Book Reviews

IMAGING OF THE SPINE & SPINAL CORD. 1992. Edited by Claude Manelfe. Published by Raven Press, New York. 910 pages. $204.00 Cdn.

This is an excellent and thorough text. Most of the authors are prominent French and American neuroradiologists. The text includes background chapters on the spine (anatomy, development, functional anatomy, normal variants); imaging techniques (CT, MR, contrast media, intra-operative ultrasound); and spinal disorders of all major categories, with appropriate emphasis on congenital disorders, degenerative disc disease, tumors and the postoperative spine.

The first chapter, covering normal anatomy, contains excellent images with exhaustive labelling. Designed as it is with 86 figures, labelled with 286 numbers (decoded at the end of the chapter) it is not suited for reading beginning-to-end but serves as a good reference atlas. I found the format slightly inconvenient.

The chapters on development of the neuraxis and congenital anomalies are outstanding in their thoroughness and clarity. Images and diagrams are excellent. The chapters on vascular pathology and disc herniations are also outstanding contributions by excellent authors.

The images are almost uniformly of good quality. However, a few of the MR images are less than state-of-the-art, particularly in Chapter 6 (Contrast Media), as well as in some figures in the section on spinal cord tumors. Also in Chapter 6, the legends for the gradient echo MR images do not include the flip angle.

The use of all relevant modalities, especially CT and MR, is described in each section. In this respect the text has an advantage over those which try to cover only the applications of one modality. There is appropriate emphasis on MR, but there is an understanding of its relative lack of availability in some settings which is often lacking in publications of entirely American origin. Because of the organization of the text there is some inevitable repetition, which is not excessive. This is minimal in the chapters on normal development and congenital anomalies, but the sequence of neurulation is described twice with some differences in emphasis. The chapters on the disc and facet joints, and disc herniations, describe some of the same processes. Post-discectomy changes are briefly described in the chapter on disc herniations, while this is of course exhaustively covered in the chapter on the postoperative spine. The chapter on syringomyelia also describes findings covered to some degree in other sections.

The entire text has been updated and translated from the original French version, published in 1989. The translation, though good, is not perfect for some chapters; words not in common English usage such as "ovalar" and "semiology" occasionally appear and there are one or two unintelligible sentences, such as "the number of impaired sites if small neurinomas or multiple drop metastases have hived off is, most of the time, inaccurate". Usually, however, the text has only a barely perceptible and charming French accent.

Overall this text covers all major spinal pathology thoroughly, and would be a good addition to the library of neuroradiologists, neurologists and neurosurgeons and their residents.

Carla Wallace,
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ATLAS OF OPTIC NERVE DISORDERS. 1992. By Thomas C. Spoor. Published by Raven Press. 190 pages. $135.00.

Dr. Spoor's atlas serves as an effective overall review of disorders of the optic nerve for the clinician. Beginning with consideration of the anatomy and physiology, as well as clinical evaluation of the optic nerve, this 190 page volume then proceeds to consider the classic problems in optic nerve disorders, namely papilledema and pseudopapilledema, the special case of pseudotumour cerebri and its management, types of optic atrophy, the optic neuropathies of glaucoma and trauma, optic neuritis, non-arteritic and arteritic ischemic optic neuropathy, and finally optic nerve tumours. It ends with an appendix of examples of abnormal appearing optic discs which require some specific decision-making on the part of the examiner. The references are up to date for 1992, and the subject index at the end of the book is appropriate and adequate, easy to use. In fact, any section of the book can be read very quickly and is easily accessible through the Table of Contents.

The discussion of the disorders and their management is weighted in the direction of the personal experience of the author, expecially in the area of use of optic nerve sheath fenestration, procedures for treatment of papilledema with visual loss and pseudo tumour cerebri, and non-arteritic ischemic optic neuropathy. The operative procedures of optic nerve sheath fenestration, as well as temporal artery biopsy, are described in detail with good illustration. The discussion of indirect trauma to the optic nerve and its management is well done.

There are a few points which were expected but absent. No mention is made of contrast sensitivity testing in terms of swollen optic nerves as in pseudo tumour cerebri. Also, little is made of any chromosomal studies more recently done in investigation and typing of Leber's optic neuropathy problems. The term "exudate" is used synonymously with what is actually micro infarct in the description of papilledema. The section on optic glioma does not mention the now recognized existence of normal visual function with optic gliomas found coincidentally with neuro imaging. The natural history of astrocytic hamartomas is also not defined.

In an atlas one should expect a copious number of photographs and these are certainly present; the colour photographs of the optic nerve head are of fairly good resolution with a few exceptions. There are clear drawings to illustrate anatomic points. Specific case descriptions are used to illustrate various optic nerve disorders, and these include fundus photographs, ultrasound and neuro-imaging in many cases. These case studies enrich and better define the clinical perspective with regard to the optic nerve. Occasionally captions to photographs are somewhat too brief and one would like to see arrows pointing to the

areas of interest in both the fundus photos and neuro images for the sake of both exactitude and speed of comprehension.

