

Books Received

CLINICAL MR NEUROIMAGING: DIFFUSION, PERFUSION AND SPECTROSCOPY. 2005. Edited by Jonathan Gillard, Adam Waldman and Peter Barker. Published by Cambridge University Press. 827 pages. C\$396 approx.

ENDOSCOPIC SPINE SURGERY AND INSTRUMENTATION. 2005. By Daniel H. Kim, Richard G. Fessler and John J. Regan. Published by Thieme. 352 pages. C\$204 approx.

MAGNETIC RESONANCE IN EPILEPSY: NEUROIMAGING TECHNIQUES. SECOND EDITION. 2005. By Ruben I. Kuzniecky and Graeme D. Jackson. Published by Elsevier Academic Press. 442 pages. C\$190 approx.

OPERATIVE EXPOSURES IN PERIPHERAL NERVE SURGERY. 2005. By Allen Maniker. Published by Thieme. 152 pages. C\$155 approx.

THE NEUROBIOLOGY OF AUTISM. SECOND EDITION. 2005. Edited by Margaret L. Bauman and Thomas Kemper. Published by The Johns Hopkins University Press. 404 pages. C\$114 approx.

THE NEW BRAIN SCIENCES: PERILS AND PROSPECTS. 2004. Edited by Dai Rees and Steven Rose. Published by Cambridge University Press. 301 pages. C\$52 approx.

THE NEUROPATHOLOGY OF DEMENTIA. SECOND EDITION. 2004 SECOND EDITION. Edited by Margaret Esiri, Virginia M. - Y. Lee and John Q. Trojanowski. Published by Cambridge University Press. 578 pages. C\$450 approx.

Book Reviews

PRINCIPLES AND PRACTICE OF EMERGENCY NEUROLOGY: HANDBOOK FOR EMERGENCY PHYSICIANS. 2003. Edited by Sid M. Shah and Kevin M. Kelly. Published by Cambridge University Press. 438 pages. C\$75 approx.

This is a well-written, easy to read handbook. As the companion piece to the much more comprehensive "Emergency Neurology: Principles and Practice", it's focus seems to be on providing a brief, clinically focused review of common neurological disorders cared for by emergency physicians. As such, it is clearly written with the non-neurologist in mind.

The book begins with brief reviews of the neurological examination, neuroradiology, EEG and lumbar puncture. The discussion of EEG findings is of very limited utility to the emergency physician, and I was disappointed to see no discussion or review of basic neuroanatomy. The bulk of the book is then devoted to short, focused reviews of common neurological presentations (weakness, vertigo, headache, etc.) and the most commonly seen neurological conditions seen in an emergency department setting. This is followed by several pediatric-specific topics, a section on pregnancy-related neurologic emergencies, an excellent discussion of neurotoxicology and finally a review of brain death.

Strengths of this book include an intuitive structure and fairly comprehensive list of topics covered. Chapters are short and easy to scan when looking for specific information. Another excellent feature is the shaded "Pearls and Pitfalls" box which completes each chapter and consists of bullet form take home points. Content is for the most part reliable and appropriately acknowledges areas of ongoing debate, such as the role of corticosteroids in spinal trauma. Some chapters are weaker than others, however, and I was surprised to see no mention of the use of dexamethasone in bacterial meningitis.

The biggest shortcoming of this book, however, is that it is unclear what kind of a resource it is meant to be for the practicing physician. As a textbook, it is too short and often too cursory to be

relied upon as a comprehensive resource. For instance, when discussing the role of LP in the diagnosis of subarachnoid hemorrhage, reference is made to diagnosing xanthochromia by either visual inspection or photospectrometry, without any recognition of the significant difference in the sensitivity of these two tests. Similarly, as a "pocket manual" it fails to give the tangible guidance that is often needed in the management and disposition decisions required of emergency physicians. In the case of suspected SAH, for instance, no recommendations are given as to how to proceed if the LP results are equivocal or when to involve a neurosurgeon in a patient with a classic history and apparently negative workup. Similarly, when discussing MS, the authors discuss the various possible presentations of the disease, but make no mention of the need to search for UTI's in patients presenting with exacerbations.

As a basic textbook for the junior learner, this volume may be useful. As either a definitive reference or a point of care guide, I am unable to recommend it.

*Ian Walker
Calgary, Alberta*

NEUROSCIENCE IN MEDICINE. SECOND EDITION. 2003 Edited by P. Michael Conn. Published by Humana Press. 723 pages. C\$175 approx.

This is a second edition (first edition 1993) of a neuroscience text book that is written for graduate and medical students, but is also suitable for faculty as a reference work. Its 32 chapters provide a largely comprehensive overview of the human nervous system, with occasional reference to animal studies. Some chapters are appended by sections entitled "Clinical Correlations" that briefly overview one or more diseases relevant to the chapter.

The book can be considered to have four groups of chapters that deal with 1: cytology, electrophysiology, development and vasculature (chapters 1-8); 2: systems neuroanatomy (chapters 9-19); 3: Muscle systems (chapters 20-21) and 4: Higher functions, neuroimmunology (new for this edition), degeneration, regeneration and plasticity (chapters 28-32). One of the few areas that receives very little attention, strangely, is the autonomic nervous system.

