of the dizzy patient followed logically, in turn, by the techniques and results of bedside examination and then by laboratory testing. Within this section the investigation of Hearing is also dealt with succinctly, but comprehensively, as an essential adjunct to vestibular testing.

The second half of the book is appropriately concerned with the diagnosis, pathology and management of neuro-otological disorders arising from both peripheral vestibular and central nervous disorders, including final sections on pharmacological and rehabilitative, largely physiotherapeutic, management. The authors’ account of neuro-otological diseases and disorders is impressively knowledgeable and comprehensive, ranging through infection, degeneration, hydrops, immune disorders, migraine, vascular disease, tumor and trauma, toxic and metabolic disorders, development and heredity. Numerous pictures derived from imaging studies are also given where appropriate. The scope of this central section will appeal to a wide range of medical specialists dealing with topics far beyond the immediate confines of the VIIIth nerve.

The final topic of rehabilitation is not dealt with in such depth and tends to be preoccupied with the rehabilitation at the level of basic physiological mechanisms. Cognitive behavioural therapy receives no mention and yet a clear explanation of the nature of dizziness followed up by a progressive piecemeal programme of behavioural rehabilitation is the essential line of treatment for those dizzy patients who are difficult to manage. There is a similar neglect of desensitization techniques as also of factors which may impede rehabilitation. The latter aspect is important since it has been shown that the development of certain symptoms, such as headache, during a therapeutic session will negate or reverse the effects of therapy. In simple terms nothing is to be gained by the patient ‘pushing’ himself beyond certain limits; a natural tendency in some.

The approach taken in this book is what could be called strictly mechanistic. The authors are concerned almost exclusively with the consequences of demonstrable physiological or anatomical abnormalities and this is its only shortcoming. Psychiatric problems which frequently accompany dizziness together with their treatments are dealt with extreme brevity. Yet, depending on the nature of a neuro-otological practice in terms of referral patterns and reputation for expertise, it is often the case that a large proportion of patients seen, maybe even half, may be ascribed the diagnosis of having a co-existing or primary ‘functional’ or psychiatric disorder. One cannot aim serious criticisms at the ostensible content of this book and so the reader should take the following ‘critical’ comments more as a guide to what else a physician should know when approaching the dizzy patient.

Spatial orientation is fundamental to all behaviour. Anything which disrupts the normal transactions between ourselves and the (physical) world whether they be sensory, motor, perceptual or cognitive functions are potentially spatially disorienting. Consequently, orientation may be compromised by very many diseases and types of disease, and
Table 4-2. Differentiation between peripheral (end organ or nerve) and central causes of dizziness

<table>
<thead>
<tr>
<th></th>
<th>Nausea</th>
<th>Vomiting</th>
<th>Imbalance</th>
<th>Hearing loss</th>
<th>Oscillopsia</th>
<th>Neurological symptoms</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral</td>
<td>Severe</td>
<td>Mild</td>
<td>Common</td>
<td>Mild</td>
<td>Rare</td>
<td>Severe</td>
<td>Rapid</td>
</tr>
<tr>
<td>Central</td>
<td>Moderate</td>
<td>Severe</td>
<td>Rare</td>
<td>Rare</td>
<td>Common</td>
<td>Slow</td>
<td>Slow</td>
</tr>
</tbody>
</table>

certainly not just those affecting the labyrinth. Functional disorientation is well recognized in the aerospace environment. It occurs, for example, in fit young aircrew who, after a flying incident, may experience a heightened perception of minor instability in the air and come to need rehabilitation. Many readers will have personal experience of a minor disorientation syndrome provoked by a ‘near miss’ on the road, after which one becomes sensitive to the proximity of other vehicles and as a consequence, over-reacts with inappropriate swerving and braking. When seen as an extension of our normal susceptibility to disorientation, functional dizziness becomes more understandable, particularly in neuro-otological patients who are likely to have additional anxiety, minor sensory disorders or have suffered some illness which provokes symptoms of imbalance. Nevertheless, one should not forget that a primarily functional disorder may often have genuine sensory pathophysiology as a trigger or kernel. It is invaluable to identify any such abnormality since it is reassuring to the patient that the physician has found something definitely wrong and that it is not just all in their mind! The reader could refer to Thomas Brandt’s Vertigo and chapters by Alan Benson in John Ernsting’s Aviation Medicine for insights into functional balance disorders and causes of spatial disorientation.

