Vertigo

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10-minute consultation

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Useful reading

Hanley K, O'Dowd T, Considine N. A systematic review of vertigo in primary care. *Br J Gen Pract* 2001;51:666-71

Hilton M, Pinder D. The Epley (canalith repositioning) manoeuvre for benign paroxysmal positional vertigo. *Cochrane Database Syst Rev* 2002;(1):CD003162

A 60 year old woman reports sudden dizziness when she arises from bed. She feels nauseous and had been vomiting. She recently had a severe cold. Her vomiting has settled, but she is dizzy on turning her head to the right. She is frightened to leave her house.

What issues you should cover

Taking a history—Dizziness means different things to different patients. Elicit a precise description of her symptoms by providing alternatives: Does the room spin around (vertigo)? Do you feel unsteady (dysequilibrium)? Do you feel like you may faint (presyncope)? Do you feel lightheaded?

- Vertigo is an illusion of movement, often horizontal and rotatory. Associated nausea and vomiting indicate a peripheral rather than central cause. Studies show that about a third of cases of dizziness are vertigo.
- Dysequilibrium, which occurs when the brain receives inadequate information about the body's position from the somatosensory, visual, and vestibular systems, may result from peripheral neuropathy, eye disease, or peripheral vestibular disorders.
- Presyncope is caused by cardiovascular disorders reducing cerebral perfusion.
- Lightheadedness is non-specific and hard to diagnose; it may result from panic attacks with hyperventilation.

Examination—Include cranial nerves, in particular funduscopy for papilloedema or optic atrophy (II), eye movements (III, IV, and VI), corneal reflex (V), and facial movement (VII). Nystagmus is common in acute vertigo. Check cerebellar function (past pointing, dysdiadochokinaesia). Testing vibration sense (a 128 Hz tuning fork on the ankle) is useful for screening for peripheral neuropathy. Otoscopy is unlikely to be abnormal without hearing loss, pain, or discharge. Hallpike's manoeuvre will confirm benign paroxysmal positional vertigo (BPPV).

Diagnosis—With a clear description of vertigo, the precipitants and time course (onset, frequency, and duration of attacks) are often diagnostic (table). Vertigo of central neurological origin is uncommon and less likely to be horizontal or rotatory. Rarely, vertigo results from a brainstem cerebrovascular accident, intracranial lesion, or migraine. "Red flag" symptoms should alert you to a non-vestibular cause: persistent, worsening vertigo or dysequilibrium; atypical "non-peripheral" vertigo, such as vertical movement; severe headache, especially early in the morning; diplopia; cranial nerve palsies; dysarthria, ataxia, or other cerebellar signs; and papilloedema. Her dizziness on arising from bed suggests postural hypotension, while vomiting suggests peripheral vestibular disease. Her cold suggests vestibular neuritis, but vertigo brought on by head turning suggests BPPV. Anxiety may impede central adaptation. This case shows the importance of a good history and how a single diagnosis may not be reached.

What you should do

- Explanation and reassurance are important, as anxiety exacerbates vertigo. Persistent dysequilibrium should be overcome by central adaptation, but anxiety may prevent the required level of activity.
- Drugs that sedate the vestibular-brainstem axis, such as prochlorperazine, relieve symptoms. Sublingual preparations help when vomiting is severe. Avoid prolonged use, as they prevent central compensation.
- Betahistine may improve perfusion of the labyrinth and is used prophylactically in Meniere's disease. There is little evidence of its efficacy.
- The Epley manoeuvre usually resolves BPPV (see the BPPV section at www.dizziness-and-balance.com). A recent Cochrane review confirmed its efficacy. Untreated BPPV usually settles within months.
- The Cawthorne-Cooksey and other vestibular rehabilitation exercises promote central compensation and help resolve persistent dysequilibrium. Dysequilibrium due to Meniere's disease or BPPV may not respond, as it is not possible to habituate to fluctuating vestibular function, so may need specific treatment. Balance rehabilitation is important in elderly people, in whom dizziness is invariably multifactorial.
- Refer her to an ear, nose, and throat specialist if she has hearing loss or recurrent or persistent vertigo with peripheral vestibular characteristics or if otoscopy findings are abnormal.

Common causes of vertigo

Condition	Description and time course	Tinnitus	Hearing
Benign paroxysmal positional vertigo	Vertigo associated with head turning or rolling over in bed. Often accompanied by nausea and vomiting. Resolves over days but is followed by dysequilibrium. There may be a history of head injury	None	Not affected
Meniere's disease	Triad of vertigo, tinnitus, and hearing loss, often associated with a pressure sensation in affected ear. Attacks last from 1 to 24 hours but are often followed by persistent dysequilibrium	Present; often worsens over time	Hearing loss comes and goes at first but is eventually permanent
Vestibular neuritis (often misdiagnosed as labyrinthitis)	Recurrent vertigo attacks lasting hours or days. Followed by dysequilibrium, while central compensation occurs. A preceding viral illness is common	None	Not affected

This is part of a series of occasional articles on common problems in primary care

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