

As outlined above, there are several aspects of this volume which will prove valuable to any clinical neurologist and epileptologist. As it may be the only "collation of all that is known about frontal lobe seizures in epilepsies" (Delgado-Escueta), its lack of organization in editing leaves it short of helping the practitioner unravel the challenge of frontal lobe seizures. The elements are there but they need tying together. Thus, both the weight (2 kg) and its cost (\$114 Cdn. approx.) exceed its value.

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THE NEUROPSYCHOLOGY OF DEGENERATIVE BRAIN DISEASES. 1992. By Robert G. Knight. Published by Lawrence Erlbaum Associates. 351 pages. \$84 Cdn. approx.

This book is a review of a number of chronic neurological conditions from neuropsychological and clinical psychological perspectives. As the author admits the term "Degenerative" in the title is applied loosely. There are separate chapters on Korsakoff's syndrome, Alzheimer's disease, Multiple Sclerosis, Parkinson's disease, and Huntington's disease. Also included are shorter discussions of Progressive Supranuclear Palsy, Amyotrophic Lateral Sclerosis, Wilson's disease, Jakob-Creutzfeldt disease, and Pick's disease.

Part 1 of the book focuses on assessment techniques of use with these patients. While an exhaustive review would be beyond the scope of the book, the author does provide commentary and summaries of many of the more common procedures. He includes mental status examinations, a variety of behavioral rating techniques, measures of depression, and neuropsychological assessment techniques for intelligence, memory, and language functions. One other common instrument, the Wisconsin Card Sorting Test, is also described. This section is useful as far as it goes, but description of techniques for assessing other cognitive abilities are scattered throughout the rest of the book and thus are of less value for general reference.

Part 2 comprises the major section of the book, and is devoted to the description of the individual neurological conditions. He provides good coverage of multiple facets of the conditions. Each chapter begins with a short vignette describing a typical patient. Topics covered range from neuropathology and etiology, to results of detailed neuropsychological research, to the human impact of the disorders and issues of management. There is the occasional puzzler (for example, apraxia tests are mentioned in one sentence as particularly sensitive indicators of Alzheimer's Disease, but then not another word is said about them), and some topics are not dealt with so well as others (I would quibble, for example, with his description of the research comparing simple reaction times with choice reaction times in Parkinson's Disease). In general, however, this section is well done and provides a good overview of each condition.

Part 3 includes a thoughtful review of the impact of dementia (primarily Alzheimer's Disease) on the caregiver, and concludes with a "Neuropsychosocial Model" of the effects of degenerative disease on caregivers on patients. While I found his general discussion of the model to be of some interest, I did not see the value of the model itself. He says that it has "predictive elements", but it is not clear how to use the model to generate predictions. The various elements of the model are connected by

single arrows, double arrows, dashed arrows, or plain lines, but the meaning of this code is left to the reader's imagination. The model is more confusing than helpful, and detracts from the quality of the rest of the book.

This book is informative, readable, and of practical value. I would recommend it for clinicians working with these patients and their families.

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FRONTIERS IN HEADACHE RESEARCH VOLUME 1: MIGRAINE AND OTHER HEADACHES – THE VASCULAR MECHANISMS. 1991. Edited by Jes Olesen. Published by Raven Press. 384 pages. \$108 Cdn. approx.

This book is a summary of the most important work done in migraine and other headache in relation to mechanisms involving cerebral vasculature. It is dedicated to professor Neils Lassen who was one of the originators of the study of cerebral blood flow in Denmark and who developed the first method of regional measurement of cerebral blood flow in humans.

Jes Olesen the editor is one of the foremost investigators in the vascular mechanisms of migraine and was instrumental in describing a phenomenon of spreading vascular changes which occurred during the migraine aura. It was the fact that these changes which consisted of hyperaemia followed by oligemia did not follow a vascular territory which suggested that the primary mechanism was neuronal.

The book is a result of a conference held in Copenhagen of the subject of vascular mechanism in migraine. The first section of the book deals with methods. The chapters are by a variety of authors including Neils Lassen and John Stirling Meyer. Methods described include a comparison of the intrarterial or inhalation of Xenon on 133 cerebral blood flow measurements with xenon-enhanced computerized tomography.

John Stirling Meyer describes stable xenon CTCBF. The question of radiation doses with xenon 133, xenon 127 and 99m HMPAO technetium discussed by Soren Holm, this section finishes with a discussion summary of the methods by Neils Lassen. The second section of the book consists of interictal studies of migraine of aura.

The third section consists of studies of the Ictus and contains discussions of reversible hemispheric ischemic in a patient with aura which seem to be associated with a vasal constriction of the right internal carotid artery.

Section four is concerned with spontaneous attacks of migraine with aura, in here studies are described with 99m HMPAO technetium showing some diminishment of cerebral perfusion, but nothing comparable with those findings of Olesen using different methodology. Measurements of cerebral blood flow using xenon ct methodology found increased cerebral perfusion both in the white matter cerebral cortex and basal ganglia.

Section five deals with the mechanisms of migraine with aura concerning a variety of topics including biochemistry. E.g., changes in aspartate and glutamate, physiological studies in animal preparations and the possibility that cortical spreading depression is related to the migrainous aura. Some evidence of this is presented KMA Welch's group using magneto encephalograph during and between migraine attacks.

