

Books Received

CEREBRAL PALSIES: EPIDEMIOLOGY & CAUSAL PATHWAYS. 2000. Edited by Fiona Stanley, Eve Blair, Eva Alberman. Published by Cambridge University Press. 251 pages. C\$97.42 approx.

CEREBRAL SIGNAL TRANSDUCTION. FROM FIRST TO FOURTH MESSENGERS. 2000. Edited by Maarten E. A. Reith. Published by The Humana Press. 428 pages. C\$175.00 approx.

COLOR VISION. FROM GENES TO PERCEPTION. 1999. Edited by Karl R. Gegenfurtner, Lindsay T. Sharpe. Published by Cambridge University Press. 492 pages. C\$150.00 approx.

COMPREHENSIVE NEUROSURGERY. BOARD REVIEW. 2000. By Jonathan Stuart Citow, Robert L. Macdonald, Robert L. Wollmann, Richard P. Kraig. Published by Thieme. 511 pages. C\$116.13 approx.

DRUG TREATMENT OF MIGRAINE AND OTHER HEADACHES, VOLUME 17, MONOGRAPHS IN CLINICAL NEUROSCIENCE. 2000. Edited by H.C. Diener. Published by Karger. 372 pages. C\$281.50 approx.

EARLY DIAGNOSIS OF ALZHEIMER'S DISEASE. 2000. Edited by Leonard F.M. Scinto, Kirk R. Daffner. Published by The Humana Press. 359 pages. C\$175.00 approx.

HANDBOOK OF PSYCHOPHYSIOLOGY - SECOND EDITION. 2000. Edited by John T. Cacioppo, Louis G. Tassinary. Gary G. Berntson. Published by Cambridge University Press. 1039 pages. C\$183.75 approx.

MEMORY DISORDERS IN PSYCHIATRIC PRACTICE. 2000. Edited by German E. Berrios, John R. Hodges. Published by Cambridge University Press. 520 pages C\$95.47 approx.

MICROANATOMICAL ASPECTS FOR NEUROSURGEONS AND NEURORADIOLOGISTS. 2000. By Wolfgang Seeger. Published by Springer Wien New York. 423 pages. C\$447.00 approx.

NORMAL AND PATHOLOGIC DEVELOPMENT OF THE HUMAN BRAIN AND SPINAL CORD. 1999. By Maria

Dambaska, Krystyna E. Wisniewski. Published by John Libbey & Company Limited. 212 pages. C\$118.50 approx.

PARKINSON'S DISEASE AND MOVEMENT DISORDERS. DIAGNOSIS AND TREATMENT GUIDELINES FOR THE PRACTICING PHYSICIAN. 2000. Edited by Charles H. Adler, J. Eric Ahlskog. Published by Humana Press. 480 pages. C\$187.50 approx.

PROGNOSIS OF NEUROLOGICAL DISORDERS, 2ND EDITION. 2000. Edited by Randolph W. Evans, David S. Baskin, Frank M. Yatsu. Published by Oxford University Press. 758 pages. C\$159.50 approx.

RADIOSURGERY 1999. 1999. Edited by E. Alexander, III. D. Kondziolka, C. Lindquist, J.S. Loeffler, R. Smee. Published by S. Karger AG, Basel. 294 pages. C\$372.00 approx.

SUBORDINATION AND DEFEAT. AN EVOLUTIONARY APPROACH TO MOOD DISORDERS AND THEIR THERAPY. 2000. Edited by Leon Sloman, Paul Gilbert. Published by Lawrence Erlbaum Associates. 245 pages. C\$89.92 approx.

THE DEVELOPING VISUAL BRAIN. OXFORD PSYCHOLOGY SERIES #32. 2000. By Janette Atkinson. Published by Oxford Medical Publications. 211 pages. C\$130.50 approx.

THE NEUROLOGICAL ASSESSMENT OF THE PRETERM & FULL TERM NEWBORN INFANT - 2ND EDITION. 2000. By Eugenio Mercuri, Lilly MS Dubowitz, Victor Dubowitz. Published by Cambridge University Press. 155 pages. C\$83.93 approx.

