

BOOKS RECEIVED

AN INTRODUCTION TO BEHAVIOR GENETICS. 2008. By Terence J. Bazzett. Published by Sinauer Associates, Inc. 476 pages. C\$120 approx.

SURGICAL MANAGEMENT OF LOW BACK PAIN. SECOND EDITION. 2008. By Daniel K. Resnick, Regis W. Haid Jr., Jeffrey C. Wang. Published by Thieme. 232 pages. C\$159 approx.

NEUROTRAUMA AND CRITICAL CARE OF THE SPINE. 2008. By Jack Jallo, Alexander R. Vaccaro. Published by Thieme. 256 pages. C\$185 approx.

MODERN MANAGEMENT OF ACOUSTIC NEUROMA PROGRESS IN NEUROLOGICAL SURGERY. VOLUME 21, 2008. Edited by Jean Régis, Pierre-Hugues Roche. Published by Karger. 262 pages. C\$230 approx.

DISSECTION OF THE HUMAN BRAIN. 2008. By Lennart Heimer. Published by Sinauer Associates, Inc. DVD. C\$90 approx.

AN ILLUSTRATED HANDBOOK OF FLAP-RAISING TECHNIQUES. 2008. By Kartik G. Krishnan. Published by Thieme. 119 pages. C\$159 approx.

COMPREHENSIVE REVIEW OF HEADACHE MEDICINE. 2008. Edited by Morris Levin. Published by Oxford University Press. 322 pages. C\$45 approx.

THE COLLECTORS OF LOST SOULS TURNING KURU SCIENTISTS INTO WHITEMEN. 2008. By Warwick Anderson. Published by The Johns Hopkins University Press. 318 pages. C\$30 approx.

SENSATION & PERCEPTION. SECOND EDITION. 2009. By Jeremy M. Wolfe, Keith R. Kluender, Dennis M. Levi, Linda M. Bartoshuk, Rachel S. Herz, Roberta L. Klatzky, Susan J. Lederman, Daniel M. Merfeld. Published by Sinauer Associates, Inc. 460 pages. C\$130 approx.

BOOKS REVIEWED

CEREBRAL VASOSPASM: NEW STRATEGIES IN RESEARCH AND TREATMENT. 2008. Edited by Talat Kiris, John H. Zhang. Published by Springer Wien New York. 463 pages. Price C\$290.

Cerebral vasospasm is a prolonged, sometimes severe, but ultimately reversible narrowing of cerebral arteries that begins days after subarachnoid hemorrhage (SAH). The risk of vasospasm depends mainly on the thickness of blood clots in the subarachnoid space and ventricles. Bleeding significant enough to cause vasospasm is usually due to rupture of a saccular aneurysm, but vasospasm can complicate traumatic SAH, and rarely vascular malformations or brain tumours that bleed heavily into the subarachnoid space at the base of the brain.

Vasospasm begins several days following SAH and peaks in severity about a week later, and progression to symptoms of cerebral ischemia depends on a number of factors but most importantly the degree and distribution of arterial narrowing. Vasospasm affects only intradural arteries and primarily, but not exclusively, the arteries and arterioles located outside the brain. The pathogenesis of vasospasm is clearly due to the encasement of cerebral arteries by blood clots, but the complex extra- and intracellular responses to the contact between arterial wall and hematoma are still to be explored and

defined. At the present time endothelial injury is one hot focus of attention, resulting in increased production of the powerful vasoconstrictor endothelin-1 (ET-1), and/or reduced production of the vasodilator nitric oxide (NO). An imbalance in vessel wall effect to these two endogenous and endothelium-derived factors is a leading theory in the pathogenesis of vasospasm.

Over the past several decades there have been significant improvements in our ability to manage vasospasm, resulting in an important decline in morbidity and mortality among SAH patients. Avoiding hypovolemia, ensuring adequate blood pressures, use of cerebroprotectants such as nimodipine, and prompt intervention with endovascular treatment such as balloon angioplasty for symptomatic vasospasm is the most important goal of SAH management. Determining the exact pathogenesis of this condition and a corresponding single pharmacological prevention remain ongoing pursuits of neurosurgical research.