It is consistent with the authors’ avoidance of the topic of functional disorientation that psychiatric aspects of dizziness are glossed over. Phobia, anxiety and depression are mentioned as companions to otological disease, together with pharmacological treatment and a brief reference to the existence of behavioural therapies. This imbalance in favour of physical medicine does not reflect quotidian neuro-otology. It is arguable that anatomical vestibular lesions can readily be compensated, often spontaneously in a patient. However, co-existing psychiatric disease will compromise compensation and the patient’s recovery will be determined primarily by the success with which the psychiatric disorder is managed.

History and examination are critical in neuro-otology since many vestibular functions and structures are not amenable to direct observation or laboratory probe. Unfortunately, both obtaining a reliable history and effecting a successful examination can be difficult in a dizzy patient: a point not well made by the authors who write as if the process were cut and dried. In the first place it may be impossible for the patient to describe his symptoms in words since he has none for the extra-ordinary disorientations and derealization he may experience during an attack. This is further compromised by hang over phenomena or sensitization to disorientation whose effects may cause prolonged experiences of dizziness between attacks. As a consequence the patient can have great problems in recounting his symptoms. In these circumstances the physician may have to help by use of analogy such as ‘is the dizziness like anything you have encountered, say, in a fairground or on a boat’ at the same time avoiding leading the witness. The need to develop this ‘art’ of medicine in approaching the dizzy patient is not the subject of this book.

Similarly, the reader is not made aware of difficulties that may be encountered in the examination of the eyes or of posture and gait. The examination of eye movements is compromised by any pre-existing disorder such as strabismus and even the habitual use of optical correction for more severe dysmetria. It is, I believe, necessary that ophthalmological examination should always precede neuro-otological examination. For example, the presence of a latent nystagmus associated with strabismus will compromise all further interpretations of nystagmic phenomenon and its presence should not be missed. As a further example, the unpredictable manifestations of congenital nystagmus should always be at the back of one’s mind. With such problems in mind one could recommend John Lee and David Zee’s Neurology of Eye Movements as a suitable companion text.

The book is an unparalleled source for cribbing! Few non-specialist physicians would have the time to work systematically through all 428 pages and probably with this limitation in mind, at appropriate intervals the authors provide short, snappy resumés of the key points. These were particularly useful with respect to differential diagnosis and I would not be surprised to see many of the tables and illustrations reproduced as visual aids at student and CME lectures. For example, any non-specialist could well consider copying Tables 2, 3 and 5 of the fourth chapter, The History of the Dizzy Patient, which is concerned with differential diagnosis, onto a sheet of A4 to be pinned conveniently above the desk as an aide-memoire for when dizziness presents itself. I take the liberty of reproducing Table 4-2 to show how accessible the authors have made their message.

The text is augmented throughout, by numerous illustrations, which, although monochrome, are clear and simple and to a large extent convey their purpose effectively. However, a problem with observing behaviour, such as nystagmus eye movements, unlike anatomy, is that movement can be fast and difficult to observe. Moreover, complex movements such as nystagmus of combined skew and torsion can be perplexing to the novitiate eye. Here there is no substitute for real time observation of disordered movements and the reader should be aware that there are currently several internet sites where images of both real and simulated eye movement disorders are available.
In the last 10 years or so the medical audience has been fortunate in having been availed of several quite magnificent textbooks in neuro-otology and its sister disciplines. Baloh and Honrubia’s book is one of these works, which, once in one’s hands, immediately becomes indispensable and well deserves a centre place on the neuro-otologist’s bookshelf. It appeals not only to physicians and surgeons but will be found also by many scientists to be an invaluable source of references.

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