THE NEUROPSYCHOLOGY OF EMOTION. 2000. Edited by Joan C. Borod. Published by Oxford University Press Canada. 511 pages. C\$111.59 approx.

VIRAL INFECTIONS OF THE NERVOUS SYSTEM - 2ND EDITION. 1999. By Richard T. Johnson. Published by Lippincott-Raven. 527 pages. C\$147.00 approx.

Book Reviews

ADHD IN ADULTHOOD: A GUIDE TO CURRENT THEORY, DIAGNOSIS, TREATMENT. 1999. By Margaret Weiss, Lily Trokenberg Hechtman and Gabrielle Weiss. Published by Johns Hopkins University Press, Baltimore. 357 pages. C\$73.92 approx.

Attention deficit/hyperactivity disorder (ADHD) is among the most common of neurobehavioural disorders of childhood. While it is generally accepted that symptoms of the disorder improve with maturation, longitudinal studies have demonstrated that 70 to 80% of these adolescents continue to have significant difficulties. Two such studies have followed cohorts into adulthood and the Montreal

and New York experiences serve as the basis for this authoritative and engaging review.

The book is intended for family physicians, specialist physicians, psychologists and allied health professionals. The authors have tried to avoid technical terminology but the information and methods will be most easily approached by those with a background in psychiatry. Introductory remarks focus on commonly asked questions about ADHD in adulthood and the disorder is defined in operational terms. Chapters follow on assessment and assessment tools; differential diagnosis and comorbid conditions; difficult diagnoses; and five chapters on treatment approaches including educational methods,

medication, psychological therapies and environmental restructuring. The work closes with a review of the effect of ADHD on family life and an extended narrative provided by a family with ADHD.

The text is devoid of figures or colour. There is a table for DSM-IV diagnostic criteria and a fifteen page guide to managing stimulant medication. Reprinted in the Appendices are an adult self-report diagnostic inventory, an informant inventory and the Domains of Impairment functional rating scale. The text is heavily referenced and suggestions for further lines of inquiry are numerous.

The paucity of objective diagnostic methodologies contained herein is bound to give the neurologist the sense that they tread on foreign ground. The authors nonetheless manage to illuminate, in two important chapters, a spectrum of psychiatric disorders and environmental factors which may confound the diagnosis of ADHD. Few simple treatment formulae are to be found but the reader is introduced to a comprehensive, integrated and humanistic method of evaluation and treatment which, in the final analysis, will serve the individual patient well. Surely, the greatest strength of the book is an abundance of informative and often entertaining case material.

This volume will serve as an excellent introduction to the topic for those who find themselves consulted increasingly by patients themselves or by their physicians, as awareness of the persistence of ADHD into adulthood continues to burgeon. It is worthwhile reading for any clinician with an interest in human behaviour.

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OPIOID SENSITIVITY OF CHRONIC, NON-CANCER PAIN. PROGRESS IN PAIN RESEARCH AND MANAGEMENT, VOLUME 14. 1999. By Eija Kalso, Henry J. McQuay, Zsuzsanna Wiesenfeld-Hallin. Published by IASP Press. 397 pages. C\$100.64

Neurological clinicians should know that significant advances, such as the use of opioids, are occurring in the management of non-cancer pain, particularly the neuropathic pains, about which they should be aware if they are to help their patients with these difficult problems. This book, like all volumes of the IASP Press, is a compilation of mainstream expert opinions and is a very good value for the price.

It is based on the First International Research Symposium of the International Association for the Study of Pain in Helsinki, Finland November 30 to December 1, 1998. It is divided into four sections but is worthwhile for clinicians for Part IV alone which is a state of the art summary of the clinical use of opioids in non-malignant pain.

Part I is entitled, "Function and Dysfunction of Opioid Receptors". This deals with such issues as the alteration and greater anti-nociceptive potency of morphine under experimental inflammatory conditions and the activation of other neurotransmitter systems such as NMDA and CCK which reduce opioid actions and the potential for blocking this interference with the use of antagonists. It also discusses the additive effects of local anesthetics and alpha-2 adrenergic agonists. Another important issue discussed here is the local application of systemically inactive doses of opioids in pain management and the complexity of opioid systems in that, despite the fact that there are only three major families of receptors, there are many subtypes within these.

