

the preface, the authors state that the atlas would be most useful as a review to senior residents studying for the Radiology Boards, as well as neuroradiology fellows or practitioners preparing for the CAQ examination. My experience with the atlas strongly supports this contention as it is one of the best texts I have ever seen for this purpose. The cases are collected from the "Unknown Case Conference" that occurs within the Neuroradiology Section on a weekly basis at the University of California at San Francisco. They are therefore susceptible to colloquial dogma, however, any such influence is quite subtle and widely accepted neuroradiological principles are upheld – no surprises here! The cases chosen for inclusion have been carefully selected and are excellent representations of the various disease processes that can affect the brain, meninges, and cranial nerves. Classic findings specific to each disease are demonstrated usually with modern images of very high quality. Each case is presented in a standard format that begins with the clinical presentation accompanied by the relevant images. This is followed by description of the radiological findings, the diagnosis, the differential diagnosis, and the discussion. The concise discussion is divided into the following subheadings: background, clinical findings, pathology (gross and microscopic), CT imaging findings, MR imaging findings, treatment and finally prognosis. At the end of the case, a reference of suggested up-to-date readings is provided. **Highlighted in the margins of each case is a section describing pearls and pitfalls that are especially useful in informing the reader of specific clues and potential traps that help to sharpen the reader's overall diagnostic acumen. Complimenting each case is a set of additional images taken from other patients with the same disorder, permitting the reader to gain a flavor of the diversity of imaging findings that may be present.** Overall, the quality and range of cases is excellent. Imaging findings stay true to the classical patterns of disease. The coverage is comprehensive providing an excellent review for a board or CAQ examination. A bulleted format is used within the subheadings that permits rapid acquisition of information decreasing the fatigue usually associated with identification of relevant information within conventional full sentence text. It is a very pleasing format for presenting the information permitting fast learning. The only negative feature, if one intends to use this text as a test of diagnostic ability (i.e. true board style testing format), is that the cases, even though they are presented as unknowns, are somewhat predictable because of their grouping into specific disease categories. Random sequencing of the cases would have alleviated this problem but organization of the text would have suffered. Nevertheless, this atlas provides a comprehensive and rapid method for reviewing non-spinal CNS disorders. I would strongly recommend it as a primary tool for Neuroradiological review. The authors and the publisher Thieme have created a web site where an additional 29 cases (to date) have been made available for review following the same format as the text. I would suggest that anyone interested in purchasing the text access this well-designed web site (www.thieme.com) to obtain their own impressions of this work.

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NEURAL TRANSPLANTATION METHODS. 1999. Edited by Stephen B. Dunnett, Alan A. Boulton, Glen B. Baker. Published by Humana Press. 576 pages. C\$185.00 approx.

The first efforts in the field of neural transplantation date back to

over a century ago. There has been a relative hiatus for seven or eight decades with a more recent rediscovery and a flurry of activity in this field in the last 20-30 years. We have now seen the transition from laboratory animal experiments to the application of **transplantation to treat human disease. This history has been spotted by initial exuberant enthusiasm leading to the clinical use of transplants, perhaps before some of the fundamental details had been worked out. There is now a more careful rational approach with stronger scientific underpinnings and better clinical designs** so that we are now in a position to make significant advances in this field.

The last decade has found tremendous advances in transplantation biology with important discoveries of the potential of stem cells that are resident in the adult nervous system and with increasing advances in the manipulation of genetic information in cells. There is an increasing number of potential sources for transplant material into the brain and the field has expanded to involve not only transplantation of neurons but also of non-neuronal cells, for example, myelogenic cells to remyelinate the diseased nervous system and the use of non-neuronal cells with genetically modified non-neuronal cells to deliver biological molecules.

The book edited by Dunnett, Boulton and Baker is divided into three areas. (1) The sources of cells for transplantation (2) The methods of implantation and (3) Factors in graft survival and function.

The emphasis is on technical aspects of transplantation procedures and the scientific basis for choosing one method and one strategy over another. The sources of transplants discussed include embryonic neural tissue, neural stem cells, immortal life cells, cells from engineered cells and cells from the testes. It does not cover certain other types of cell transplants that have been used, for example, there is no mention of placental cells or carotid body cells that have recently been shown to provide some interesting biological effects on experimental animal models of parkinsonism. The methods of implantation include details of tissue preparation and storage, of the dissociation of microinjection and the book has a summary of the application of polymer encapsulated cells for the treatment of various CNS diseases. Strategies to enhance graft survival and incorporation and immunological considerations particularly with xenographs are covered.

This book provides an excellent overview for scientists who are involved in the field of neural transplantation and its various emerging applications to treat neurodegenerative diseases and demyelinating disorders. Because of its emphasis on methods of neural transplantation rather than on the design of clinical trials it will be of use to basic scientists and those clinicians involved in transplantation programs either in a laboratory setting or in a clinical research trial setting.

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DISORDERS OF BRAIN AND MIND. 1998. Edited by Maria A. Ron and Anthony S. David. Published by Cambridge University Press. 373 pages. C\$62.93 approx.

This splendid book contains contributions of leading international authorities from major academic centres in the United Kingdom and the United States. Each of the seven sections consists of two papers and these include: the neuropsychology of the frontal lobes and structural abnormalities in schizophrenia; the

neuropsychology of basal ganglion disorders; the pharmacology of brain dopamine systems and implications for the cognitive pharmacotherapy of schizophrenia; neuropsychology of memory and amnesia with clinical and neuropsychological case studies; psychiatric manifestations of demonstrable brain disease and structural brain imaging in the psychoses; a neurobiological perspective of the behaviour disorders of epilepsy and chronic experimental epilepsy; a developmental neuropsychiatric perspective of early disorders and later schizophrenia; the hallucination as a disorder of brain and mind; and magnetic resonance spectroscopy in neuropsychiatry.

