EDITORIAL COMMENTARY

Neuro-otological and psychiatric abnormalities

In the paper by Yardley *et al* (this issue, pp 679–684) the authors determined the extent of neuro-otological and psychiatric abnormalities associated with dizziness among working age adults drawn from an epidemiological United Kingdom community sample.

Attempts to define a neurophysiological link between psychiatric disorders and somatic symptoms have concentrated on dizziness for centuries, even before the remarkable group of 19th century scientists (Jan Evangelista Purkyne, Ernst Mach, Josef Breuer, Hermann Helmholtz, and Alexander Crum-Brown) discovered the functions of the labyrinth. The vestibular-psychiatric interrelation is characterised by the following aspects¹:

Schizophrenic patients often have abnormal responses in vestibular testing.

Psychiatric, in particular schizophrenic, patients are more susceptible to motion sickness.

Feeling dizzy or unsteady is among the 13 major symptoms of panic attacks as defined in DSM-IV, and the dizziness may even be present between attacks.²

Psychiatric morbidity is high in unselected patients with vestibular disorders,³ and remains high in strictly selected patients with documented organic vestibular dysfunction.⁴

Patients with vestibular symptoms, particularly with Menière's disease, have a high frequency of abnormalities on psychometric tests.

Organic vestibular disease may precipitate as sequelae panic attacks with or without agoraphobia and forms of psychogenic vertigo such as "motorist disorientation syndrome", "space phobia", and "phobic postural vertigo".

The shortcomings of all these reports in the copious literature have a considerable bearing on the management of patients with vertigo. From the design of most studies, however, we cannot expect the statistical data to elucidate

our current knowledge of the neurophysiological mechanisms involved in the interrelation between lesional dysfunction and psychiatric manifestation. Some reports are purely speculative or present psychoanalytic explanations, ignoring sensory physiology; others are purely phenomenological, comparing gross differences between normal subjects and a heterogeneous group of patients with vertigo. This approach remains unsatisfactory for the clinician, because it does not help to establish a particular diagnosis of peripheral labyrinthine or central vestibular dysfunction, which is clearly defined by a pattern of perceptual, oculomotor, and postural deficits.

The careful study of Yardley *et al* showed a remarkable combination of mild physical disorder and psychiatric dysfunction among the dizzy subjects. This was similar to that found in United States samples of dizzy patients drawn from hospital outpatient clinics. Gross vestibular abnormalities, however, were rare in the authors' sample. The only exception was that dizzy patients showed worse balance on posturographic testing. Comorbidity and mixed aetiology (physical and psychiatric) seem to cause more persistent and handicapping syndromes than either condition in isolation.

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- 1 Brandt Th. *Vertigo: its multisensory syndromes*. 2nd edition. London: Springer, 1999.
- 2 Jacob RG, Lilienfeld SO, Furman JMR, *et al*. Panic disorder with vestibular clinical observation and descriptions of space and motion phobic stimuli. *J Anxiety Dis* 1989;3:117–30.
- 3 Sullivan M, Clark MR, Katon WJ, *et al*. Psychiatric and otologic diagnoses in patients complaining of dizziness. *Arch Intern Med* 1993;153:1479–84.
- 4 Eagger S, Luxon LM, Davies RA, *et al*. Psychiatric morbidity in patients with peripheral vestibular disorder: clinical and neuro-otological study. *J Neurol Neurosurg Psychiatry* 1992;55:383–7.