Part II is entitled, "Clinical Pharmacology of Opioids, Relevant Aspects". An important theme in this section is the variability of response to different opioids and by different routes which has important clinical implications. A chapter considers the issue or, rather, non-issue of opioid tolerance and factors which can lead one to think tolerance is occurring. One author argues for testing all patients with non-cancer pain with intravenous opioid infusions, a point of view with which this reviewer disagrees, but this is a minor point.

Part III is entitled, "Understanding and Improving Opioid Sensitivity: New Perspectives". This section deals with the profound changes occurring in the dorsal root ganglion after nerve injury and specifically the changes that occur following nerve ligation leading to loss of activity of morphine against allodynia. An important chapter is the dramatic modification of the endogenous opioid systems in inflammatory conditions and in painful situations in general. The importance of the kappa opioid receptor agonists in relieving visceral pain is discussed and also the role of NMDA receptors, CCK and glutamate in mediating the development of tolerance and opioid insensitivity.

Part IV is entitled, "Opioid Sensitivity of Different Chronic Pain States – Answers and Questions from the Clinic". This commences with an excellent review of the evidence for the effect of opioids in neuropathic pain and, further, the practical issue of whether they are useful and for how many patients and for which patients. The issue of the anti-inflammatory effect of opioids is raised and a possible role in arthritis, both as analgesics and anti-inflammatory agents which requires a radical shift in our thinking. A chapter deals with the use of opioids in ischemic pain and points out that scientific information in this area is sparse. An important issue raised here is the utility use of opioids for chronic musculoskeletal pain indicating that there is a useful role in such conditions as chronic low back pain. A chapter on opioids in headache is brief and generally indicates that there is no good evidence (no good studies) but fails to take a stance one way or the other. The final chapter, "How Should We Measure the Outcome" deals with the problems of clinical trials and the importance of adequate sample sizes, the use of pain assessment tools, evaluating outcomes and determining whether opioids are actually practically useful or whether trials just show a significant difference in rating scales which is not clinically important.

I have only minor criticisms of this book, one of them being the use of terms for drugs such as "pethidine" rather than providing the alternate North American name "meperidine" for Demerol. Overall this is a book that is valuable for the library of neurological scientists and clinicians interested in the problem of chronic pain and its relief, and particularly neuropathic pain.

*C. Peter N. Watson
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PRESYNAPTIC INHIBITION AND NEURAL CONTROL. 1998. Edited by Paolo Rudomin, Randolph Romo, Lorne Mendell. Published by Oxford University Press Canada. 449 pages. C\$121.50

This book is based on the presentations of an international symposium on Presynaptic Inhibition in Guanajuato, Mexico in June 1995. Additional chapters were commissioned to provide materials not adequately covered in the symposium.

The book has 26 chapters and is divided into three sections. The first section deals with the basic mechanisms of presynaptic

inhibition. Different chapters address the anatomical basis for presynaptic inhibition, action potential propagation, mechanisms of transmitter release and the roles of different neurotransmitters and receptors, especially the roles of GABAA and GABAB receptors. The second section is a collection of studies on the distribution and properties of presynaptic inhibition at the segmental level, such as the role of presynaptic inhibition in modulating inputs from Group Ia, Group Ib and Group II muscle afferents. The third section is on the contribution of presynaptic inhibition during sensory and motor functions. The topics discussed include voluntary muscle contraction, walking, pain perception and peripheral inflammation.

The majority of the chapters are of very high quality. The list of authors is impressive and certainly represents leaders in the field. The editors have also done a good job in achieving a relatively uniform style among the different chapters and the cross-references between the different chapters are quite helpful.

My main criticism is the presynaptic inhibition in the brain was not well-covered. Almost all the chapters are on presynaptic inhibition in the spinal cord. Only one chapter addresses presynaptic inhibition in the brain (in the hippocampus) and none addresses presynaptic inhibition in the cerebral cortex. While it is true that most of the studies of presynaptic inhibition have taken place in the spinal cord, presynaptic inhibition (such as that mediated by GABAB receptors) is also important in the cerebral cortex.

