Vestibular Dysfunction and Its Therapy

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Vertigo and dizziness are one of the most common complaints of patients consulting a doctor. These symptoms can be very disturbing to the patient, but a precise diagnosis is often difficult to make and, in many instances, satisfying therapy is lacking. The diagnostic approach has to be multidisciplinary including otolaryngology, ophthalmology and neurology. In November 1996 an international conference on ‘Therapy of ocular motility and related visual disturbances’ was held at Case Western Reserve University, Cleveland, Ohio, and was organized by H.J. Kaminiski and R.J. Leigh [conference summary see, Neurology 1997;48:1178–1184]. At this conference it became quite clear that impressive progress has been made on the basic neurophysiological and neuropharmacological mechanisms of ocular motility over the last 10 years, and has resulted in a number of successful therapeutical studies. However, it was also obvious that more research and clinical studies are required. Particularly in the field of drug therapy, the number of patients investigated in double-blind controlled studies is still very small.

Over the last years the basic mechanisms of benign paroxysmal positioning vertigo (BPPV), one of the most common causes of vertigo, have successfully been worked out. The correct application of these findings to physical therapy has led to impressive, often astonishing results. With a single maneuver lasting less than 5 min patients who had suffered from vertigo for many years can often be cured.

The chapters in this book present the current state of research and clinical studies in this widely relevant field. They are aimed at the basic scientist working in the field of neurophysiology and neuropharmacology of the vestibular and oculomotor system, who wishes to become more familiar with the clinical aspects and therapy. They are also aimed at clinicians interested in neuro-otology and neuro-ophthalmology, providing both information about the neuropharmacological and neurophysiological basis and, in addition, the
clinical and therapeutic approach to patients with vestibular and ocular motility disorders.

The book is divided into eight chapters. The first two chapters provide an overview of the structures in the brainstem and cerebellum involved in oculomotor and vestibular control with the main emphasis on neuropharmacological aspects. The chapter by Vidal et al. covers the vestibular nuclei, and the contribution of Horn et al. other brainstem and cerebellar structures. Peripheral vestibular disorders are treated in the following chapters by Curthoys and Halmagyi (Vestibular compensation), Strupp and Brandt (Vestibular neuritis), Brandt (Benign paroxysmal positioning vertigo) and Hamann and Arnold (Menière’s disease). The last two chapters address central eye movement disorders (nystagmus, saccadic intrusions) and their pharmacological (Büttner and Fuhr) and non-pharmacological treatment (Leigh).

The aim of this book is to aid the diagnosis and treatment of patients with vestibular and oculomotor disorders, and it will also perhaps stimulate research for better therapy.

Ulrich Büttner
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