

an interesting discourse on the history of minimally invasive neurosurgery, which includes the evolution of diagnostic technology, neuroanatomy, instrumentation, hemostasis, microscopes and endoscopes. The following two chapters describe the concept of 'light and sight' which is effectively the combined advantages of the microscope with the endoscope. Chapter 5 is a largely ineffective description of the general neuroradiologic principles involved in imaging intracranial cerebrovascular and neoplastic disorders. The next chapter describes the technical considerations to be made in 'keyhole' approaches, which are not dramatically different from those required for any surgical approach to intracranial disease. Four standard 'keyhole' craniotomies are described in moderate detail, these include the supraorbital, subtemporal, interhemispheric and transcortical-transventricular approaches. The final chapter in this section muses on the future of 'keyhole' surgery, including the application of neuro-navigational systems, intra-operative imaging technology and robotics.

The book finishes with 25 illustrative cases. Each case includes a brief clinical summary, an overview of possible surgical approaches, the actual keyhole procedure employed, patient outcome and relevant comments. This section is replete with illustrations and photographs. Although the schematic drawings are effective and clear, many of the intra-operative pictures are murky and not entirely helpful. Included in the list of cases treated by these techniques are aneurysms (anterior and posterior circulation), meningiomas, pituitary adenomas, arterio-venous malformations, cavernomas, craniopharyngiomas and epidermoids. Operative complications are honestly reported.

The book stands as an 'interesting read' with the stated ambition of initiating interest and progress in the 'keyhole' concept. It does not specifically describe how the surgeons were able to work through such small openings or the actual advantages of involving an endoscope, outside of looking around corners. Although the concept is empirically sound, the book does not attempt to prove that the 'keyhole' approaches provide the equivalent patient outcome as standard craniotomies. Clearly the approach is feasible, but the reader is left with a desire to know the outcome of large series of patients treated in this fashion, the procedural time required while using keyhole openings and the learning curve for the approach. Nevertheless the text is a worthwhile investment for those who question what frontiers remain in neurosurgery and in what way they might be conquered.

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**NEUROMUSCULAR DISEASES: FROM BASIC MECHANISMS TO CLINICAL MANAGEMENT. MONOGRAPHS IN CLINICAL NEUROSCIENCES: VOL. 18.** 2000. Edited by F. Deymeer. Published by Karger. 196 pages. C\$241.00 approx.

This book is Volume 18 of a serial publication "Monographs in Clinical Neuroscience". This volume was edited by F. Deymeer of Istanbul, Turkey. It has 12 chapters, each one authored by one or more experienced neuromuscular clinicians in their respective fields. Because of multiple authorships in some chapters, a total of 25 authors contributed.

What type of readership did this book target? Clearly, mainly practicing neurologists, other specialists, and residents to serve as a concise reference source at the bedside. Although it is bigger than a

pocket book-size reference, in principle, it could pass for one. The embraced subjects are both myopathies and diseases of the peripheral nervous system. However, one wonders what guided the editor to include or omit certain topics. For example, the omission of inflammatory myopathies, classical autoimmune myasthenia gravis and sporadic ALS is curious and represents a major deficiency. This particularly stands out as a paradox, since in a lead position, a 14 page chapter is devoted to myoblast transfer, a procedure that is not particularly promising for the treatment of muscle disease.

As with every multi-author publication, there is considerable variability of the caliber of individual chapters, both from the clinical and basic scientific standpoint. This reviewer finds Chapter 1, 2, 6, 7 and 12 to be particularly scholarly.

There are numerous larger, excellent, recent texts on myology as well as peripheral nervous system diseases on the market. This book may find a niche in this crowded field on account of being concise and covering muscle and nerve diseases under the same cover. The relatively high price will not help in this endeavor.

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**COGNITIVE NEUROREHABILITATION.** 1999. Edited by Donald T. Stuss, Gordon Winocur, Ian H. Robertson. Published by Cambridge University Press. 385 pages. C\$154.00 approx.

One of the major challenges in neuroscience is to restore function following brain damage. In this regard, the ability to restore, in whole or in part, cognitive function following brain damage, from neurodegenerative disorders such as Alzheimer's disease, traumatic brain injury or stroke, would represent a pinnacle in neuroscience endeavours. The notion that, once the brain is damaged it cannot be repaired, no longer holds. In an age of explosive growth in the area of neuroscientific research at molecular, cellular, whole organism, and societal levels, the publication of Cognitive Neurorehabilitation is timely.

In 1995, the Rottman Research Institute of the Baycrest Centre for Geriatric Care, Toronto, Canada, held its 5th annual conference entitled, "*Cognitive Rehabilitation of Acute and Age Related Brain Disorders*". At the urging of the attendees, the organizers embarked on a project to compile the proceedings of this conference into a book. The presenters were asked to provide a detailed and up-to-date chapter on the subject they presented. The result of this endeavour is a more comprehensive edited book rather than a mere compilation of conference proceedings.

This book has four sections and a total of 22 chapters. Each section starts with an overview prepared by one of the editors.

Part I deals with "*Mechanisms of Principles of Recovery*". The chapters include comprehensive reviews of subjects ranging from neuroplasticity, neurotransplantation, neuroimaging, compensation in neurorehabilitation, sex hormones in recovery, and psychosocial environment in cognitive rehabilitation.

Evidence is provided that the nervous system does have the capacity to regenerate in animal models. The field of neuroimaging is now posed to make a significant impact on the care of patients with brain dysfunction, due to recent advances in neuroimaging techniques.

Part II deals with "*Pharmacological Approaches*". In this section there are chapters that deal with various aspects of neuroprotection, particularly in traumatic brain injury. A chapter on pharmacological