeletal system relay information to the brain about where they are



BRAIN

The computer that sorts it all out and relays messages back to keep us balanced

Advance Technology for Evaluating Vestibular Disorders

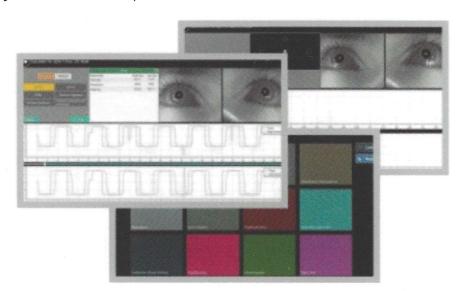
Videonystagmography (VNG)

What is VNG?

VNG stands for videonystagmography, a most advanced diagnostic test for a balance disorder. VNG testing can possibly uncover the root cause of your vertigo, dizziness or balance issues. This test measures a type of involuntary eye movement called nystagmus. Nystagmus causes your eyes to move from side to side or up and down, or both. It happens when the brain gets conflicting messages from your eyes and the balance system in the inner ear. These conflicting messages can cause dizziness.

VNG test for vertigo is the latest advancement in the technology of optics. Neural pathways connect the balance mechanism of the inner ear to the muscles of the eye. If there is any kind of disorder in the balance mechanism, it can lead to quick eye movements. Patient is required to wear a pair of glasses in which the camera is attached. With the help of the inbuilt camera, eye movements of the patients are recorded.





VNG test is the best solution to detect such an issue.

What are its Advantages?

- 1. VNG is a well-tolerated, non-invasive test to measure and record eye-movements
- 2. It visualizes and records the exact direction of the movements of the eye
- 3. Useful for assessing positioning and positional nystagmus
- 4. VNG tracings are clean and do not deviate from the baseline of eye-movements; the analysis and interpretation are therefore more accurate
- 5. VNG helps define treatment strategies, monitor the progression of therapy and to plan surgery

ENT SPECIALISTS

Dr. Neeraj Kasliwal

Dr. Anirudh Kasliwal

Dr. Ashwath Kasliwal

Written and Compiled by Dr. K.C. Kasliwal's ENT Centre

🗋 +91 94140 63455 📞 +91 141 2361210, 2360331