Overall, this book is well-written and nicely produced. It should have a place in neuroscience libraries and anyone interested in presynaptic inhibition and spinal cord physiology will find it a very useful reference.

*Dr. Robert Chen
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CLINICAL NEUROCARDIOLOGY. 1999. By Caplan LR, Hurst JW, Chimowitz MI. Published by Marcel Dekker Inc. 498 pages. C\$294.45

Two decades ago, a book on neurocardiology would be unthinkable. Advances in our knowledge of basic and clinical neurosciences have rapidly focused the interdependence of the heart and brain; neurovascular and cardiac imaging has especially enhanced this interdependency.

Heart disease and stroke may be causally, coincidentally or consequentially related, and this book successfully achieves an amalgam of these functions. The authors have been highly selective and there are only seven chapters, dealing with cardiac arrest, cerebral embolism, neurological effects of cardiac drugs, stroke after cardiac interventions, coincidental ischemic cardiac and cerebral disease, and lastly the effects of neurological lesions on the heart. The book is well laid out and in general easy to read, representing a collaboration between two neurologists and a cardiologist.

The references are in general up-to-date (always a problem with the rapidly expanding data base), though some of the illustrations are grainy CT photos which would improve with third-generation scanners. The chapter on cerebral embolism is a giant 150 pages, which would be more readable if divided. The book is expensive (at least by Canadian standards) at nearly \$300. The description of the authors is, for some reason, found only at the very end of the book, instead of at the beginning, and I almost overlooked it at first glance.

This is a specialized, mainly clinical book which I suspect will

appeal to a limited audience, but is an excellent source book for those interested in this complex though common relationship. It should create an excellent base for further advances in this rapidly expanding area, especially in areas such as cerebral embolism which still has no reliable diagnostic index or test, the emerging effects of cerebral lesions on cardiac function, and the gradual convergence of pharmaceutical trials in ischemic lesions of the heart and brain.

*John W. Norris
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PERIPHERAL NEUROPATHY IN CHILDHOOD – 2ND EDITION. 1999. By RAOuvrier, JG McLeod, JD Pollard. Published by Cambridge University Press. 335 pages. C\$118.40

The first edition of this book about peripheral neuropathies in childhood appeared in 1990 and immediately became the primary resource that many physicians, including myself, turned to for help when dealing with the various peripheral nerve disorders. The current expanded, updated and improved second edition promises to be even more helpful. The same authorship has the advantage of a fairly uniform style.

The first four chapters on the history, peripheral nervous system development, pathophysiology, and investigation of peripheral neuropathies are recommended reading for anyone training in neurology. The following eleven chapters deal with specific diseases or groups of neuropathies, hereditary and acquired (including traumatic) and acute and chronic types. Within each chapter, information is well-organized and within the book, the chapters seem to follow a clearly logical sequence. The only chapter which seems to be out of place is the one on hereditary neuropathy with pressure palsies. It has been placed between the chapters on neuropathies in systemic diseases and miscellaneous neuropathies rather than logically following the chapter on the Charcot-Marie-Tooth diseases. The number of typographical errors which mired the first edition has decreased substantially; however, in addition to the few remaining innocent errors, it was rather disturbing to read “that an anaphylaxis has been reported in patients with IgE (should be IgA) deficiency treated with intravenous gammaglobulin”.

The authors do a most commendable job reviewing the remarkable advances in the field of molecular biology of hereditary peripheral neuropathies. The ever-expanding knowledge about the new genes and their functions is up-to-date and the correlations with clinical presentations are discussed. I also liked their proposed classification of hereditary, motor and sensory neuropathies which has managed to bring some order into the chaos created by genetic and allelic heterogeneity and by different approaches of neurologists and geneticists towards the classification of hereditary neuropathies.

Many chapters have been expanded and newly recognized disorders have been added in this new edition. The references have also been expanded and updated.

The authors have succeeded in providing a useful and practical guide to the peripheral neuropathy diseases in childhood with a large volume of comprehensive and useful information and I would highly recommend this book to all those who care for patients with peripheral neuropathies and their families.

