

epilepsy of particular interest for women patients, as well as the short transcripts of four discussion sessions from the conference which add a few more personal ideas.

The first section addresses the psychosocial problems of women with epilepsy. Susan Usiskin's chapter which provides a patient perspective of the impact of epilepsy on the female child, adolescent, marriage, pregnancy, motherhood, employment and menopause is clearly written and includes many practical suggestions paramedical workers in the epilepsy clinic will find valuable.

In the second section the epidemiological facts regarding sex differences in different types of epilepsy, and developmental differences between the sexes are reviewed. Sheila Wallace and John Pellock follow with a chapter addressing the epileptic syndromes of childhood and adolescence and the particular problems of the adolescent female with epilepsy.

In the third section there are some clinically very useful chapters about the pharmacokinetics of anticonvulsants and oral contraceptives, and alterations in seizure thresholds due to hormonal changes. The subjects of catamenial seizures and teratogenesis in pregnancy are covered separately in excellent reviews by Pamela Crawford and Mark Yerby respectively.

In the last section the topics of sexual seizures, cognitive differences between males and females with epilepsy, depression in epilepsy, and pseudoseizures are each considered. The final chapter is the only one by the editor Michael Trimble, and gives some interesting historical vignettes of some famous women who were thought to have epilepsy.

This book can be recommended as a useful and interesting addition to the epilepsy literature providing a unique approach to a common subject. The book is well indexed, the references are comprehensive and the chapters mostly are easily readable. It provides both practical and provocative information for the clinician and paramedical worker caring for patients with epilepsy.

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NEUROMOTOR MECHANISMS IN HUMAN COMMUNICATION. 1993. By Doreen Kimura. Published by Oxford University Press. 197 pages. \$55.95 Cdn.

This is a monograph in the Oxford Psychology Series by a respected researcher in neuropsychology. I have long been a fan of Doreen Kimura's work on cerebral organization of motor function, and this book did not disappoint.

In this short volume, she presents a number of hypotheses for which she forcefully argues. The main themes are that the left hemisphere is specialized for motor selection of both oral and manual musculature, that this specialization is very similar for both the movements involved in communication and other movements, and that the motor programming systems have strongly influenced human communication. Presenting evidence that lateralization of function is found in many other species, she further argues that lateralization is not tied to the presence of language or other "higher level" functions. Taking the view that traditional aphasia typologies are largely based on highly selected cases, she presents evidence that the anterior and posterior speech systems represent control systems for single or multiple oral movements, be they speech-related or not. Systems for manual praxis are thought to overlap

with the systems for oral movements, and are especially important for control of movements within personal space.

Also in this book she deals with constructional ability, manual sign language, non-right-handedness, sex differences in brain organization, and semantic processing. Some of her provocative points: manual sign language aphasia may be synonymous with apraxia; in woman anterior brain regions are more critical than posterior; in men there is a more even distribution of these functions between anterior and posterior brain regions but in general the posterior regions are favoured; the left hemisphere is not essential for semantic processing and in fact the right hemisphere may be dominant for semantic function when the task is nonverbal.

There is more in this book to capture attention and provoke thought than in many books three times the size. Something must be sacrificed in writing such a book, and the author explains in the first chapter that exhaustive literature reviews would not be attempted. This seems to have resulted in greater inclusion of evidence supporting her views, with at times little mention of the evidence against. For example, there is evidence from a variety of sources (human lesion and cerebral blood flow studies, monkey single cell studies) that there is bilateral frontal involvement in performing or programming unimanual movements in personal space, very much like the ones for which she argues there is unilateral left frontal involvement. This selectivity is understandable (presenting the contradictory evidence and then arguing against it would make the book much longer), but it does put the critical reader who is not well-versed in the field at a disadvantage.

This book is clearly written and concise, with little redundancy. I think it is one of the few books which justifies reading from cover to cover. It is not for someone wanting a casual introduction to the topics at hand, but I recommend it for those with an interest in praxis, language, and the biological and evolutionary underpinnings of complex behaviour.

VESTIBULO-OCULAR REFLEX AND VERTIGO. 1993. Edited by James A. Sharpe and Hugh O. Barber. Published by Raven Press. 416 pages. \$138 Cdn.

This book attempts to present the most current information on the vestibulo-ocular reflex and vertigo. Although it is the desire of the Editors and the 50 contributing authors to present information that is practical and clinically oriented the main thrust of the book has been the review of current research in the area of the vestibular system, in particular the vestibulo-ocular reflex.

The book is broken down into five separate areas: 1) Clinical Anatomy and Physiology of the Vestibulo-Ocular Reflex. 2) The Otolithic-Ocular Reflex. 3) Smooth Eye Movements and Visual Vestibular Interactions. 4) Nystagmus. 5) Vertigo: Diagnosis and Treatment.

I thoroughly enjoyed reading this book and found the mixture of research tools for investigating the vestibular system including both vestibulo-ocular reflexes, otolith-ocular reflexes and smooth eye movements quite valuable.

The section on nystagmus was good and included some specialized tests that are used for assessing nystagmus including head shaking nystagmus. There was a chapter devoted to end point

nystagmus, gaze evoked nystagmus and rebound nystagmus which was thorough covering all the important points that would allow one to distinguish patients with these different forms of nystagmus. The section on vertigo, which was the last section, covered what I consider to be the best part of this book diagnosing and treating patients with vestibular dysfunction. There was a chapter on aids to distinguish between central and peripheral vertigo which was well done. Other chapters on vertebral basilar ischemia and vascular compression as causes of vertigo were comprehensive. A chapter that has often not been included in reviews of vertigo was that of psychogenic dizziness which is now recognized by physicians who deal with these patients as another cause of vestibular dysfunction despite the fact that they often have no objective abnormalities on clinical testing or laboratory testing.

The remaining chapters of this last section cover areas of interest to many physicians, that of benign positional vertigo, vestibular rehabilitation programs and immune mediated diseases of the inner ear. Meniere's Disease which is quite a common cause of vestibular dysfunction seen in neurotology clinics was also reviewed in the next to last chapter. Without going through each chapter individually I feel that the editors have gathered together a first rate group of clinician authors who have an interest in vestibular disorders as well

as eye movement problems, and produced a book that will be a useful reference for those treating patients with dizziness. Dizziness takes many forms and this book has attempted to try and define the different types patients get but importantly explain anatomically and physiologically how they may occur.

There may be only one limitation to this book and that is the depth of the reviews in the chapters is such that it may not have as wide an appeal as the editors intended. Certainly people who have neurotological training will find this a useful addition to their library. General neurologists, internists and geriatricians who deal with patients with dizziness may not find this an easy book to read.

Notwithstanding this last point I think this textbook will come to serve as a useful reference book for all physicians who have an interest in neurotology. With continuing interest in the vestibular system there undoubtedly will be further editions to this book as our understanding increases. I have no hesitation in recommending this book for physicians who have an interest in Neuro-otology.

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