

sepsis, cardiac arrest, metabolic disorders, thrombotic and hemorrhagic disorders, vasculitis, pregnancy, aortic and cardiac surgery, environmental illness (heat and cold exposure, electrical injuries, near drowning), trauma and organ transplantation. The last, rather short section deals with outcome and decision-making, including withdrawal of care.

Wijdicks is, at times, dogmatic in his statements and I disagree with his assessment of the role of electrophysiological testing. Some differences exist between the Canadian and American approaches to brain death, e.g., the central role of etiology in Canada and the compulsory use of the CT head scan in the US. Space limitations require that some explanations and elaboration have to be sacrificed or curtailed.

Overall, it is a brilliantly thorough, useful and well-balanced monograph. I strongly recommend the book to all neurologists, including those in training, who see patients in emergency rooms and intensive care units. Intensives and emergency room physicians would also find it a helpful reference.

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ADVANCES IN RESEARCH ON NEURODEGENERATION. VOLUME 7. 2000. Edited by Y. Mizuno, D.B. Calne, R. Horowski, W. Poewe, P. Riederer and M.B.H. Youdim. Published by Springer-Verlag/Wien. 214 pages. C\$139.65 approx.

This book was published as the proceedings of the Seventh International Winter Conference on Neurodegeneration and Neuroinflammation held in January 2000 in Japan. Recent advances in the field have identified mechanisms common to both pathological processes such as the involvement of inflammatory changes, microglia, cytokines and apoptosis. These new developments provide a better understanding of pathological events and might provide key opportunities for the development of new therapies that could be applied to a wide range of diseases which involve similar mechanisms. In this aspect, the book presents a comprehensive review of the recent findings in this fascinating field of research. The book is comprised of seventeen chapters covering a wide range of topics from the genetics of Parkinson's disease to the mechanisms of tissue injury in multiple sclerosis and potential therapeutic modalities. While several chapters particularly emphasize the molecular aspects of neurodegeneration such as the involvement of caspases in cell death or the role of cytokines in autoimmune disorders and neuroinflammation, others deal with physiological aspects. Of particular note, the paper by Foley and Riederer proposes a revision of the model of human basal ganglia organization based on recent biochemical findings. Five of the articles deal with the various aspects of Parkinson's disease ranging from the genetic perspective to potential gene therapy using adeno-associated virus vectors thus providing an excellent overview of the ongoing research on this disorder. Most chapters are well-illustrated and well-documented with extensive references. Overall, this book represents a good introduction to the ongoing research on neuroinflammation and neurodegeneration as it captures the sense of intense research in these rapidly evolving fields.

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MIGRAINE: MANIFESTATIONS, PATHOGENESIS AND MANAGEMENT. Second Edition. 2002. Contemporary Neurology Series, Vol. 65. By Robert A Davidoff. Published by Oxford. 511 pages. C\$156.00 approx.

Authors of headache books are usually researchers or clinicians with a special interest in headache and most also sufferer from the disorder. Dr. Davidoff is particularly well-qualified to write about migraine as he is a basic neuroscientist, neurophysiologist and an academic neurologist who treats headache patients. Furthermore, he claims a special interest from the fact that not only has he himself been a life-long migraineur but he comes from and lives with a family of migraineurs.

This is the second edition of Dr. Davidoff's monograph on headache. It is comprised of 26 chapters compared with 12 in the first edition. In addition to sections on epidemiology, clinical manifestations, investigations and management, there are excellent special sections on pathophysiology, and pathophysiology is emphasized throughout the book. Each chapter is well-referenced and the author has taken pains to include the most current literature as well as pivotal studies from the past.

What makes this book different from most headache monographs is the great pains that the author has taken to expose the physiology that underlies the basis for the migrainous condition. Some readers may find certain chapters to be excessively detailed but they reflect the author's viewpoint as a scientist with apparent insatiable curiosity. Nevertheless, I profited from the lucid description of channelopathies, of genetics and of biochemical and neurophysiology that one might not expect to find in a volume devoted to headache. Other chapters give detailed exposés of cerebral circulation and of related neurotransmitters. A chapter on female endocrine physiology provides an unusually detailed background for the better understanding of mechanisms underlying headache associated with fluctuations in the menstrual cycle.

Much of the additional new information in this volume focuses on newer understanding of serotonin mechanisms and the triptans. There is a very balanced and useful discussion of the role of serotonin, serotonin receptors and the medications that act on these receptors. While there is a detailed review of the role of triptans in therapy, Dr. Davidoff does not commit the common mistake of slavish devotion to advocating triptans as the only treatment for acute attacks. The review of prophylactic therapies is well-researched and there is a realistic appraisal of the limited benefit of most prophylactic medications available to date.

Throughout this monograph the author emphasizes that in spite of a vast amount of data gleaned from research and clinical observations most of our knowledge on headache mechanisms is still theoretic, circumstantial, and not founded on evidence-based medicine.

Lastly, despite an emphasis on scientific study, the sufferings of the migraineur are never far out of mind and only one who really suffers from the disorder himself could describe the suffering without being unnecessarily maudlin. Sections on the approach to the patient with headache are excellent.

