

Editorial

What Should a Primitive Surgeon Know About Menière's Patients?

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Thanks to early mentors such as Harold Schuknecht, David Lim, Keith Bosher, and Paul Pialoux, I have learned to approach inner ear disorders with a pathophysiological concern. For Menière's disease, I have tried to apply this principle for nearly 30 years. I have conducted numerous experimental studies; killed thousands of rats, guinea pigs, and gerbils; sampled liters of cochlear endolymph; investigated ionic content, enzymatic activities, and potassium channels in the scala media; and cultured marginal cells. All these efforts have yielded few if not nonsignificant results regarding the pathogenesis of endolymphatic hydrops. It is little consolation that this powerlessness is shared by numerous researchers.

All the uncertainties surrounding this fascinating disease prompted me to adopt a simple, perhaps simplistic, approach. Facing a patient referred for incapacitating vertigo after failure of countless medications, systemically or topically applied, I had asked two questions: "Can you manage with your daily activities?" and "Are you ready to undergo a vestibular neurectomy?" In other words, the problem for me was whether to operate.

At the last meeting on Menière's disease and Inner Ear Homeostasis Disorders recently held in Los Angeles, I was invited to participate in a round table discussion of the psychological aspects of Menière's disease. At first, I thought it was an E-mail error. My name was probably a psychiatrist's homonym. However, the chairman confirmed the invitation, most probably because all previously contacted colleagues had declined the offer.

This commitment prompted me to discover some neglected—at least by surgeons—areas of this overstudied disease. Like any otologist, I was fully aware of the high incidence of psychological disturbances in those patients. Preparing my talk, I reviewed my last 40 cases

and found that two-thirds were abnormally anxious, obsessional, or perfectionist. All presented with mood changes. Four of them reported episodes of depression. Almost all patients complained of the negative impact of these symptoms on their quality of life. I was little troubled by such findings. I knew that, in the 1970s, distinguished clinicians such as Hinchcliffe (1) and Jongkees (2) required the presence of a particular psychological profile for assigning the diagnosis of Menière's disease. Having myself experienced acute vertigo some years ago, it was obvious to me that the extreme disability and discomfort during crisis, the unpredictability of the attacks, the fear of recurrence, and all the ignorance surrounding prognosis and treatment could easily account for anxiety, agoraphobia, depression, avoidance behavior, and other troubling mood states. Another argument in favor of the secondary nature of the psychological symptoms was the fact that they did not seem to predate the onset of the disease, excluding any mental predisposition for developing Menière's disease. Thus, the psychological disturbances observed in Menière's patients were a consequence of the chronic vestibular problems.

However, could they be pathogenetic, as Staab and Ruckenstein (3) showed for some types of chronic dizziness? In other words, could psychopathology be responsible for the development of endolymphatic hydrops and/or occurrence of attacks, two features that should always be analyzed separately, as it remains unclear as to whether the former—the unique, but nonspecific histopathologic correlate of Menière's disease—is cause or consequence of the typical clinical features of the latter?

For endolymphatic hydrops, it seems difficult to conceive that psychological factors would induce a distention of the membranous labyrinth. Indeed, I could put forward the provocative hypothesis that emotional distress could make the inner ear cry and that the excess of endolymph is caused by an excess of tears. More interesting is the possible influence of a hormonal imbalance. In that regard, vasopressin, which is released in response

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to stress, has been shown to induce endolymphatic hydrops (4,5). Horner and Cazals (6) recently found a correlation between cortisol and adrenocorticotropic hormone in Menière's patients and between cortisol and prolactin in female patients, suggesting a perturbation of the hypothalamic-pituitary-adrenal axis. These results, along with the presence of hormone receptors in the secretory structures of the cochlea and vestibule, argue for hormonal control of endolymph homeostasis (7). Compelling evidence also exists to suggest that any type of nonspecific stress, whether endogenous or exogenous, organic or not, may activate some cellular transcription factors that, in turn, may disrupt the homeostatic balance of the cell (8). This would give some basis to a molecular pathogenesis for Menière's disease.

Regarding clinical symptoms, the responsibility of stressful events has been widely discussed (9). Kessén-Söderman et al. (10) recently demonstrated that emotional rather than mental or physical stress increased the risk of an attack within the next few hours. Of major interest are the central neurologic connections that exist between vestibular and autonomic systems (11,12). This might explain why psychological factors could trigger the combined occurrence of acute vestibular symptoms and signs of heightened autonomic arousal. Along those lines, the psychosomatic concept developed some decades ago (13,14) should be considered. Any unexpected event may alter the psychophysical homeostasis of an individual and provoke three types of compensatory reaction: behavioral, as demonstrated by physical or sexual hyperactivity; mental, such as imagery, dreaming, or creative activities; and somatization if these two first routes of escape are inefficient. Thus, vertigo and other physical symptoms would represent an expression of anxiety, a plea for attention, or a search for help.

From a clinical standpoint, these considerations suggest the medical examination of a Menière's patient should include assessment of symptoms of psychological disturbance, which can be distinguished into three categories (15): 1) physical, including autonomic or neurovegetative signs such as cold sweats, shortness of breath, faintness, palpitations, and fatigue or concentration problems; 2) behavioral, including agoraphobia, apathy, avoidance of social activities where occurrence of vertigo attacks might be difficult to manage, and inability to cope with symptoms; and 3) cognitive, including anxiety, hypochondria, pessimism, and depression. In this regard, the fact that these patients are frequently obsessional, punctilious, or meticulous should not be considered as pathologic but rather as a mode of defense against the unpredictability of symptoms and the inability of the physician to provide satisfactory answers to their questions.

Second, these disorders can be significantly improved by appropriate management (this is not the case for cochlear or vestibular symptoms). In view of my experience, I have little doubt that anxiolytic agents, antidepressants, and various types of psychotherapy are as efficient as antivertiginous, vasodilator, or anti-inflammatory drugs on the course of the illness.

However, it is also essential to identify the psychological profile of the patient and the possible triggering factors that have preceded the onset of the disease. Dozens of questionnaires, scales, and other tests have been proposed to assess personality traits and to detect current life events that may have influenced mental status (16–20). All have failed to categorize patients into psychiatric or medical diagnoses. Although complex and sophisticated, these tests cannot cover the entire field of human psychopathology and the full range of possible situations. Therefore, rather than filling out a complicated form, the patient should be allowed to speak freely and, once reassured and confident, will often reveal marital disharmony, sexual difficulties, socioeconomic problems, or other stressful events concomitant with the onset of disease. There is no question that talk and listening are a major component of management.

Such an approach is time-consuming but may be rewarding, revealing an unexpected incidence of emotional factors, making Menière's disease analogous to Graves' disease, in which psychological trauma is known to be a frequent initiating event (21).

As a very primitive surgeon, I am probably not the best candidate to advocate psychiatric intervention. However, beginning a few weeks ago, before performing a vestibular neurectomy, I have started asking a third question to my patients: "Can you tell me about yourself?"

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