

Vertigo: A Common Problem in Clinical Practice

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“Doctor, I feel dizzy.” Often heard and not welcomed, this statement poses quite a challenge to the general practitioner (GP). Dizziness is defined as a general term for disorientation. Vertigo is a subtype of dizziness that is characterized by an illusion of movement.¹ However, dizziness and vertigo are often used interchangeably by the patient. Vertigo/dizziness is a multisensory syndrome and not a disease entity.² Diagnostic and therapeutic strategies to treat vertigo/dizziness need to be customized to the individual patient’s needs.

Vertigo/dizziness accounts for more than 2% of all consultations in general practice^{3,4} and emergency departments.⁵ Vertigo is 1 of the 10 most common symptoms for which patients seek medical advice. Most of these patients are elderly people, with an increased prevalence up to the age of 50 years; approximately 30% of 65-year-old people experience recurrent episodes of vertigo.^{6,7} Disturbances in balance increase the risk of falling considerably and, therefore, the rapid and appropriate treatment of dizziness/vertigo is necessary to prevent any associated increase in morbidity or mortality.

Classification of Vertigo

Different classifications of vertigo exist, sometimes making a common communication platform within the

medical community difficult. From a practical point of view, vertigo can be divided into specific (true) vertigo, originating in the vestibular system; and nonspecific and nonvestibular vertigo/dizziness, formerly subdivided into disequilibrium, presyncope, or light-headedness. Vertigo is a multisensory syndrome (Figure 1); when originating in the vestibular system, it is often subclassified into peripheral or central vertigo and termed neurological vertigo. The most prevalent diseases classified under vestibular vertigo are benign paroxysmal positional vertigo (BPPV), Meniere disease, vestibular neuritis, and migraine-associated vertigo.^{1,8,9} Nonvestibular vertigo or dizziness is not well-defined in the literature because of the many diseases associated with this symptom. Generally, dizziness is described as unsteadiness, imbalance,

disequilibrium (tendency to fall), and presyncope (light-headedness). The main causes are multisensory or balance disorders (due to sensory deprivation, muscle weakness as the result of minimal muscular activity, degenerative processes of sensory organs and pathways, drugs, alcohol abuse, or vitamin deficiencies). Additional causes are neurological or mental disorders (ie, dementia of various origins, anxiety, panic, agoraphobia, and stress), cardiovascular disorders (ie, cerebrovascular disease, cardiac arrhythmia, stroke, transient ischemic attack, hypertension, and orthostatic hypotension), adverse effects of therapeutic drugs (including antihypertensive and sedative agents), and cervical vertigo.¹⁰⁻¹⁵

Epidemiology

In epidemiological studies, patients experiencing nonvestibular vertigo/dizziness within the group of all vertigo cases range from approximately 20% to 80%. Research in primary care settings usually reports a higher percentage of nonvestibular vertigo: 88% of the cases tend to be chronic, and 44% of those patients visit the GP more than once (≤ 15 times). Referral rates to specialists (otorhinolaryngologists and neurologists) are low.¹⁶⁻¹⁹ In an investigation of 7609 patients diagnosed as having vertigo in 138 German GP practices over 18 months, only

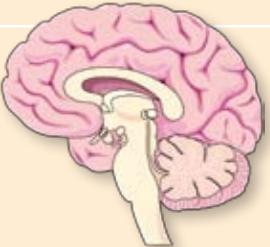
Vestibular function	Spatial orientation Motion perception	Vestibulo-ocular reflex	Posture	
Physiological vertigo	Vestibular	Optokinetic	Somatokinetic	
				
Pathological vertigo	<ul style="list-style-type: none"> • Peripheral labyrinthine lesion • Peripheral eighth nerve lesion • Central vestibular lesion • Central vestibular pathways dysfunction 			
Affected central nervous regions	Parietotemporal cortex	Brainstem	Spinal	Medullary vomiting center Limbic system
Vertigo syndrome	Vertigo	Nystagmus	Ataxia	Nausea

Figure 1. Vertigo, a Multisensory Syndrome

19.8% were classified as having vestibular vertigo (4.3%, BPPV; 2.0%, Meniere disease; 0.6%, vestibular neuritis; and 12.9%, other vertigo); 80.2% of the patients were diagnosed as having nonvestibular vertigo/dizziness. The referral rate of these patients to specialists was only 3.9%. Also, only 13.7% of patients received medical treatment, either with conventional drugs (eg, betahistine, dimenhydrinate and cinnarizine combinations, sulpiride, and flunarizine) or bioregulatory medications (eg, Vertigoheel).²⁰ However, in a report from a specialty clinic, this ratio is inverted, with two-thirds of the patients diagnosed as having specific vertigo and one-third diagnosed as having other kinds of vertigo.²¹ Therefore, non-specific and nonvestibular vertigo seems to be the most challenging form of vertigo/dizziness for the primary care physician. Because of an unfavorable risk to benefit ratio

of long-term conventional drug treatment in nonspecific vertigo, GPs often seek complementary and alternative medicine–orientated approaches to care for these patients.