The introduction is written by D. Frank Benson who pays tribute to Dr. Lishman as the first professor of neuropsychiatry at the Institute of Psychiatry in London and who influenced the intellectual development of a generation of psychiatrists, neurologists and psychologists, many of whom were contributors to this book. The papers are well-written with numerous subheadings and they include a large reference literature.

The text provides an up-to-date and multidisciplinary overview of the study of the healthy brain and the physical causes of psychiatric and behavioural disorders. With some topics, a clinically-oriented chapter is followed by one which deals with the underlying basic science with attention to advances in structural and functional neuroimaging. The book is an excellent review of the current status of neuropsychiatry and is highly recommended for clinicians, for researchers and for students.

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ADVANCES IN MULTIPLE SCLEROSIS CLINICAL RESEARCH AND THERAPY. 1999. Edited by Sten Fredrikson and Hans Link. Published by Martin Dunitz. 232 pages. C \$184.60 approx.

Advances in Multiple Sclerosis Clinical Research and Therapy is edited by two well-known individuals in this field, Sten Fredrikson and Hans Link, both from the Karolinska Institute in Stockholm, Sweden. The textbook is multi-authored and brings together expertise from many individuals who have contributed widely to our understanding of the immunopathogenesis of MS and its management. The topics that are covered include: genetics, immunology, magnetic resonance imaging, therapy, and organization of MS care. The latter of these topics includes chapters on clinical practice guidelines, advances and new trends in MS rehabilitation, and several examples of how MS care and research is coordinated in either national or regional centres in several different countries. There is also a chapter dedicated to describing MS-COSTAR which is a database adapted for MS clinical research.

Several chapters are particularly well-written including those related to the genetics of MS (Dyment, DA; Steckley, JL; Ebers GC), Complement mediated mechanisms of injury (Scolding, NJ), diffusion magnetic resonance imaging (Clark, CA; Miller, DH), and several chapters related to the therapy of MS that encompass: a) emerging therapeutic options (Noseworthy, JH); b) gene therapy (Martino, G; Furlan, R; Poliani, PL; et al.) and c) the rationale for antiviral therapies (Andersen, O). Several chapters provide an introduction and give a cursory overview of areas of relevance to MS immunopathogenesis, but fall short of comprehensive review. This is exemplified in chapters related to the immunology of MS, both in relation to mechanisms of autoimmunity and effector

mechanisms in disease. Discussion of adhesion and homing, T cell mediated biology, chemokine receptors, matrix metalloproteinases, cytokine networks and the pathological heterogeneity of MS are distressingly absent. Two pages in the chapter on emerging therapeutic options in MS by John Noseworthy provide some insight into the pathogenic mechanisms underlying MS, however, these are not further developed in other chapters.

I found the chapters on MRI of relatively high quality, although a good deal of the discussion was repetitive. The chapter on diffusion magnetic resonance imaging in MS by Dr. David Miller and colleagues is particularly insightful. I was a bit surprised, however, that acknowledgement was not given in these chapters to the concept of multimodal MRI approaches currently being explored to improve correlation with pathological studies and disability rating scales.

The chapters discussing management approaches and rehabilitation have been inadequately addressed in many other textbooks related to MS and are a welcome addition; although, they appear somewhat out of context to the subject matter of the rest of the book. Unfortunately some of the chapters, particularly those related to immunotherapy, were out of date. In addition, many of the references in several chapters were also out of date and in one chapter the most recent reference dates to 1998. The text does give a reasonable overview of multifaceted aspects of MS research and care, but has a singular lack of focus.

The target audience for this book is difficult to deduce. It is, for instance, unlikely that the section on MS care and rehabilitation would appeal to individuals with a basic science orientation. It is equally unlikely, however, that those who are involved primarily with rehabilitative care would be drawn by the more scientifically focused chapters, particularly those that explore immunological, genetic, and MRI subject matter. The text did not seem focused enough for non-MS practitioners and it is not comprehensive enough for individuals working directly in this field. It is acknowledged that in textbook format it is difficult to provide an up-to-date review of subject matter related to a field that is as rapidly moving as research and therapy in MS. Although the editors of Advances in Multiple Sclerosis Clinical Research and Therapy have brought together several experts in the field to discuss their areas of expertise, the textbook, as a whole, falls somewhat short of its perceived target.

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THE FACIAL NERVE-2ND EDITION. 1999. Edited by Mark May, Barry Schaitkin. Published by Thieme. 877 pages. C\$298.50 approx.

Mark May's 2nd edition of the Facial Nerve is a fitting testament to the clinical career of the senior author who has spent the majority of his professional career (35 years) involved in the management and rehabilitation of patients with facial nerve disorders (by his own estimation over 3500 at the time of publication). A professor emeritus in otolaryngology at the University of Pittsburgh, May has long been known as a most personable and leading researcher in field of facial nerve dysfunction. Readers will surely find the text easy to comprehend. As it is somewhat of a testimonial it also provides us with a number of unique personal reflections on the effects of facial paralysis (both May and Schaitkin each developed Bell's palsy independently) on the individual.

As in the first edition, the book is divided into sections