

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.

Brian D. Toyota
Vancouver, British Columbia

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.

George Karpati
Montreal, Quebec

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

interventions in Alzheimer's disease has also been included. While neuroprotection is still in its infancy, symptomatic treatment of cognitive function in some patients is now feasible.

Part III deals with "*Clinical and Management Issues*". There are several chapters that deal with functioning of rehabilitation programs. The chapters deal with diagnostic issues and emphasize the need for a precise diagnosis. There are numerous factors that contribute to successful rehabilitation. Within this context, the issue of assessment of outcome has been also addressed in various chapters.

Part IV deals with "*Neurorehabilitation Techniques*". In this part there are chapters describing the neurorehabilitation approaches to aphasia, attention, executive disorders, as well as rehabilitation of patients with traumatic brain injury and memory rehabilitation in the elderly.

In a multi-authored, edited book such as this, various opinions are expressed and this is refreshing. This book has brought together individuals with expertise from molecular, cellular, psychological, and society levels. Each editor has provided an overview and opinion about the subject matter. The diversity of opinions reflects the current understanding of this complex subject. While each reader will obviously come up with his or her own conclusions about individual chapters, it is important to be able to compare one's thoughts with those of others with expertise in this field. There are many developments of cognitive neurorehabilitation that require further research and development. Some aspects, such as neuroprotection, our understanding of neuroplasticity, and how this could be used in neurorehabilitation, are in their infancy. This book represents a thorough and comprehensive review of the subject of neurorehabilitation, both from a basic science, as well as a clinical point of view, and should serve as an excellent starting point for neuroscientists interested in cognitive function.

*Sultan Darvesh
Halifax, Nova Scotia*

PARKINSON'S DISEASE AND PARKINSONISM IN THE ELDERLY. 2000. Edited by Jolyon Meara, William Koller. Published by Cambridge University Press. 251 pages. C\$73.42 approx.

This compact volume is a collaborative effort authored by a group of American neurologists and a group of geriatric and rehabilitation specialists from the United Kingdom and Ireland. The book addresses the diagnosis and treatment of parkinsonism, specifically in the elderly. Chapters are included which review the differential diagnosis of parkinsonism and discuss other disease processes which may mimic some parkinsonian features in older age groups. A very helpful chapter discusses "gait apraxia" and reviews the complex classifications that have been applied to patients with isolated gait disorders. This chapter helps clarify the fact that not all shuffling gaits in the elderly are caused by Parkinson's disease. Drug-induced parkinsonism and essential tremor are discussed in separate chapters. Treatment is reviewed in detail insofar as medical aspects are concerned, but very little is said about neurosurgical management, beyond the statement that few elderly patients are likely to be candidates. Unfortunately, not all of the discussions on treatment are of general applicability. For example, apomorphine is mentioned in several chapters as playing a major role in patient management, but this medication is not readily available in North

America. The authors emphasize the importance of a multidisciplinary team approach and of rehabilitation to the management of the elderly parkinsonian patient. Chapters on physiotherapy, occupational therapy, and speech and language therapy provide extensive discussion regarding the utility of these modalities. The value of community-based nurses in managing the elderly parkinsonian individual with home visits is a major component of the therapeutic approach advocated in this book. Although this appears to be a very efficient approach, it has not been widely implemented in our medical system.

This book should appeal to anyone who deals with medical problems in the geriatric population. It would be of value not only to neurologists and geriatricians, but also to nurses, physiotherapists, occupational therapists, speech therapists, etc. Its major strength lies in its advocacy for a multidisciplinary approach and for the importance of rehabilitation in patient management. It provides food for thought concerning how we might care for these patients better within our medical system.

*W. R. Wayne Martin
Edmonton, Alberta*

BENIGN CHILDHOOD PARTIAL EPILEPTIC SEIZURES AND RELATED EPILEPTIC SYNDROMES. 1999. By CP Panayiotopoulos. Published by John Libbey & Co. Ltd. 406 pages. C\$141.75 approx.

The recognition of the childhood epileptic syndromes and their careful delineation has been a major contribution of the European pediatric neurologists during the past two decades. The book being reviewed, a single author text by Panayiotopoulos, outlines the experience and conclusions of a dedicated epileptologist over the past 25 years.

The book is logically arranged, beginning with a brief review of epilepsy and the benign partial epilepsies of childhood. This is followed by a detailed review of benign Rolandic seizures, by far the commonest of the partial seizure syndromes. In chapter 5, allowing for a misprint in the title, there is a review of the implications regarding children who have centro-temporal spikes, but no seizures, and the figures regarding the incidence of neurologic disorders are quoted. The question of whether this is guilt by association or cause and effect is still left unresolved, but such is part of the challenge of clinical medicine.

The occipital seizures and allied epileptic syndromes are described in great detail using, as a basis, the author's own data from his many years of research in the subject. He delineates carefully the more common early childhood onset form of benign occipital seizures (Panayiotopoulos' syndrome) and distinguishes this from the later childhood onset form. There is a discussion of the implications of occipital spikes both in normal children and those who are neurologically impaired, and an excellent description of the EEG findings both with and without visual fixation, and this is followed by a comprehensive review of the literature of these syndromes.

Because of the clinical similarities between basilar migraine and late childhood onset benign occipital seizures and the conflicting views expressed in the neurological literature, this receives the author's attention across two chapters. It is always heartening to see views forcefully and well-expressed in this era of mealy mouthed scientific timidity, and Dr. Panayiotopoulos reviews, dissects and