Diagnostic Approach

Acute vertigo/dizziness is often self-limiting. However, the severity of the illness can substantially decrease the quality of life. In acute care settings, the most relevant decision to be made by the health care practitioner is if vertigo/dizziness is accompanied by so-called red flag symptoms. A selection of these symptoms includes the following:

- new/severe headache or neck pain
- blurred vision
- hearing loss
- difficulties speaking
- unconsciousness
- falling or problems walking
- ataxia

- paraesthesia
- bradycardia/tachycardia
- angina pectoris

These symptoms should be taken seriously. Further emergency measures, including prompt referral to a specialist or an emergency department, have to be taken. Careful medical history taking and a clinical evaluation are usually sufficient to guide diagnosis and initiate treatment in patients without red flag symptoms (Figure 2). Also, there is spontaneous resolution potential for vertigo/dizziness. Nevertheless, after the initial 3-month compensation period, acute cases can become chronic. The most relevant questions for assessing a patient with dizziness/vertigo are as follows:

- *Can you describe the sensation you are feeling during the attack? (Avoid giving influencing examples.)*
- Rotational vertigo with the sign of nystagmus at rest is usually vestibular vertigo.

- How long do your vertigo attacks last?

Benign paroxysmal postural vertigo usually lasts only for seconds after head motion, whereas Meniere disease is usually episodic (from 20 minutes to a few hours). Long-lasting and disabling vertigo is often a sign of acute loss of vestibular function, as is seen in vestibular neuritis or other forms of loss in vestibular function.

- Do you have associated symptoms?

If vertigo is accompanied by a headache, be aware of migraine-associated vertigo. Tinnitus and reduced hearing capacity of low frequencies are characteristic of Meniere disease. Anxiety symptoms are seen in patients with phobic vertigo. Fainting is characteristic in individuals with orthostatic hypotension, cardiac arrhythmias, or reactive hypoglycemia.

- What triggers the attack?

Head motion can trigger BPPV, and special situations (eg, taking an elevator) can trigger phobic vertigo.