In general, this is a concise and easily accessible quick reference, well illustrated, covering the spectrum of optic disorders, which should serve as a useful adjunct in the library of the practising ophthalmologist. It is not meant to supplant the more detailed neuro-ophthalmic texts in existence and does list a short but germane bibliography. While Dr. Spoor does emphasize certain personal preferences of management, he recognizes the controversy surrounding these in other areas.

All in all, I think that this is a useful book.

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SURGERY OF CRANIAL BASE TUMORS. 1993. Edited by Laligan N. Sekhar and Ivo P. Janecka. Published by Raven Press. 870 pages. $270.00 Cdn.

This multi-author text covers the complete gamut of skull base surgery. Written by some of the surgeons who pioneered and refined modern day skull base surgery, it is the "state of the art" today. The multi-authorship reflects the need for a multidisciplinary team approach to these tumors.

The book proceeds in an orderly fashion from instrumentation, diagnostic investigations, anaesthesia, neuro-physiologic monitoring to anatomy, operative techniques of the various surgical approaches, treatment of specific tumors, to rehabilitation and complications.

For those of us who have visual memories, perhaps the best part of this text are the illustrations, the majority of which are in color. These vary from anatomic specimens, clinical and intraoperative photographs, to superb drawings. These serve to complement a concisely written text.

This book is a must for anyone involved in the management of these difficult tumors.

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TOURETTE SYNDROME: GENETICS, NEUROBIOLOGY, AND TREATMENT. Advances in Neurology, Volume 58. 1992. Edited by Thomas N. Chase, Arnold J. Friedhoff, Donald J. Cohen. Published by Raven Press. 399 pages. $138.00 Cdn.

This volume is based on an interdisciplinary symposium on Tourette syndrome (TS) held in 1991 and describes advances in the understanding of TS and associated conditions which have occurred over the last decade. As stated in the preface, there is considerable debate within the field and the editors have allowed the individual authors to argue for their own ideas. This is very much a book about work in progress.The first section deals with the clinical phenomenology of TS and of associated phenomen such as obsessive-compulsive disorder. These chapters are well-written and provide a valuable introduction for the individual who wishes to learn about clinical aspects of the disorder. The broad spectrum of tic subtypes is reviewed in detail with ample clinical description thereof. A later section returns to the issue of associated phenomena, including anxiety disorders and self-injurious behaviour and a useful differential diagnosis of the latter is provided.

Pathophysiology of TS is discussed in sections on neurochemistry/neuropathology, genetics, and neuroimaging. All of the reported studies are preliminary in nature but ample speculation is provided regarding the role of potential underlying abnormalities. Singer reports an inability to demon-strate abnormalities *in vitro* in D1 or D2 receptors (although with single-point analyses of binding), in agreement with PET studies of D2 binding reported by Brooks et al., but in contrast to his own PET studies which report a spectrum of D2 changes, ranging from decrease to very elevated B_{max} values. Several chapters on genetic studies establish the difficulty at finding the gene responsible for this presumed hereditary disorder. An excellent chapter by David Pauls discusses the underlying issues and points out that a full characterization of the spectrum of the TS phenotype is lacking so that some of these studies may have included inappropriate subjects while others may have erroneously excluded appropriate subjects. An interesting observation, made by McMahon et al., is that "like marries like" – in families with TS, there is an inordinately high number of unrelated but affected spouses.

Both pharmacological and non-pharmacological treatments are reviewed, allbeit briefly. A review of the use of neuroleptics is disappointingly brief but does emphasize that their use should be limited to those in whom tics have led to significant problems. Of more practical value is the discussion of clonidine and clonazepam and that of the psychopharmacology of obsessive-compulsive disorder in TS. The final chapter provides a valuable conclusion, summarizing the current state of the diagnosis, pathophysiology, and management of this puzzling disorder.

This book will be useful as a source of current information for any professional who has a major interest in TS. All neurologists, psychiatrists, and residents in these specialties will benefit from reading the introductory clinical chapters and the concluding remarks.

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EPILEPTIC SYNDROMES IN INFANCY, CHILDHOOD AND ADOLESCENCE. SECOND EDITION. Edited by J. Roger, M. Bureau, C. Dravet, F. Dreifuss, A. Perret and P. Wolf. Published by J. Libbey & Co. 418 pages. $61.00 Cdn.

The first edition of this book arose from the proceedings of a workshop on Childhood Epileptology held in Marseille in 1983. The justification for publishing it sprang from the predominantly European school of emphasis on the delineation of syndromes in epilepsy and the fact that there was no easy access to a collection of this information in one book.

I have the first edition and find it most useful. It does however suffer from the drawbacks of many workshop proceedings: the content is uneven, reflecting the multiple authors of different papers, there are the rather uninformative discussions of some papers, and at times the phrasing is somewhat stilted.

The second edition has overcome most of these problems. The text itself is grouped into sections that describe epileptic syndromes in neonates, in infancy and childhood, in childhood