and neonatal neurology, central nervous system malformations and chromosomal abnormalities, hydrocephalus and cerebral palsy, metabolic and heredodegenerative disorders, infectious diseases and accidents affecting the developing brain, tumors and vascular disorders, epilepsy, visual and auditory abnormalities, neuromuscular conditions, systemic diseases and their relationship to neurological function and developmental and neuropsychiatric disorders of children.

Most of the textbook was written by Dr. Aicardi himself which explains the uniformity of style and presentation throughout the book. He provides up-to-date genetic information and lucidly explains the biological mechanisms of inherited metabolic and degenerative disorders. I found it difficult to uncover significant deficiencies in the text. However, for future editions it would be useful to more liberally utilize arrows to highlight a specific lesion or area of interest in a CT scan or MRI illustration as not all readers will be comfortable in identifying the abnormality without some assistance. Although controversial, Dr. Aicardi might have touched upon the newly described pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections [PANDAS] and discussed in greater detail the positive outcome in aggressive drug management of pediatric HIV disease.

Diseases of the Nervous System in Childhood is an authoritative and comprehensive textbook. It addresses the majority of child neurology problems encountered in practice and will assist in the identification and investigation of most management problems in the community or in the tertiary care setting. I recommend the textbook without reservation to all those committed to the child's nervous system including students, trainees and practitioners in the field.

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SPINAL CORD DISEASES. NEUROLOGICAL DISEASE AND THERAPY SERIES – VOLUME 47. 1998. Edited by Gordon L. Engler, Jonathan Cole, W. Louis Merton. Published by Marcel Dekker. 696 pages. $C263.25.

This is another midsized book on spinal cord diseases. It is aimed at both surgeons and physicians as well as medical graduates. It presents a broad overview of conditions affecting the spinal cord.

The book consists of 29 chapters, organized under seven major sections: I. Developmental/Genetic Disease; II. Injuries to the Spinal Cord and Column; III. Infections; IV. Tumors; V. Neurological and Systemic Disease; VI. Investigation of Spinal Cord Disease; and VII. Additional Problems.

In the section on developmental diseases, a very extensive chapter on myelo-dysplasia is complete with extensive references. The authors fail to discuss the adult variant of tethered cord syndrome, however. The chapter on Chiari malformations is very extensive and complete. There is a good description of all aspects of the condition, but the discussion perpetuates the confusion between Chiari Type 1 and 2 malformations.

The section on trauma, of necessity, is very brief. The overview of cervical spine injuries presents a good classification and summary. The chapter on thoraco-lumbar injuries is too brief to be useful. The section on birth injuries to the cord brings attention to this uncommon but important issue. The chapter on post-traumatic syringomyelia does not describe the current understanding of the pathogenesis well, and does not discuss the current treatments of choice clearly.

The section on spinal cord infections is well written and provides an excellent review of the viral infections of the spinal cord and a brief but pertinent review of HIV infections.

The section on spinal cord tumors presents a good overview of the various neoplastic conditions, and each chapter representing benign spinal tumors and intra-medullary tumors provides an excellent review with good references. The chapter on metastatic disease is a very good review of the biology of metastases and presents a good overview of the current principles of management and stabilization techniques. The references are extensive.

The large section on neurological and systemic conditions of the spinal cord provides an extensive and excellent review of ALS, cervical spondylotic myelopathy, OPLL. The chapter on rheumatological aspects presents a very poor discussion of rheumatoid arthritis, focusing instead on ankylosing spondylitis and other conditions. The section on vascular disease presents a poor discussion of the venous anatomy and the important condition of dural AV fistula, and neglects cavernous angiomas. There are few references. The chapter on decompression illness occupies too extensive a place in a textbook such as this for a rare and specialized condition. The chapter on cervical spondylotic myelopathy presents a good review of pathology and pathogenesis and natural history with comparison of treatments. It does not present a critical review of treatment results. The section on imaging is a good overview of current diagnostic imaging techniques. The miscellaneous section includes two superb chapters on the urology of spinal cord injury and palliative care. This presents a redefinition of palliative care for chronic illness as opposed to terminal care. It deals with the important issues of chronic medications and pain control, tying in the important issues of communication and family as a unit of care. The chapters on neurophysiology and pain of spinal cord disease provide brief overviews. The over-extensive chapter on omental transfer seems out of place in a book on practical issues of spinal cord disease.

As with many multi-authored books, there is great variation in the depth and quality of material presented. The strength of this book relates to the very complete and extensive chapters on myelodysplasia, Chiari malformation, metastatic disease, ALS, infections, urology and palliative care, providing almost reference-like discussions. Most of the other chapters provide modest but complete overviews whereas some chapters are of insufficient scope and detail to be of much use.

All in all this is a very valuable book for residents in training, and neurologists and neurosurgeons with an interest in spinal cord disease.

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MOLECULAR AND CELLULAR NEUROBIOLOGY: GLIAL CELL DEVELOPMENT BASIC PRINCIPLES AND CLINICAL RELEVANCE. 1996. Edited by K.R. Jessen and W.D. Richardson. Published by Oxford University Press, Canada. 255 pages C$108.00.

Although glial cells exceed neurons in number in the nervous

system, our understanding of the development and functions of glial cells lags far behind that of neurons. However, over the past two decades there has been increasing interest in glial cell biology. Some of the advances have been made as a result of these studies have been presented in this monograph. This book is a valuable source of information on the development of glial cells. It is comprised of thirteen chapters. Each chapter covers concisely a specific area of research in reasonable detail. The best feature of each chapter comes at the conclusion of the chapter where the authors leave the reader with a number of questions for future research.

The first six chapters provide informative and authoritative reviews on the development of Schwann cells, oligodendrocytes and astrocytes. The authors of the first chapter review the origin of Schwann cells as determined in a variety of studies including lineage analyses. In addition, they examine the role of distinct transcription factors in the development of these cells. A particularly interesting aspect of astrocyte development that is reviewed in the second chapter is the evidence provided for the migration of astrocyte precursor cells from the subventricular zone of the developing embryo to the cerebral cortex. The authors of the third and fourth chapters review the development of oligodendrocytes with an emphasis on the extracellular cues that regulate the proliferation, survival, and differentiation of oligodendrocyte precursor cells. The next two chapters provide an examination of the protein constituents of myelin and the transcription factors that regulate the expression of genes that encode the myelin proteins.

The editors have organized the second half of the book to cover areas of glial cell biology that might be applicable in the understanding and treatment of diseases of the nervous system. For example, two chapters are focused on the evaluation of the potential for glial cell transplantation in the treatment of demyelinating lesions of the central nervous system. In another two chapters, the role of astrocytes and Schwann cells has been examined in the regeneration of axons. The most serious drawback of the book is that although the information presented is valuable, the most recent publications that have been referenced date to the mid-1990s. This is not surprising considering that the book was published in 1996. There have been significant advances in basic aspects of glial cell development since the mid-1990s that add to the information presented in this book. Another drawback of the book is that there appears to be an uneven emphasis on certain topics. Of the thirteen chapters in the book, nine chapters cover myelin and the cells that generate myelin. There are only two chapters on astrocyte development, and one of these chapters is focused on the role of astrocytes in neuronal development. Other topics are ignored. For example, there is very little discussion of the role of astrocytes in the formation of the blood-brain barrier.

Overall, this is a book that can be enthusiastically recommended to neurologists and neurobiologists alike. The most important contribution of the book might be that it will serve to inspire those with a potential interest in glial cell biology to seek answers to the many questions that remain to be addressed in this area of research, which will undoubtedly grow and flourish in the years ahead.

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