

Books Received

ADVANCES IN NEUROLOGY VOLUME 92. ISCHEMIC STROKE. 2003. Edited by H.J.M. Barnett, Julien Bogousslavsky, Heather Meldrum. Published by Lippincott Williams & Wilkins. 502 pages C\$232.00 approx.

CURRENT PRACTICE OF CLINICAL ELECTROENCEPHALOGRAPHY, THIRD EDITION. 2002. Edited by John S. Ebersole, Timothy A. Pedley. Published by Lippincott Williams & Wilkins. 800 pages C\$220.00 approx.

FIELD OF VISION. A MANUAL AND ATLAS OF PERIMETRY. 2003. By Jason J.S. Barton, Michael Benatar. Published by The Humana Press. 350 pages C\$206.00 approx.

IMAGING IN STROKE. 2003. Edited by Michael G. Hennerici. Published by Remedica. 216 pages C\$70.00 approx.

MENTAL AND BEHAVIORAL DYSFUNCTION IN MOVEMENT DISORDERS. 2003. Edited by Marc-Andre Bedard, Yves Agid, Sylvain Chouinard, Stanley Fahn, Amos D. Korczyn, Paul Lesperance. Published by The Humana Press. 561 pages C\$270.00 approx.

PEDIATRIC NEUROLOGY. FOURTH EDITION. 2003. By Michael E. Cohen, Patricia K. Duffner. Published by Lippincott Williams & Wilkins. 346 pages C\$41.00 approx.

SENSORY TRANSDUCTION. 2002. By Gordon L. Fain. Published by Sinauer Associates Inc. 288 pages C\$89.00 approx.

THE NEUROSCIENCE OF LANGUAGE. 2003. By Friedemann Pulvermuller. Published by Cambridge University Press. 315 pages C\$47.00 approx.

Book Reviews

NEW TRENDS IN CEREBRAL ANEURYSM MANAGEMENT. ACTA NEUROCHIRURGICA SUPPLEMENT 82. 2002. Edited by Y. Yonekawa, Y. Sakurai, E. Keller, T. Tsukahara. Published by SpringerWien New York. 121 pages. C\$125.00 approx.

The prevalence of saccular intracranial aneurysms varies around the world, but in North America it is about 2% of adults, and the incidence of subarachnoid hemorrhage is approximately one per 10,000 of the same population annually. These numbers indicate that aneurysms are a relatively common medical problem, about twice as common as multiple sclerosis or intracranial glioma, for example.

Up until a few years ago, when faced with a patient with an aneurysm somehow diagnosed prior to rupture, that was just about exactly how we considered the situation: the aneurysm was fortuitously discovered before a rupture. In fact, the best information we had, based on a number of fairly small retrospective studies, was that the annual risk of spontaneous bleeding from that aneurysm in such a patient was in the order of 1 or 2%, although we appreciated that was a general risk, and additional factors, such as aneurysm size, local mass symptoms such as cranial nerve compression, and family history of subarachnoid hemorrhage influenced this risk importantly. And there was no question about the devastating consequences of aneurysm rupture, when it did occur.

The first results of the ISUIA study by Weibers et al published in 1998 (a study in which this reviewer participated in), sent shock waves through the profession, since it suggested that aneurysms less than 10 mm in diameter (and, of course, the majority of aneurysms are) found in patients with no prior history of subarachnoid hemorrhage from an aneurysm elsewhere, had an extremely low risk – estimated in that report to be the famous “one-twentieth of one percent” (0.05 %) annual risk of bleeding. That report also informed

us how morbid surgery for unruptured aneurysms can be, even at experienced centers. The percentage of operated patients disabled in some way by their operation in the mid-teens.

Considering the fact that at least the natural history conclusions from this ISUIA report were based entirely on retrospective information gathered from selected patients – selected to not require or undergo surgery – albeit a large number of them from all around the world, it was surprising how quickly the results were disseminated and even accepted by the medical community. What is not surprising is how swift and aggressive the neurosurgical response was, and this supplement to *Acta Neurochirurgica* is part of that reaction. As it turns out, cautions issued to consider ISUIA's results carefully, and to not necessarily conclude that intact aneurysms are only dangerous if surgeons are allowed to operate on them, were correct. The prospective natural history data from ISUIA, known now for over a year but not yet published at the time of this writing, are quite different from the retrospective. Aneurysms which were 7 mm or greater in diameter ruptured at a rate just under 1% per year in that cohort, even in the absence of prior SAH. Given this is still a selected population, and surgeons had the opportunity of operating on patients they considered to be higher risk, it is quite possible that the spontaneous rupture risk is even higher. So we are back where we started from, in terms of understanding unruptured aneurysms, but things have been interesting in the meantime.

That lengthy introduction might help put this slim volume (121 pages) under review into better perspective. It consists of a series of invited papers, all presented at a Swiss-Japanese Joint Conference on Cerebral Aneurysm Management that took place in Zurich in the spring of 2001. The first and largest of two parts deals with unruptured intracranial aneurysms, and most of the 11 papers argue with the 1998 ISUIA results, countering with information from

Japanese and Finnish data banks which indicate that the annual risk of bleeding from unruptured aneurysms is as high as 3.2% in Japan and 1.3% in Finland, and that this risk varies according to a number of risk factors, but most importantly female gender and cigarette smoking (at least in Finland). Several papers speculate on aneurysm rates of growth and rupture, and the influence of the "perianeurysmal environment" on rupture risk, both interesting concepts. Finally, the surgical and endovascular results of several case-series are presented (as expected, better than those of ISUIA).