Section 6 describes interictal studies of migraine with aura, while part 7 is concerned with interictal studies of migraine without aura. Techniques involved are SPECT and measurement of cerebral blood flow.

Part 8 is devoted to transcranial doppler studies in migraine starting with a chapter by Rune Aaslid the inventor of transcranial doppler technique.

Part 9 concerns cluster headaches, studies with HMPAO technetium are described as well as conventional cerebral blood flow studies and transcranial doppler ultrasonography.

Finally, there is a section concerning other types of headache as well as the effects of drugs such as Sumatriptan and Ergotamine on cerebral blood flow.

What is one to make of such a volume? It is an encyclopedic collection of almost every study of cerebral vascular mechanisms in migraine and other headaches. It contains sections of variable quality but overall the general standard of the book is excellent. The editor is to be highly commended for his ability to synthesize the different findings and for adding at the end of each section a summary trying to bring together all the frequently disparate finds. This book is essential for anybody interested in both basic and clinical research in the area of headache and it demonstrates the coming of age of migraine research.

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INTRACEREBRAL HEMATOMAS. First Edition. 1992. Edited by Howard H. Kaufman. Published by Raven Press. 240 pages. \$144 Cdn. approx.

This book is, for the most part, a collection of reviews of topics related to cerebral hemorrhage by various experts. As expected, the individual chapters are of uneven scholarship and usefulness. Little is novel and most of the information can be obtained elsewhere either from the original articles on which the reviews are based, or in current, standard textbooks of neurology and neurosurgery where most of the topics are also addressed. The volume of the book is, therefore, to collate this material within two hard covers. There is a discussion of the incidence of stroke and the relative incidence of intracerebral hemorrhage, and of the risk factors of the latter, focusing mainly on arterial hypertension. There is a very useful review of various animal models of intracerebral hemorrhage with succinct discussions of the methodology and results from individual studies. There is a short review of the inter-relationship of the brain and blood pressure. Most useful are an extensive and expert discussion of the clinical features of intercerebral hemorrhage; and an extensive and extremely well illustrated chapter on the radiological aspects of cerebral hematomas. Infectious aneurysms are succinctly addressed, as are intracerebral hematomas associated with brain tumours. Special attention is given to pituitary lesions and pituitary apoplexy in a well illustrated chapter. The large literature on intracranial hemorrhage during pregnancy is well reviewed. Especially timely is the discussion of drug-induced intracerebral hemorrhage; and there is an interesting discussion of intracerebral hematomas in childhood. Treatment, especially of hypertensive hemorrhage, in the North-American context, is neglected, a major deficiency of the book that detracts significantly from its usefulness. There is a

discussion of stereotactic aspiration of cerebral hematomas, with or without fibrinolysis, and an extensive discussion of treatment attitudes in Japan where a large experience has been gathered. Other topics are also addressed. One would wish for a more complete discussion on pathological changes and physiological aspects of hypertensive cerebrovascular disease, and a more extensive discussion of amyloid angiopathy.

This book will be useful to medical students rotating on neurology or neurosurgery and to residents preparing fellowship examinations.

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CLINICAL BRAIN IMAGING: PRINCIPALS AND APPLICATIONS. First Edition. 1992. Edited by John C. Mazziotta and Sid Gilman. Published by F.A. Davis Company. 480 pages. \$144 Cdn. approx.

This book is intended for physicians in training and practicing clinicians, the objective is to provide an up-to-date review of "CT-based techniques". The first few chapters deal with physics, the remainder with clinical application of various imaging techniques.

Basic principles and physics of CT, MRI, PET and SPECT are covered in first four chapters. The chapter on CT contains a lot of material on high dose/delayed high dose and dynamic enhanced CT techniques which find little application in current practice. The chapter of MRI seems quite old, with disproportionate discussion of permanent and resistive magnets and little on superconductive magnets which certainly represent the state of the art. The images presented are poor quality and obviously out-dated. The preface states that these chapters are written in language "that should be understood by all physicians". The intended audience of this book will probably not find this to be the case, particularly the lengthy discussion of tracer kinetic modelling.

The remainder of the book deals with clinical applications of neuroimaging techniques. The chapters are broken down by disease categories e.g., epilepsy, neoplastic disorders etc. Throughout these chapters, there is a very heavy emphasis on functional neuroimaging, particularly PET and SPECT. The MR images tend to be of poor quality throughout these chapters, excluding the chapter on white matter disease.

While it is a very difficult task to write a book on neuroimaging which is truly up-to-date by the time it is published, this book contains material which is clearly out-dated. It fails to reflect the current central role of magnetic resonance imaging. In general, practicing clinicians will not find this to be a useful addition to their library. This volume will appeal to those who have special interest in functional neuroimaging, particularly PET and SPECT.

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NEUROTOXICOLOGY. 1992. Edited by Hugh A. Tilson and Clifford L. Mitchell. Published by Raven Press, New York. 400 pages. \$130 Cdn. approx.

This book is not a text describing neurologic or psychiatric disorders that result from exposure to toxins under the usual headings of incidence, etiology, pathogenesis, clinical features,