*Jiri Vajsar
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NEUROBIOLOGY OF SPINAL CORD INJURY. 1999. Edited by Robert G. Kalb, MD and Stephen M. Strittmatter. Published by Humana Press, Totowa, New Jersey. 304 pages. C\$185.00

There has been an explosion of research and scientific developments in the field of spinal cord injury, in particular in neurotrauma. Accordingly, the book by Kalb and Strittmatter, who are in the School of Medicine at Yale University, is particularly timely. It is always perilous trying to create a monograph which summarizes a field as rapidly moving as spinal cord injury. Nevertheless, the editors have been successful in putting together a state of the art review of the neurobiology of spinal cord injury. The book comprises 11 chapters by a variety of authors. The chapters go from basic cellular and molecular concepts including the mechanisms of cell death, the role of calcium in mediating cell injury, to a very comprehensive review of the mechanisms involved in axonal regeneration and potential strategies used to achieve neural repair and regeneration in the injured spinal cord. The detail in this monograph is excellent and would be of particular value to neurobiologists engaged in the fields of neurotrauma, neural regeneration or neural ischemia work. In addition, the book represents an excellent introduction to the field for prospective post-doctoral fellows or graduate students. I suspect the detail may be somewhat daunting for clinicians in the neurosciences who are not engaged in neurotrauma or spinal cord injury work. Nevertheless, I would highly recommend this book for acquisition by libraries and clinical neuroscience departments as a reference.

In summary, I thoroughly enjoyed this book and with a few caveats, indicated above, I would highly recommend it.

*Michael G. Fehlings
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REVIEW OF THORACOSCOPIC SURGERY. 1999. Edited by Curtis A. Dickman, Daniel J. Rosenthal, Noel I. Perin. Published by Thieme. 365 pages. C\$255.15

This book represents a major contribution to thoracoscopic spine surgery. With 23 chapters and contributions from 28 authors, the text provides a thorough exposé of most aspects of thoracoscopic spine surgery, from anatomical considerations, patient selection, indications and contraindications, anaesthetic and perioperative management, instrument requirements and step-by-step operative descriptions. It begins with history of thoracoscopic spine surgery and the general principal of thoracoscopy. The section on operative setup and instrumentations are of obvious practical value. Chapters 5 and 6 are dedicated to thoracoscopic perspective of thoracic and mediastinum anatomy as well as gross anatomy of thoracic spine. These two chapters are quite informative and practical.

Chapter 13 is dedicated to surgical technique of spinal exposure and pleural dissection. A range of surgical pathologies are independently dealt with, including sympathectomy, disc herniations, deformity and vertebral and neurogenic tumours. Further, there are interesting and well-illustrated chapters on reconstructive surgery and internal fixation techniques, and insightful future predictions.

There are over 700 illustrations which combine well-drawn and easy to follow line diagrams with photographic studies of the equipment, set-ups and intraoperative procedures.

This text is well-written and organized by descriptive table of contents, which allows its use as both an interesting read and as a reference. Considering that endoscopic surgery is quite new, especially thoracoscopic spine surgery, the authors presented each chapter so well with illustrations that this text can be used as operative techniques as well. Both neurosurgeons and orthopaedic surgeons in practice and in training should find this book especially useful and it is a "must read" for those involved in spine surgery.

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MAKING SENSE OUT OF THE SENSELESS, THE McFEAT FAMILY ALS. 1999. By Ruth McFeat. Published by The Aylmer Express Ltd. 92 pages. C\$10.00

