

CORRESPONDENCE

The Diagnosis and Treatment of Vertigo and Dizziness

by Prof. Dr. med. Michael Strupp, Prof. Dr. med. Dr. h.c. Thomas Brandt
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The Epley Maneuver

I read your review article on vertigo and dizziness with great interest. In my practice, I am often confronted with this problem on an emergency basis, because many patients with acute dizziness are sent by their ENT specialist for an urgent consultation with a neurologist. Kindly allow me to make the following remarks:

First of all, you continue to recommend the Semont maneuver for the treatment of benign paroxysmal positioning vertigo. Prof. Lempert and his collaborators, however, showed a few years ago that the modified Epley maneuver is more effective (1). Your recommendation contradicts your own statement in your publications of last year, which I have not, unfortunately, been able to read personally. Could you please comment on this matter?

Moreover, a paper by Lee et al. (2) has caused me some concern in the discussion with my ENT colleagues. It is stated there that as many as 10% of all cerebellar infarctions (usually involving the territory of the posterior inferior cerebellar artery, "PICA") present with clinical features suggesting vestibular neuritis. Because of the finite capacity of MRI scanners, it does not seem possible, in practice, to obtain an MRI scan of the head of every vertiginous patient. I could not, however, retrieve any clinical criteria from this article that would permit a reliable differential diagnosis without the aid of ancillary studies. Is an adequately reliable differential diagnosis possible, in your opinion, on clinical grounds alone?

Finally, I would like to thank you for your article, which was both highly illustrative and of practical relevance. Thanks in the name of my colleagues as well.

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Endolymphatic Hydrops

We thank neurologists Strupp and Brandt for their review article on the diagnosis and treatment of vertigo and dizziness.

Psychogenic vertigo and dizziness cannot be adequately described by categorizing them as "phobic swaying vertigo." Along with Eckhardt-Henn et al. (1), we rather think that most cases can be diagnosed as anxiety, depression, and somatization disorder.

We also take a more nuanced view of the incidence and treatment of Menière's disease:

The diagnosis of Menière's disease certainly requires more than merely noting down a patient's report of the symptom triad of dizziness, hearing loss, and tinnitus. Without a suitably thorough clinical examination, no precise data on the incidence and prevalence of Menière's disease can be obtained; nor, for that matter, can the physician deliver any well-founded prognosis for the development of bilateral Menière's disease.

We are quite surprised, too, by the recommendation of long-term treatment with betahistine, in the light of our many years of clinical experience. This recommendation, it seems to us, stands on shaky legs.

The pilot study of Strupp et al. lacks not only a control group, but also the long follow-up period that would be appropriate for a study of Menière's disease. In addition, the study does not distinguish between vertigo and dizziness arising from the inner ear and psychogenic vertigo and dizziness (2) or migraine-induced vertigo and dizziness, which can closely mimic Menière's disease.

Nor is there any pathophysiological explanation why betahistine influences, or might be supposed to influence, the course of Menière's disease, except for the fact that this disease, once it has been present for many years, usually becomes less severe over time as part of its natural course. Our current pathophysiological understanding of Menière's disease is that it is due to endolymphatic hydrops, which cannot be influenced by an antihistamine.

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In Reply:

We would like to thank all our colleagues for their questions and constructive criticism. Phobic postural vertigo is a well-defined disease entity for which there are internationally accepted diagnostic criteria. We agree that phobic postural vertigo often has a psychiatric comorbidity, especially depression.

The diagnosis of Menière's disease is based on the diagnostic criteria of the American Academy of Ophthalmology and Otolaryngology (1995), which do not consist merely of symptoms reported by the patient; objective documentation of a hearing disturbance is also required. These criteria could certainly be improved upon, particularly with respect to the differential diagnosis of Menière's disease and vestibular migraine. According to various studies, the lifetime prevalence of Menière's disease lies between 0.2% and 0.5%. Its course is variable.

In our therapeutic trial, patients were observed for one year. We have now obtained up to three years of follow-up on these patients, and our long-term observations support the positive results obtained earlier with high-dose betahistine treatment. The findings of the pilot study provide the foundation for a randomized, placebo-controlled dose-finding study that is currently being supported by the German Federal Ministry of Education and Research. In routine clinical practice, there is no difficulty drawing a distinction, on clinical grounds alone, between psychogenic vertigo and dizziness and Menière's disease. On the other hand, the differentiation of Menière's disease from vestibular migraine is often difficult, especially as 60% of patients may fulfill the diagnostic criteria for both of these entities. As far as the mechanism of action of betahistine is concerned, we would like to emphasize that this agent is an H1 agonist and H3 antagonist that has been found to improve the perfusion of the inner ear in animal experiments (1); it may thus improve the balance between endolymph production and resorption, and thereby alleviate endolymphatic hydrops.

As for the Epley and Semont maneuvers for the treatment of benign positioning vertigo, a number of meta-analyses have shown that these two techniques are equally effective (for a review, see [2]).

Finally, as for the differential diagnosis of vestibular neuritis and pseudoneuritis, vestibular neuritis is a diagnosis of exclusion. If the patient has central oculomotor disturbances such as saccadic pursuit or gaze-evoked nystagmus, if the Halmagyi head-thrust test is normal, and if nystagmus cannot be effectively suppressed by visual fixation, then pseudoneuritis is the likely diagnosis (3). The underlying cause is an ischemic or inflammatory lesion at the entry zone of the eighth cranial nerve, or else a unilateral cerebellar infarction. Patients with such findings or multiple vascular risk factors should undergo MRI scanning of the head. The most important purpose of MRI scanning in this situation is to rule out ischemia.

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Conflict of interest statement

Professor Strupp has received lecture fees from the following companies in Germany: Solvay Pharmaceuticals (Hanover), Hennig-Pharma (Flörsheim), Schwarz Pharma (Monheim), and Serono (Unterschleissheim).

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