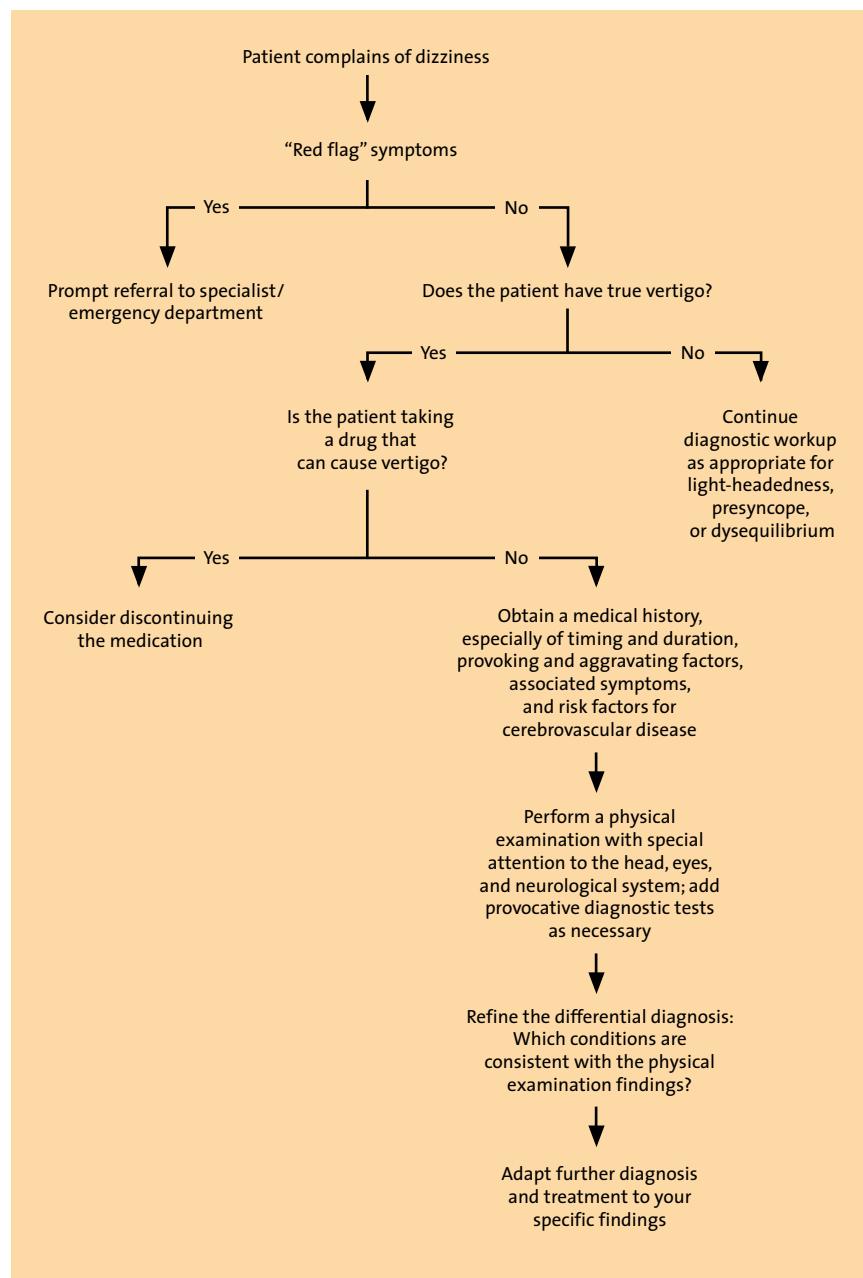
In elderly patients with chronic symptoms, further diagnosis is often not helpful. A watchful waiting strategy can be considered, but symptoms tend to persist.^{10,11} A thorough medical history regarding therapeutic drug use is necessary because many drugs (eg, antihypertensive agents, psychotropic agents, and others) can cause dizziness in elderly patients. Therefore, a careful decision has to be made regarding the risks and benefits of drugs in this population group. In addition to discontinuing the medication, detoxification measures might be helpful in this situation. Vestibular rehabilitation²² and complementary and alternative medicine–orientated approaches can be beneficial to this group.

Bioregulatory Medical Approach

Because vertigo is a multisensory syndrome of various origins and of different pathological features, the attempt to treat vertigo with a conventional, single-target, single-molecule approach is limited. Different parts of the peripheral and central nervous systems are involved in vertigo/dizziness, and no specific approach from conventional medicine has been absolutely effective. Fur-

thermore, conventional medications have adverse effects that prohibit the long-term use of these drugs in patients with chronic vertigo. A multi-targeted and multicomponent approach, as delivered by bioregulatory therapy with low-dose/ultra-low-dose medications, might be an efficient therapeutic option. Treatment goals are symptomatic, specific, or rehabilitative. The basic medication for patients with any kind of symptomatic vertigo is a combination preparation, Vertigoheel. This prep-

Figure 2. Algorithm for Diagnosing Vertigo for the General Practitioner (adapted from Labuguen²)



aration contains *Anamirta coccus*, *Conium maculatum*, *Ambra grisea*, and *Petroleum rectificatum*. Vertigoheel is indicated for various types of vertigo and has been investigated thoroughly in experimental settings on microcirculation and in clinical studies.²³⁻²⁶ In acute care settings, Vertigoheel might be administered parenterally. Under supervision by a treating physician, Vertigoheel is usually given for 6 to 8 weeks and can be easily switched from the parenteral to the oral form. If vertigo can be linked to a specific vestibular disease, the pathogenesis of this disease should be considered in the treatment plan. The focus is on the 3-pillar approach in bioregulatory medicine. For example, BPPV is thought to be caused by otoliths in one of the semicircular canals of the vestibular system and is routinely

treated by positioning maneuvers as standard treatment. Otoliths are a manifestation of the deposition phase and, therefore, a course of basic detoxification and drainage might be worth considering from a bioregulatory medicine point of view to prevent relapses. Vestibular neuritis, a further example of a specific disease in vestibular vertigo, is linked to viral infections in some cases. This means that patients with vestibular neuritis might be treated with Engystol or Traumeel for immunoregulatory purposes. Meniere disease, a type of episodic vertigo with endolymphatic hydrops within the vestibular system, might benefit from basic and advanced detoxification/drainage measures. Because accompanying symptoms are often troublesome to patients with acute vertigo, patients can be treated op-

tionally with Vomitusheel for nausea, often found in those with peripheral vertigo; and with Gelsemium-Homaccord or Spigelon for headache. Vertigo can be a stress-related symptom, and relaxation methods and low-dose medications (eg, Nervoheel or Neurexan) might help. An example of a bioregulatory therapy protocol for vertigo is shown in the Table (Meniere disease). Nonspecific vertigo, characterized by a feeling of dizziness, is a problem especially to elderly patients and was formerly termed *presbyvertigo*. With increasing age, the functioning of all stability systems involved in orientation of the body declines to an individual extent. This decline in proprioception might cause disequilibrium of sensory input and, together with a decline in central compensation mechanisms,

