

**HIV NEUROLOGY.** 2001. By Bruce James Brew. Published by Oxford University Press. 252 pages. C\$161.50 approx.

The AIDS epidemic marches on with over 65 million people infected by human immunodeficiency viruses (HIV) of which 100% will manifest a neurological disease before death. The spectrum of neurological disease directly caused by HIV infection is broad, encompassing all levels of the neural axis including dementia, myelopathy, multiple peripheral neuropathies, and myopathies. Moreover, central and peripheral nervous system syndromes can arise due to opportunistic infections and toxic drug effects. In the developed world, there has been a revolution in the care of HIV-infected patients with the introduction of highly active antiretroviral therapy (HAART), which has led to improvements in survival times, quality of life and a reduced incidence of opportunistic infections. However, HIV-related neurological disease remains a major clinical problem as new neurological syndromes arise and patients with neurological disease live longer. Hence, the monograph, *HIV Neurology*, by Bruce Brew is timely and provides an opportunity to glean insights from an authority who has been at the forefront of neurological AIDS-related disease care and research since the beginning of the epidemic. Brew is a clinician-scientist who takes time to report his findings from the clinic and the laboratory.

The monograph covers a wide range of topics that are organized in systematic fashion based on anatomical localization and underlying cause, to give the reader an overview of the current issues regarding the basic principles of HIV neuropathogenesis and neurological care.

The first three chapters of this monograph outline the significance of neurological diagnosis and treatment. Space is devoted to some of the difficult diagnostic issues that arise with the progression of systemic immunosuppression. The outline of HIV biology is lucid and gives the reader the essential facts needed for clinical care.

One of the most outstanding chapters deals with HIV-associated dementia or AIDS Dementia Complex. This chapter is notable for its clarity and perspective of this puzzling syndrome. In this chapter, Brew meshes epidemiological facts, diagnostic guidelines with basic neurobiological principles together with treatment regimens.

However, individual chapters on common opportunistic neurological infections are too brief in some instances. Nonetheless, there are excellent sections in which the author displays his extensive clinical experience by describing uncommon neurological syndromes that are minimally described in other texts including multiple sclerosis- and stroke-like syndromes.

There is a comprehensive description of HIV-related neuromuscular disease outlined in multiple chapters, which is very helpful given the rising frequency of these syndromes due to the widespread use of HAART.

Surprisingly, there is little discussion of neuropathic pain given its high frequency and the potential for several analgesics to interact with different HAART regimens. Unfortunately, the color plates are located at the end of the book but there are many high quality black and white figures throughout the text.

Predictably, as these remain controversial areas, Brew's interpretation of the exact mechanisms leading to the development of HIV-induced neurological disease is open to question in places but he provides the fundamental facts for the reader to distill as he/she wishes.

This monograph provides a superb overview of the current neurological issues facing clinicians today who care for patients with HIV infection. It will be of use to primary care physicians, neurologists, physiatrists, infectious disease specialists, and trainees in the corresponding programs in both developed and developing countries.

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**FUNDAMENTALS OF OPERATIVE TECHNIQUES IN NEUROSURGERY.** 2002. By E. Sander Connolly, Guy M. McKhann II, Judy Huang, Tanvir F. Choudhri. Published by Thieme. 1,072 pages. C\$158.45 approx.

This multi-authored work basically tries to emulate what Mark S. Greenberg has produced with his popular *Handbook of Neurosurgery*, although it focuses on operative techniques. This book is admittedly intended for neurosurgical residents. It is separated in eight sections, each covering different types of surgeries typically performed in the neurosurgical field. Section 1 describes operating room supplies, instruments and equipment. Although the idea of covering these basic aspects of operative practice for junior residents is compelling, this section is rather uninteresting and useless in my opinion. The authors have simply put together an extensive list of instruments regrouped by trays according to the surgical procedure to be performed. Although potentially interesting for an intern who has not been significantly exposed to the operating room, surgery need not to be so dogmatic that one has to use a given list of instruments without adapting it to his or her own need or preferences. This section, occupying 1/5 of the book (191 pages) would probably be best abandoned in future editions of this text, or at least significantly reduced.

The other seven sections refer to description of surgical procedures and are grouped by general topics such as intracranial procedures, spinal procedures, pediatric procedures and so on. Each chapter covers a procedure and is organized in a standardized fashion, discussing the pre-operative planning, the procedure itself, and the postoperative follow-ups. In most sections, although adequate, the discussion remains superficial, taking for granted that the reader possesses some basic knowledge about neurosurgical anatomy and instruments handling, which constitutes the main problem of this text: it basically has no target reader. Most experienced residents will require a more thorough text, whereas junior residents will be irritated by the expected level of knowledge required to assimilate the information. As an example, the section describing surgery on the posterior communicating artery describes the initial steps of the procedure as follows: "open the optic, optico-carotid and carotid-ophthalmic cisterns with beaver blade". How do you expose these cisterns? How are they recognized? How do you manipulate the instruments to do so? A resident with operative experience will know these answers but will also want to improve his operative skills with a better illustrated work. On the other hand, the junior resident will have to look elsewhere for these answers. One then wonders what is the utility of this book. The lack of illustrations is another major shortcoming of this text. A significant number of chapters are devoid of any illustration, which is less than optimal for an operative text.