Who should read this book? I would not think that many busy practitioners would turn to this 511-page volume, although they might find practical, if tedious, answers to many of their questions. Neurologists, especially those with a bent for wishing detailed explanations for clinical phenomena will find it a very worthwhile

book. Physicians of any specialty background whose practice is heavily loaded with migraine sufferers will find this a most useful reference text to have not only on the shelves of their library but close at their elbow on the desk in their office or clinic. I frequently referred to the previous edition and undoubtedly will as often refer to this second edition.

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PARKINSON'S DISEASE. A COMPLETE GUIDE FOR PATIENTS & FAMILIES. 2001. By W.J. Weiner, L.M. Shulman, and A.E. Lang. Published by Johns Hopkins Press. 256 pages. C\$25.52 approx.

This book is primarily based on experience of the authors in dealing with Parkinson's disease patients and their families. It is divided in five parts and each part has several chapters. Part I includes introduction to Parkinson's disease. Part II deals with signs and symptoms and is divided into five chapters covering severity of the disease, psychiatric symptoms and behavioral changes. Part III includes diagnosis and distinction between different Parkinson syndromes. Part IV focuses on treatment of Parkinson's disease and is divided into four chapters which include scientific basis of drug therapy and the currently available drugs, surgical treatment, other issues such as diet, exercise, and alternative therapies. Part V addresses the impact of other illnesses, hospitalization, and the current status of research. The final chapter deals with questions frequently asked by patients/families. They have also provided a list of resources which can be accessed by the patients for further information.

Each chapter starts with several questions, e.g. "Who gets Parkinson's disease?, How common is Parkinson's disease?, Is Parkinson's disease related to aging?, Is it inherited?", etc. They address each question effectively using language which a non-medical person can understand. Understandably, no book can extensively deal with all the issues related to Parkinson's disease. They have, however, produced a comprehensive coverage for the patients/families. The book deals with most of the pertinent scientific, day-to-day patient care, and social issues related to parkinsonism. They have provided well-balanced information, which would be helpful for patients to achieve good grasp of the disease and ask more focused questions for deeper understanding.

A patient may hear of successful use of a new drug in animals, a drug which some friend has benefited from, or the miraculous surgical benefit and ask why she/he cannot have that treatment. Those who read this book would better understand why certain forms of treatment are not possible.

There is some repetition which lengthens the volume. It is, however, desirable as a patient may be interested in only one chapter. There is internal consistency, i.e. the information provided in one chapter is not contradicted elsewhere.

While the book deals with the disease profile in the majority of the patients, those who do not conform to that would ask more questions, as different Parkinson variants respond differently to treatment. They have clarified that the diagnosis is based on clinical assessment alone and have noted that some more complex variants of parkinsonism may not become evident until sometime later. Therefore, the initial diagnosis provided to the patient should include a note of caution regarding evolution of the disease.

A list of drugs which produce parkinsonism has been provided. If a patient reads that and brings drug information to the physician, the diagnosis of drug-induced parkinsonism would become easier.

The book clearly states that the current treatment is aimed at improving the symptoms, and there is no cure. They also clarify that every antiparkinsonian drug produces reversible side effects, but none causes irreversible damage to the brain.

They point out the enormous ongoing research activity in Parkinson's disease. That would give hope to the patients/families.

The three authors are well-known experts in the field of Movement Disorders and have extensive clinical experience.

It is a highly recommended reading for those patients/families who wish to know more than is available in short pamphlets or manuals provided by nonprofit organizations.

The book is well-written, easy to read, and provides credible information. Although they have aimed at patients and their families, it will also be useful for family physicians, geriatricians, and internists who look after parkinsonian patients.

This volume should be available at all large Parkinson's disease clinics so it could be loaned to individuals who do not want or cannot purchase but wish to read it.

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NEUROLOGICAL SPORTS MEDICINE. A GUIDE FOR PHYSICIANS & ATHLETIC TRAINERS. 2001. Edited by Julian E. Bailes, Arthur L. Day. Published by American Association of Neurological Surgeons. 310 pages. C\$99.00 approx.

This practical and "user friendly" reference book is written as a guide for physicians and athletic trainers to help understand and manage their athletes suffering neurological sport injuries. Its soft cover format and inexpensive cost allow for portability which is of great value particularly in a readership that is often travelling with teams and trying to pack light. As well, parts of this book make an excellent text for primary sport medicine doctors or sport medicine fellows in the course of studying for particular parts of their specialty examinations. The book covers a wide variety of topics and has some particular strengths: In chapter 13, "Head, Spine, and Peripheral Nerve Injuries in Sports and Dance: An Encyclopedic Reference", one finds a beautifully organised and excellent review of each and every one of the particular athletic activities mentioned. Other strengths are notable including the excellent chapter by Spinner and Kline on peripheral nerve injuries in athletes as well as an excellent chapter by Lovell and Collins on neuropsychological assessment of the head-injured professional athlete. Generally not seen in such a textbook, the chapter on minimally invasive treatment options for athletes with spine injuries is done well and has interesting operative details particularly of benefit to athletic therapists who often are the first to communicate these approaches to their athletes. The practical inclusion of the Sideline Assessment of Concussion is very useful as the document is included in the chapter and has recently been validated and is currently receiving more attention. Barry Jordan, as usual, is an important contributor with his profound experience and understanding of boxing. There are some minor pitfalls related to redundancy within various chapters but of course this is always an issue with multi-authored textbooks. There is excessive information on neuropsychological