Table: Bioregulatory Treatment Protocol for Meniere Disease

DET-Phase	Basic and/or Symptomatic		Regulation Therapy ^a	Optional
Neurodermal	• Vertigoheel	D&D	• Basic^b and advanced^c detoxification and drainage where appropriate (see text)	<ul style="list-style-type: none"> • Vomitusheel (in the presence of nausea) • Nervoheel/Neurexan (if stress related) • Cerebrum compositum (in the presence of cognitive decline)
Impregnation			• Engystol (only in cases in which virus infection contributes to Meniere disease)	
			• Coenzyme compositum • Ubichinon compositum (see text)	

Notes: Vestibular rehabilitation, including habituation exercise or balance (mind/body) therapy, is helpful.

Dosages: Please refer to the general dosage recommendation of the specific country.

Abbreviations: COS, cell and organ support; D&D, detoxification and drainage; DET, Disease Evolution Table; IM, immunomodulation.

^aAntihomotoxic regulation therapy consists of a 3-pillar approach: D&D, IM, and COS.

^bFor basic detoxification and drainage, the Detox-Kit consists of Lymphomyosot, Nux vomica-Homaccord, and Berberis-Homaccord.

^cFor advanced supportive detoxification and drainage, therapy consists of Hepar compositum (liver), Solidago compositum (kidney), and Thyroidea compositum (connective tissue).

can lead to dizziness.²⁷⁻²⁹ Sclerosis of cerebral blood vessels also might be involved. However, it is not clear to what extent structural changes of the macrocirculation and microcirculation are the cause of dizziness in elderly patients. It would be interesting to investigate if drugs from the catalyst medication group (eg, Coenzyme compositum or Ubichinon compositum) or Composita medications (eg, Cerebrum compositum) would have additional functional effects on the sensory system in elderly patients. Given the potency of these drugs, this approach is not recommended routinely but might be considered on an individual basis.

Additional Measures

Postural maneuvers are helpful because they generally trigger the compensation and adaptation processes of the central nervous system to the pathological conditions. They should be performed as soon as possible; as a rule of thumb, they are feasible under appropriate precautions and supervision and only with patients that will not vomit when their head is moved. During the acute phases of vertigo, the patient should be advised to avoid circumstances in which a vertigo/dizziness attack can cause harm (eg, when driving, handling machines, swimming, or diving). If vertigo/dizziness persists for longer than 3 months, a long-term course is likely and vestibular rehabilitation³¹ is always an option. This includes repositioning treatments and balance therapy. Head movement exercises while sitting or standing are the option of choice because they decrease vertigo/dizziness, improve standing balance, and increase independence in activities of daily living.³⁰

Conclusions

Dizziness/vertigo is a common problem in clinical care. Individualized therapy is mandatory in acute and chronic cases. Bioregulatory medical therapy is exceptionally promising for this multisensory syndrome because it is a multitargeted therapy and does not suppress the compensation mechanisms needed for symptomatic recovery. ■

References:

