Medical and Psychiatric Causes of Episodic Vestibular Symptoms

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KEYWORDS

• Episodic vestibular symptoms • Orthostasis • Panic disorders
• Medication adverse effects • Syncope • Dizziness • Vertigo

KEY POINTS

- Episodic dizziness and vertigo symptoms present a diagnostic and therapeutic challenge.
- When taking a history from a patient with episodic dizziness symptoms, a comprehensive discussion regarding associated symptoms and potential alleviating or aggravating factors is crucial because it is the pattern of symptoms together, rather than the nature of individual symptoms alone, that is crucial for differential diagnosis.
- After specific structural/vestibular causes are ruled out by history, physical examination, and other appropriate diagnostic testing, it is reasonable to consider causes such as orthostatic dizziness, postural orthostatic tachycardia syndrome, presyncope, and panic attacks as fully or partially explaining the episodes.

CASE SCENARIO

A 72-year-old woman presents to the emergency department with episodic dizziness at approximately noon. She cannot identify any provoking factors. The episodes have been occurring for some time, at least for the past several months, and occur with varying frequency, sometimes daily, other times, weekly. At times, she feels a lack of balance during these episodes, but has never fallen or lost consciousness. She is not sure if she has noticed any associated spinning sensations during the episodes. She reports that the episodes vary in intensity ranging from a minor irritant to intensely

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distressing. The symptoms are present currently, yet mild in intensity, and she first noticed them today after completing breakfast. The dizziness is occasionally associated with headache and at other times nausea. She denies a history of migraines and current headache, focal weakness, numbness, nausea, or other recent illness. She reports a past medical history of hypertension, transient ischemic attack (TIA), coronary artery disease, fibromyalgia, anxiety, and colonic diverticulosis. Her current medications include lisinopril, gabapentin, aspirin, metoprolol, and atorvastatin, and there have been no recent changes in these medications. She denies the use of alcohol, tobacco, or illicit drugs and lives with her husband, who has mild cognitive impairment. Her family history is negative for stroke or central nervous system malignancy. Her complaint of dizziness persists. On physical examination, her pulse is 72, and respirations 16, blood pressure 133/74, temperature 37.0°C, and pulse oximetry 99% on room air. The blood pressure is repeated while sitting and standing and she has a 23-mm Hg drop in her systolic pressure. Her symptom intensity does not change at all during the orthostatic check. Her general medical examination is entirely within normal limits, and her cardiac examination specifically reveals normal S1 and S2, along with the absence of murmurs, rubs, and gallops. On neurologic examination, her mental status reveals she is oriented to place, person, time, and situation and conversant. On cranial nerve testing, she has normal pupillary responses; her visual fields are full to confrontation, and she has normal facial strength, normal speech, and normal facial sensation. Her extraocular movements are intact and she has no spontaneous or gaze-evoked nystagmus or skew deviation. She has 5/5 strength proximally and distally in both upper and lower extremities; sensation is intact to pinprick throughout all modalities tested. Deep tendon reflexes are 2/2 in the upper and lower extremities. Finger-to-nose and heel-to-shin testing is accurate. Casual gait is tested and intact. Dix-Hallpike testing does not provoke any nystagmus or symptoms. She is placed on a cardiac monitor and normal sinus rhythm without ectopy is observed. An intravenous line is inserted and blood tests are sent to the laboratory. Her complete blood count, renal function, hepatic function, thyroid function, and urinalysis are normal. A 12-lead electrocardiogram is obtained and is normal. Her symptoms slowly start to improve, although they do not resolve completely, and she requests discharge to home. Her husband presents to the room from their house; however, the nurse is uncomfortable discharging the patient to him, because he is extremely confused. The patient reports to you that this is atypical, and he normally can attend to all activities of daily living and converse quite fluently. You have the husband registered as a patient; his examination reveals no focal deficits, but he and his wife report he has had new-onset headaches over the past 6 weeks. Blood cooximetry obtained from husband and wife confirms an elevated carbon monoxide level. The fire department goes to the home and finds a malfunctioning furnace. After 4 hours on oxygen by high-flow mask, both patients have returned to baseline, and the husband's headache and wife's dizziness have completely resolved.

INTRODUCTION

Dizziness and vertigo are among the most common presenting patient complaints in ambulatory settings. Specific vestibular causes are often not immediately identifiable. The focus of this article is the potential causes of episodic dizziness and vertigo from other medical and psychiatric conditions. A general approach for arriving at the more specific and potentially more serious causes is provided in other sections of this issue addressing those disorders. The important vestibular causes of episodic dizziness and vertigo include benign paroxysmal positional vertigo (BPPV), vestibular migraine, and