Which is where this book "Cerebral Vasospasm: New Strategies in Research and Treatment", might have come in. This text amounts to a collection of short papers presented at the 9th International Conference on Cerebral Vasospasm that was held in Istanbul, Turkey in the spring of 2006. They are assembled roughly according to subject ("pathogenesis", "biochemistry", "electrophysiology",

etc.) but the papers and their individual topics are fairly disparate and technical, and the sections seem arbitrary. A number of papers in several sections have nothing to do with vasospasm specifically but rather are about other brain aneurysm topics. The showcase presentation of the conference, the results of the CONSCIOUS 1 trial that tested the ETA receptor antagonist clazosentan in a phase 2 randomized controlled trial, is not represented in the book (but are to be published shortly in the journal *Stroke*). The index is short and incomplete. However my greatest criticism is that aside from a very brief introductory paper entitled "Advances in vasospasm research" there is no overview provided, either for the book as a whole or what would have been even better, for each subject and section. What would have been most welcome is an editorial preface and comment for each section introducing, explaining and tying together the papers to follow, almost all of which focus on a very small (and sometimes obscure) aspect of vasospasm. There is nothing to be found, for example, that even remotely resembles the first three paragraphs of this review, which are my attempt to introduce the readership to the subject of cerebral vasospasm and the very volume I am reviewing. This is an unfortunate editorial oversight, and the consequence is a virtually uninterpretable book to those outside the vasospasm field, and for those on the inside, we are better waiting for the peer-reviewed (and improved) versions of the book's papers in scientific journals.

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PRACTICAL CSF CYTOLOGY. AN INTERACTIVE TRAINING COURSE FOR NEUROLOGISTS, NEUROPATHOLOGISTS AND LABORATORY PHYSICIANS. 2008. By Harald Kluge, Stefan Insenmann, Hans-Juergen Kuehn, Martin M. Kluska, Valentin Wiczsoek, Otto W. Witte. Published by Thieme. CD-ROM. Price C\$50.

The authors have compiled a generous collection of CSF cytology diagnostic challenges in an attractive and interactive CD format. Cases are arranged in a quiz format with an optional and brief review/training session as well. The review and quiz together are readily completed in less than an hour and cover most commonly encountered entities in CSF cytology.

Overall, the quality of the publication is very good with good to very good image quality. The text is largely adequate and brief, facilitating an efficient tour of the material. In some instances, the case images would be improved by further annotations. Similarly, in some instances, quiz answers could be improved by more thorough annotations and more detailed rationales for correct and incorrect interpretations. Finally a few interpretations and explanations are debatable and include unnecessary conjectural statements. While these are not fatal flaws, they leave room for improvement for a future edition.

For the resident, preparing for practice and examinations, and for the practicing Neuropathologist, the CD accomplishes its goals and represents an easily accessed bank of cases and questions for

learning and review of CSF cytology. We are unaware of a similar resource and so it will be a welcome addition to Pathology training programs and their respective libraries and to the bookshelves/CD racks of Neuropathologists and cytotechnologists. We give it a 7 out of 10.

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PARKINSON'S DISEASE - GENETICS AND PATHOGENESIS. 2007. Edited by Ted M. Dawson. Published by Informa Healthcare USA, Inc. 408 pages. Price C\$260.

As a student, and even when I began my residency, it was taught that Parkinson's disease (PD) was a degenerative condition and that there was no definitive role for genetics in its pathogenesis. In 1997 two findings turned the world of Parkinson's research upside down: 1) alpha-synuclein was identified as a key constituent of Lewy bodies and 2) a large family with early onset dominantly inherited Parkinson's was linked to a mutation of the alpha-synuclein gene. Since these discoveries, well over 5000 publications are listed on PubMed under "genetics + Parkinson's disease".

Dr. Ted Dawson, a world renowned scientist in the field of Parkinson's disease, has assembled a "who's who" collection of authors for this tome. The book is organized into four sections: Overview, Genetics, Pathogenesis, and Animal Models. The writing styles obviously vary but the structure of each chapter is similar and allows for some continuity.

The chapters on genetics were generally well done. I was a bit disappointed that the chapter on LRRK2, the gene felt to play a role in more cases of PD by far than all the other genes combined, was only 7 pages long (including references). While it was a good summary, it was not what I expected given the length and depth of the other chapters.

The section on animal models included genetic and toxin-induced PD models from research on rodents, monkeys, worms and fruit flies. This section concludes with a brief but useful and easily readable chapter on drug trials in animal models.

There is a sincere attempt by the editor and the authors to try to connect the various genes with one another (wherever possible) and with the subcellular structures such as the mitochondria and ubiquitin-proteasome system in a meaningful and coherent manner. It is a commendable effort and generates a number of discussion points.

Given the rapid advances in Parkinson's disease, this book is valuable as a "one-stop" reference. I do not suggest reading it cover to cover however as there is a lot of material to digest and it does not make for easy reading. The chapters on treatment of Parkinson's disease and the MPTP model were two chapters that were engaging and easy to read as a clinician. In particular, the MPTP chapter was very well written and informative and provided an excellent history of the development of MPTP and the first human parkinsonism cases linked to this toxin.