- Baloh RW. Vertigo. *Lancet* 1998;352(9143):1841-1846.
- Dieterich M. Dizziness. *Neurologist*. 2004;10(3):154-164.
- Sloan PD. Dizziness in primary care: results from the National Ambulatory Medical Care Survey. *J Fam Pract*. 1989;29(1):33-38.
- Colledge NR, Wilson JA, Macintyre CC, MacLennan WJ. The prevalence and characteristics of dizziness in an elderly community. *Age Ageing*. 1994;23(2):117-120.
- Kerber KA, Meurer WJ, West BT, Fendrick AM. Dizziness presentations in US emergency departments, 1995-2004. *Acad Emerg Med*. 2008;15(8):744-750.
- Jonsson R, Sixt E, Landahl S, Rosenhall U. Prevalence of dizziness and vertigo in an urban elderly population. *J Vestib Res*. 2004;14(1):47-52.
- Neuhauser HK, von Brevern M, Radtke A, et al. Epidemiology of vestibular vertigo: a neurologic survey of the general population. *Neurology*. 2005;65(6):898-904.
- Neuhauser HK. Epidemiology of vertigo. *Curr Opin Neurol*. 2007;20(1):40-46.
- Labuguen RH. Initial evaluation of vertigo. *Am Fam Physician*. 2006;73(2):244-251.
- Kroenke K, Lucas CA. Causes of persistent dizziness: a prospective study of 100 patients in ambulatory care. *Ann Intern Med*. 1992;117(11):898-904.
- Colledge NR, Barr-Hamilton RM, Lewis SJ, Sellar RJ, Wilson JA. Evaluation of investigations to diagnose the cause of dizziness in elderly people: a community based controlled study. *BMJ*. 1996;313(7060):788-792.
- O'Mahony D, Foote C. Prospective evaluation of unexplained syncope, dizziness, and falls among community-dwelling elderly adults. *J Gerontol A Biol Sci Med Sci*. 1998;53(6):M435-M440.
- Michels T, Lehman N, Moebus S. Cervical vertigo-cervical pain: an alternative and efficient treatment. *J Altern Complement Med*. 2007;13(5):513-518.
- Heinrichs N, Edler C, Eskens S, Mielczarek MM, Moschner C. Predicting continued dizziness after an acute peripheral vestibular disorder. *Psychosom Med*. 2007;69(7):700-707.
- Karatas M. Central vertigo and dizziness: epidemiology, differential diagnosis, and common causes. *Neurologist*. 2008;14(6):355-364.
- Ekwall Hansson E, Månsso N, Häkansson A. Benign paroxysmal positional vertigo among elderly patients in primary health care. *Gerontology*. 2005;51(6):386-389.
- Hanley K, O'Dowd T. Symptoms of vertigo in general practice: a prospective study of diagnosis. *Br J Gen Pract*. 2002;52(483):809-812.
- Kuo CH, Pang L, Chang R. Vertigo, part 1: assessment in general practice. *Aust Fam Physician*. 2008;37(5):341-347.
- Lawson J, Johnson I, Bamiou DE, Newton JL. Benign paroxysmal positional vertigo: clinical characteristics of dizzy patients referred to a falls and syncope unit. *Q J Med*. 2005;98(5):357-364.
- Kruschinski C, Kersting M, Breull A, Kochen MM, Koschack J, Hummers-Pradier E. Frequency of dizziness-related diagnoses and prescriptions in a general practice database [in German]. *Z Evid Fortbild Qual Gesundhwes*. 2008;102(5):313-319.
- Strupp M, Brandt T. Diagnosis and treatment of vertigo and dizziness. *Dtsch Arztebl Int*. 2008;105(10):173-180.
- Yardley L, Beech S, Zander L, Evans T, Weinman J. A randomized controlled trial of exercise therapy for dizziness and vertigo in primary care. *Br J Gen Pract*. 1998;48(429):1136-1140.
- Klopp R, Niemer W, Weiser M. Microcirculatory effects of a homeopathic preparation in patients with mild vertigo: an intravital microscopic study. *Microvasc Res*. 2005;69(1-2):10-16.
- Heinle H, Tober C, Zhang D, Jäggi R, Kuebler WM. The low-dose combination preparation Vertigoheel activates cyclic nucleotide pathways and stimulates vasorelaxation. *Clin Hemorheol Microcirc*. 2010;46(1):23-35.
- Schneider B, Klein P, Weiser M. Treatment of vertigo with a homeopathic complex remedy compared with usual treatments: a meta-analysis of clinical trials. *Arzneim Forsch/Drug Res*. 2005;55(1):23-29.
- Karkos PD, Leong SC, Arya AK, Papouliakos SM, Apostolidou MT, Issing WJ. "Complementary ENT": a systematic review of commonly used supplements. *J Laryngol Otol*. 2007;121(8):779-782.
- Ganança MM, Caovilla HH, Munhoz MS, et al. Optimizing the pharmacological component of integrated balance therapy. *Braz J Otorhinolaryngol*. 2007;73(1):12-18.
- O'Mahony D, Foote C. Prospective evaluation of unexplained syncope, dizziness, and falls among community-dwelling elderly adults. *J Gerontol A Biol Sci Med Sci*. 1998;53(6):M435-M440.
- Tinetti ME, Williams CS, Gill TM. Dizziness among older adults: a possible geriatric syndrome. *Ann Intern Med*. 2000;132(5):337-344.
- Cohen HS. Disability and rehabilitation in the dizzy patient. *Curr Opin Neurol*. 2006;19(1):49-54.