The second part of this supplement, made up of eight papers, is a mish-mash, dealing with different aspects of subarachnoid hemorrhage, each a subject of interest to devoted aneurysm therapists (not all surgeons, remember): the elderly patient (don't hesitate – operate!), massive middle cerebral aneurysm hemorrhages (same advice), "negative-angiography" subarachnoid hemorrhage (nonperimesencephalic-type hemorrhages need repeat catheter angiography), neuropsychological outcome after aneurysm rupture (this perhaps the only report on this subject you will want to read – anterior communicating aneurysms had the best cognitive outcome?), near infrared spectroscopy monitoring of cerebral hemodynamics after subarachnoid hemorrhage, and clinical experimentation with hypothermia in the management of severe subarachnoid hemorrhage (these last two subjects rather experimental).

The last chapter is a concise and beautifully-illustrated contribution from a master and Yasargil's successor in Zurich, Professor Yonekawa, on strategies for the surgical management of posterior circulation aneurysms. A dying, but not yet lost, art.

The price is reasonable for the high-quality publication that we are used to from Acta, the English spotty in places for those who notice such things (and are, therefore, probably frowning at this review), but overall and most importantly I don't think there is enough new or otherwise unpublished information in this supplement to warrant its purchase for those persons or libraries not otherwise subscribing.

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entitled "Cerebrovascular Pathophysiology and Monitoring in the Neurosurgical Intensive Care Unit" is particularly comprehensive with short descriptions of all current techniques for measuring cerebral hemodynamics, including calculations and normal values. The majority of remaining chapters deal with specific neurologic disease entities including infection, head, spinal cord and multisystem injury, subarachnoid hemorrhage, nontraumatic hemorrhage, stroke, epilepsy and brain tumors. The chapter entitled "Infectious Disease" is an excellent source of current knowledge on common and more rare types of central nervous system infection including prion, fungal and parasitic infections as well as HIV. The chapter "Multisystem Injury Management" is unique in pulling together pathophysiology and management for a variety of post-injury complications involving all major systems. The pediatric section includes a useful description of pharmacologic agents and techniques for mechanical ventilation which is unfortunately absent from the adult section. The book finishes with a useful discussion of withdrawal of life support, including a description of landmark case decisions and clinical aspects. The final chapter, on declaration of brain death is an excellent reference on a frequently practiced, but often poorly performed exercise.

This book is well-organized and quite readable with little repetition. The text contains a large amount of useful information important in decision-making processes in neurocritical care. The information is current and focuses on evidence-based medicine to the extent possible in a field often reliant on anecdotal experience. For topics not covered in adequate detail, readers will find the indexing sufficient to locate more in-depth reviews. It should appeal to neurosurgeons, neurologists, ICU practitioners and trainees caring for neurosurgical patients in the ICU. Although several of the chapters can be found in more explanatory neurosurgical or intensive care textbooks, the authors avoid the pitfall of inundating the busy neurosurgeon/intensivist with detailed pathophysiological explanations that distract from the clinical orientation of the text. This is not easy, but is inherent in a book that tries to address problems encountered by two populations of specialists with different training and reflexes. The book successfully brings together the advancements in the field and should assist in advancing the intensive care of neurosurgical patients.

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INTENSIVE CARE IN NEUROSURGERY. 2003. Edited by Brian T. Andrews. Published by Thieme. 256 pages. C\$200

The practice of neurointensive care has become increasingly complex as mechanisms of acute neurologic illnesses and their potential treatments outside of the operating room are discovered. As the number of neurosurgeons and neurologists involved in direct critical care management of their patients grows, so does the requirement for adequate understanding of bedside physiologic monitoring techniques and specific therapies for hemodynamic, pulmonary as well as neurologic deterioration.

Intensive Care in Neurosurgery is a concise, but fairly comprehensive text on the management of neurosurgical patients in the intensive care unit. The scope of the text is impressive, and includes chapters on fluid, electrolyte and acid-base balance, as well as metabolic, nutritional and endocrine aspects of neurosurgical ICU care. The book is multi-authored and divided into 18 chapters which are accompanied by sufficient informative tables and figures. The first four chapters deal with physiology and monitoring: pulmonary, cardiovascular, neurological and cerebrovascular. The chapter

CANCER NEUROLOGY IN CLINICAL PRACTICE. 2003. Edited by David Schiff and Patrick Y. Wen. Published by Human Press, Totowa NJ. 464 pages.

Drs. Schiff and Wen have compiled an extensive compendium of neurological complications of systemic cancer in 31 chapters written by 50 active researchers and clinicians in the field. Many of the authors are neurologists, some neuro-oncologists, and all have extensive experience. The product is an excellent survey of the basic and clinical science of problems that add the complexity of neurological symptoms to the already difficult issue of managing patients with cancer. By placing the material into one volume, the book offers the clinician a ready source to look up a specific problem or review a topic in detail. The only primary central nervous system (CNS) tumor discussed (minimally) is primary CNS lymphoma; otherwise the book is devoted to neurologic problems of systemic