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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