This is a small booklet written by Ruth McFeat with additional comments by her two children, Brenda and Stuart. It tells a story of how Forrest McFeat develops the first symptoms of ALS, what tests are performed to investigate the condition and leads to the discussion of his diagnosis when he sees the ALS team, at the London Health Sciences Centre. What follows is a description of what he is told by the neurologist in charge of the ALS team and then runs through the subsequent course of the illness. On page 10 there is a graph which shows the time line of the disease, which lasted twenty months from diagnosis to death in October of 1997. There is a discussion on family issues, including how to tell family and friends. Practical issues are addressed in the section on home care, with a step-by-step description of all the modifications that were made to the house. Emotional issues are addressed. There is the sense that Mr. McFeat was a remarkable person, since he continued to remain in full control of his situation, while everything was deteriorating physically. Each stage of the book has extremely helpful, practical suggestions, including managing him on an air trip to Hawaii. Legal and financial issues are discussed, as well as details on how to deal with Revenue Canada and life insurance. Not everybody realizes that one can get advances on life insurance policies if one is terminally ill under specific conditions. A decision about what ought to be done should Mr. McFeat develop respiratory failure was made fairly early in the disease. He decided not to be put on a ventilator and finally decided not to have CPR.

These instructions were placed on a sign in the front hall for visitors to read. This is appropriate in the light of an article in the Canadian Medical Association Journal, November 16, 1999 that states that almost a quarter of patients who are DNR at home are resuscitated against their will. The final moments are described, including the fact that Mr. McFeat had donated his brain and spinal tissue to ALS research. There is a section of the book towards the end, titled, Support, which describes all the support that Mr. McFeat had from a variety of health care professionals and volunteers. Specific management of care is described in detail including medication, feeding, mouth care, foot and hand care and toileting and psychological support. The book finishes with contributions by the children, that are extremely moving, and also by the family pet. There is an appendix which describes the suppliers of various items which were used in Mr. McFeat's care.

I find this book extremely helpful and practical and it would be ideal for anybody who is faced with looking after a relative with ALS. The suggestions are very practical and extremely useful. In our

clinic we try to help people manage their ALS, both from an emotional and physical point of view. I would have no hesitation in giving this book to patients who have accepted the diagnosis. I think this is an extremely valuable addition to the literature on this subject. It would certainly not be out of place as reading for both neurologists and family doctors, as well as patients and relatives.

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NEUROSURGICAL MANAGEMENT OF ANEURYSMAL SUBARACHNOID HAEMORRHAGE. 1999. Edited by I.A. Langmeen, T. Jundar, R. Aaslid H-J. Renlen. Published by Springer Wien New York. 177 pages. C\$129.05

This supplement to *Acta Neurochirurgica* (the leading European neurosurgical journal but not well enough known to North American neurosurgeons – probably partly due to its rather prohibitive cost in this continent) is a slim but comprehensive, up-to-date, and excellent volume. It is dedicated to Professor Helge Nornes, former and now retired chairman of the Neurosurgery at the University of Oslo, Norway. Among his many contributions to neurosurgery and cerebrovascular neurosurgery in particular, his name, along with Bjorn Magnaes, will be remembered for the first descriptions of intracranial pressures before, during, and following aneurysm rebleeding, reported in the *Journal of Neurosurgery* in 1972. Judging from his tribute, as well as the quality of the rest of this book written in his honor, he was/is also an outstanding and inspirational surgeon, doctor and teacher.

The book consists of 15 chapters covering preoperative, intraoperative and postoperative considerations and care of patients suffering aneurysm rupture. It is truly international in perspective, and every author stands among the foremost authorities in his field. More importantly, each submission appears to be updated and original, and not a lightly reworked previous publication.

It is difficult to pick favourites and not names, but the book contains a concise and very good review on the problem of the poor grade patient by Le Roux and Winn, the best review of cerebral vasospasm this reviewer has read by Weir and Macdonald, a brilliant chapter on the hemodynamics of vasospasm by Aaslid, a beautifully illustrated chapter on posterior circulation aneurysms by Professor Yasargil's successor, Yonekawa and his group, and an equally authoritative chapter on giant aneurysms by Lawton and Spetzler. Along with Dolenc's chapters on proximal internal carotid aneurysms, the descriptions of procedures in these technical chapters are sometimes daunting enough to dissuade us from operating on certain aneurysms at all – and that may not be a bad thing in some instances!

This is a well-made book, well worth its price, on high quality paper, with excellent radiographic images, and few typographical errors. The only weakness are the indices, which contain authors and keywords only: a common problem in texts such as this.

Neurosurgeons with a special interest in aneurysms as well as residents-in-training will find this book very useful, and it should be part of every library serving an academic neurosurgical program.

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