The quality of the text is uniformly high. This is surprising given that every chapter is separately authored. The level of detail and the literary competence are consistently appropriate.

Unfortunately the preceding comment does not apply to the figures. First, there is only one color figure and this places this text at a disadvantage in terms of clarity compared to its competitors. Second, whereas there are many fine diagrams and very good photomicrographs of human brain material, some of the figures are disappointingly crude. Examples of poor figures appear frequently, but chapter 5 ("receptors") has many examples that Humana should have redrawn. Additionally the publisher apparently did not re-letter the figures which thus appear in multiple formats of varying quality.

Despite my reservations about figures there are some highlights worth mentioning. For example the hypothalamus (Chapter 15) is covered in admirable detail. The figures are universally excellent and attention is paid to physiology, pharmacology and behavior. The coverage of spinal mechanisms for muscle control (Chapter 20) is similarly comprehensive and detailed.

Unfortunately many chapters focus almost entirely on anatomy, there is little electrophysiology, pharmacology or behavior in these areas. Also some topics are missing or poorly covered including glial physiology, cranial meninges and cranial nerves.

In summary, this is a book that does a good job in placing neuroscience in a more medical context than most of its competitors. There are sections that I will go back to in the future, but I hope the next edition is more consistent in coverage and in its quality of illustrations.

*Andrew G.M. Bulloch
Calgary, Alberta*

NEUROMUSCULAR JUNCTION DISORDERS. 2004. By Matthew N. Meriggioli, James F. Howard, Jr., C. Michel Harper. Published by Marcel Dekker. 300 pages. C\$231 approx.

This 300 page book is practically single authored by Dr. Matthew Meriggioli (Rush Medical Center). This brings homogeneity of style and content which is very useful and makes it quite accessible. It is destined to Neuromuscular disease specialists but also fulfills the needs of residents and will become a must-read before the EMG exams. Dr. Matthew Meriggioli has been wise enough to invite two co-authors to participate and Dr. James Howard (U of North Carolina) has covered the chapter on toxicology of the neuromuscular junction and Dr. Michel Harper (Mayo clinic Rochester) reported on the congenital myasthenia. The three authors are not only very practice-oriented clinicians but also excellent writers. The foreword is from John Newsom-Davis (Emeritus Oxford).

The book is structured in two parts, the first one covers anatomy, physiology, pathology, pathophysiology and diagnostic testing. It is the basis for the setting of concepts detailed in the second part: Disorders. This reviewer liked most of this first part; there are

numerous illustrative figures with clear schematic representations both of anatomic features and electric findings. The author pays attention to defining the key terms and illustrating them giving the reader a good grasp at the basic sciences basis of the neuromuscular junction. The distinction between pre-junctional, pre-synaptic, synaptic and post-synaptic failures are well delineated. There are numerous case reports that help focus clinicians. One is however surprised that the "Basic Immune Mechanisms in NMJ" are covered in only two and a half pages.

The chapter on Diagnostic tests is extensive and comprehensible. I consider the EMG diagnosis to be the pearl of this small book. The technical considerations necessary to obtain a valid repetitive nerve stimulation results are superbly exposed and its application to different diagnosis is beautifully illustrated. Similarly, jitter generation is abundantly described and discussed. However, again the results of immune studies are presented in a rather superficial way. One would expect sensitivity and specificity results to be presented more extensively.

The second part of this book described the essentials of the clinical aspect and treatment of the NMJ disorders. The author did a fantastic job at describing Myasthenia gravis in a most practical way illustrating the algorithm for treatment, stressing the balance to be maintained between risks and benefits of each treatment. There are paragraphs on Ocular MG, MG and pregnancy, NeoNatal MG and Juvenile MG. While it is very practical, this book lacks a list of medications to avoid once the diagnosis is made. The chapter on Lambert Eaton again includes a very good, dwelling in depth with recommendations for reliable electrical studies, the search for a primary neoplasm and the symptomatic treatment.

The chapter on the congenital myasthenic syndromes contains an excellent reminder of the molecular basis and a superb summary of the updated clinical classifications. Again there are ample and clear illustrations of the electrical abnormalities found in this heterogeneous group of congenital disorders.

Finally the last two chapters on toxicology at the NMJ are well developed and contribute greatly to the uniqueness of this book. Botulism and tetanus are clearly recalled with a special notes on bioterrorism. The different types of envenomation are extensively described both in their mechanisms of action and in their clinical pictures which is generally difficult to find in textbooks under 1000 pages. This chapter finishes on Occupational neurotoxins and war agents. A final chapter details the mechanisms of the drugs acting on the NMJ and it will become a reference reading.

Overall, I highly recommend this book essentially because of the profound knowledge that the main author has of the electrical studies of the NMJ and of the two magnificent chapters on neurotoxicology. Unfortunately, to obtain a balanced knowledge of immunology and immunosuppressant treatments, the reader will have to look elsewhere.

*Joel Oger
Vancouver, British Columbia*

COMMUNITY REHABILITATION IN NEUROLOGY. 2003. By Michael P. Barnes and Harriet Radermacher. Published by Cambridge University Press. 256 pages. C\$104 approx.

I must admit that there was some consternation and dissonance