In summary, I find it difficult to recommend this text. On one

hand, the idea of a summary text on operative techniques is compelling. In the preface, the authors justify the pertinence of this book by the fact that the larger and more complete multivolume publications on operative neurosurgery are unaffordable and thus inaccessible for neurosurgical residents. On the other hand, I can hardly conceive that the resident will complete his training without regularly consulting these books, and thus the pertinence of the present work, in the actual format, is dubious at best.

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**ADVANCES IN NEUROLOGY. VOLUME 85. TOURETTE'S SYNDROME.** 2001. Edited by Donald J. Cohen, Joseph Jankovic, and Christopher G. Goetz. Published by Lippincott Williams & Wilkins. 400 pages. C\$253.50 approx.

This book reflects a collection of articles presented at the Third International Symposium on Tourette's Syndrome and Associated Disorders which was held in 1999. The 31 chapters are logically divided into eight sections. There are a total of 71 authors with as many as nine contributing to a single 18-page chapter. Fortunately the text reads smoothly even with this substantial number. The editors and authors are well-known experts in this field.

For the practicing physician, the sections on clinical phenomenology, comorbid and associated conditions, and advances in treatment will be the most useful. While there is a chapter on the differential diagnosis of tics, it is mainly descriptive and lacks the clinical pearls that some readers may be hoping to gain from an expert in the field. The reviews of the medications used in the management of Tourette's syndrome and related psychiatric disorders are most useful in highlighting the lack of high quality randomized placebo controlled trials rather than simply providing the experts' opinion on how one should manage these patients.

The sections on basic neurosciences, neuroimaging and neurophysiology, epidemiology and defining the phenotype, genetics and molecular biology, and immunology are of more interest to those involved in research. These chapters compress a vast amount of literature into a manageable volume. More is done than just summarizing the data. Chapters such as those dealing with neuropathological and neuroimaging findings provide a broader picture by identifying the limitations of using these methods to study Tourette's syndrome and related disorders.

Overall, the book provides a concise summary of the state of knowledge of Tourette's syndrome up to 1999. While being out of date by the time a book is published is a recognized weakness of all texts, this book's purpose is to disseminate the information gathered at a symposium that only occurs every eight to ten years. The primary target audience would be those with a strong interest in Tourette's syndrome, although the practicing general neurologist and psychiatrist would find the clinical chapters of interest.

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**NEURONAVIGATION AND NEUROANATOMY.** 2002. By Wolfgang Seeger, Josef Zentner. Published by SpringerWienNewYork. 419 pages. C\$351.00 approx.

Neuronavigation has become a mainstay in the operating room. Using landmarks, either MRI or CT derived, has become important in planning surgical strategies, reaching tumors and facilitating the complete excision of lesions impinging on the nervous system. Intraoperatively, two sets of landmarks are used. Those that are constant and independent of brain shifting involve predominately bony landmarks. Intracranial soft tissues are inconstant, and are deformable as the brain shifts as CSF escapes. The "soft" landmarks are sensitive to the mechanical stresses of the position of the head and skull during surgery.

Using such techniques, it has been possible to cut down on the size of craniotomies and exposures, and make identification of pathological lesions more straightforward and safer, which hopefully translates into improved outcomes for patients. Nevertheless, there continues to be significant problems with neuronavigation in that it relies on historically derived images and that the consequences of brain movement, of lesion resection and the concomitant shifts in positions of neuroanatomical structures are not well taken into account.

This particular neuronavigation and neuroanatomical atlas attempts to identify some of the constant bony landmarks and some of the more common neural parenchymal structures that are used to facilitate neuronavigation. The book is a series of 200 figures covering skull anatomy, cranial nerve anatomy, brain stem anatomy and cortical anatomy. The book is divided into five chapters, covering a survey of neuronavigatory landmarks, followed by individual chapters on fronto-parieto-occipital landmarks, landmarks related to ventricles, to the temporal structures and to the infratentorial compartment. There are, in general, one to two illustrations per page. These are in colour and are labeled quite extensively. In some cases, the surgical approaches are delineated in a step-wise fashion through these illustrations, which is of use to those new to the surgical procedures.

The illustrations are of high quality and the neuroanatomic details are quite thorough. This type of book is useful as a reference manual, however, other such manuals that are equally detailed and thorough, already exist. For this reason, while it can be recommended as a reference source, similar information could be obtained from other sources. My recommendation is that neurosurgical centres survey several of the atlas' of this type that are available, and to choose one that they find most suitable. This one would certainly rank high on the list.

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