

clinical disorders. Those interested in clinical disorders may also find the book "Handbook of Ataxia Disorders" by Thomas Klockgether, 2000 (published by Marcel Dekker) to be of use. However, any book on the ataxias cannot keep up with the rapid advance in genetic knowledge. For example, the Manto/Pandolfo book, with a publishing date of 2002, has chapters on Spino Cerebellar Ataxias 1-8. As of April 2002, seventeen spino cerebellar ataxias have been classified.

A second strength of the book is its presentation. All chapters read well and are appropriately succinct, which is presumably the result of judicious editing. The occasional use of color figures throughout the book is helpful especially in the chapters on neuroanatomy and stroke, and for figures of histology sections. I encountered one small problem: the index, although extensive at 16 pages, did not always direct me to the appropriate place in the text where the word of interest occurred.

A major weakness of this book is its cost. Although one expects big glossy text books to be expensive, \$362 is going to be above buying threshold for many people. Pity, because in these times of information overload it is convenient (or even essential) to have one definitive book on the shelf for reference without having to expend time trudging to the library or navigating through the internet. For those interested in the cerebellum, this book is the best comprehensive reference source currently available.

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DISORDERS OF VOLUNTARY MUSCLE. 2001. Seventh edition. Edited by George Karpati, David Hilton-Jones and Robert C. Griggs. Published by Cambridge University Press. 775 pages. C\$346.00 approx.

The book is divided up into four sections titled The Scientific Basis of Muscle Disease (11 chapters extending over 215 pages), Methods of Investigation of Muscle Disease (5 chapters extending over 127 pages), Description of Muscle Disease (18 chapters extending over 352 pages), and The Principles of Management of Muscle Disease (2 chapters extending over 49 pages). A total of 55 authors contributed to the book.

In the Preface, a number of statements are made which lead the reader to expect that, as they read on, they will find:

- the latest information on the etiology and pathogenesis of diseases of skeletal muscle,
- pertinent summaries of the scientific advances in molecular biology, developmental biology, immunopathology, mitochondrial biology, ion channel dynamics, cell membrane and signal transduction science and imaging technology, and
- essential information on history taking and physical examination and informative illustrations.

It also states that if the reader is a practising physician (in neurology, orthopedics, pediatrics, rheumatology, psychiatry and other disciplines) they can expect:

- to find the material presented in a clinician-friendly format and
- by being familiar with the contents of this book, they should be able to maintain a state-of-the-art ability to diagnose and treat diseases of skeletal muscles with a sufficient understanding of their scientific basis.

Finally, it states that if the reader is a medical or graduate science

student, a resident or a scientist, who wishes to familiarize themselves with muscle disease, then, this book will serve as a concise and comprehensive text for them.

After reviewing the book, my conclusion is that these goals have been admirably achieved.

In general, the text was easy to read and most chapters, even if read in isolation, allowed the reader to come away with an overview of the subject under discussion. The tables and diagrams, which appear frequently throughout the text, are useful. Most of the illustrations are in black and white. Unfortunately some are not in sharp focus (especially in the chapter on MRI and spectroscopy), thus diminishing their value. The quality of the technical editing is otherwise exceptional.

Now for some specific comments about a number of chapters. Chapter 17, on examination and investigation of patients, was very well done; chapter 18, on classification of muscle disease, reflects the rapid changes which are occurring in this domain; chapter 20, on the limb girdle dystrophies, demonstrates the progress which has been made in understanding and sorting out of these diseases; while chapter 29, on oxidative phosphorylation disease of muscle, shows how much more there is still to be done. Most of the chapters describing the various types of muscle disease presented a brief, focused, clinical description of the diseases, which I thought was very useful. This was not the case in chapter 19 on the dystrophinopathies, a chapter which was otherwise a very comprehensive review of the subject.

As a clinician who has been involved with muscle disease patients for more than 25 years, the two chapters I found most exciting in this wonderful book were chapter 2, on the developmental biology of skeletal muscle, and chapter 3, on the molecular and cellular biology of muscle. My excitement came not only from the new information I gained from reading these comprehensive reviews, but from being able to see how fast this field is moving (as witnessed by the fact that roughly three-quarters of the references listed are from material published beginning in 1995). I believe the time is fast-approaching when we will begin to understand some of our longstanding clinical observations (for example, something as basic as why certain diseases produce certain patterns of muscle involvement) as well as being able to help our patients through the development of treatments targeted at restoring disturbed basic mechanisms underlying the various diseases.

In summary, this is an excellent book, it is easy to read, it is remarkably comprehensive and as current as any textbook is ever going to be. I would recommend it highly to any neurologist or any neurological trainee. I have my copy in a location where I keep books that I need to have available for easy reference. I know I will be referring to it frequently.

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EPILEPSY AND MOVEMENT DISORDERS. 2002. Edited by Renzo Guerrini, Jean Aicardi, Frederick Andermann, Mark Hallett. Published by Cambridge University Press. 557 pages. C\$193.40 approx.

Although traditionally classed as separate entities in neurology it can at times be difficult to clinically differentiate between epilepsy and movement disorders. The boundaries, which distinguish these

two conditions, can be further blurred by the presence of both movement disorders and epilepsy in the same patient or the same family. A book that addresses these issues is a welcome addition to the literature on the subject.

This hard covered multi-authored book has been edited by a team of neurologists who have international reputations in movement disorders and epilepsy. This book is unique as it explores the overlap between these two conditions. It suggests that clinical observation may be insufficient to distinguish these conditions and that functional neuroimaging, neurophysiology, molecular biology and genetics must also be taken into account when determining if a patient has a movement disorder, epilepsy or both.

This book consists of 31 chapters each written by experts in the field. The book discusses the concept of channelopathies as a mechanism for the hereditary epilepsies and movement disorders and reviews animal models for these conditions. There are also chapters dedicated to motor cortex excitability as it is observed in epilepsy and movement disorders and the role of functional neuroimaging in the localization of epileptiform foci. There is a good discussion on the paroxysmal dyskinesias, the clinical similarities to epilepsy, syndromes with epilepsy and paroxysmal dyskinesia, animal models and the genetics of these conditions, as well as sections on myoclonic epilepsies, myoclonus, startle disease and pediatric movement disorders.

A drawback of the book is that the sections on genetics are already out of date. This is a problem with books which attempt to review the genetics of neurology. As the field of neurogenetics is moving forward so quickly any book on this topic would be outdated by the time it reaches publication.

This is an excellent book for any neurologist who is interested in the clinical, neurophysiological, molecular and genetic relationship between epilepsy and movement disorders. It is well-written and comprehensive and I am pleased to have it as part of my library.

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A DISEASE ONCE SACRED – A HISTORY OF THE MEDICAL UNDERSTANDING OF EPILEPSY. 2001. By Mervyn J. Eadie, Peter F. Bladin. Published by John Libbey & Company Limited. 248 pages. C\$61.45 approx.

This book presents an interesting history of our understanding of epilepsy. This comprehensive work is divided into: 1) phenomena included in the definitions of epilepsy, 2) the perceived pathophysiology and etiology of this disorder, and 3) how this understanding influenced its remedies.

Perceptive observations of epileptic phenomena appeared far earlier than any logically based concepts of pathophysiology. The authors describe a Babylonian medical text called *Sakikku* (All Diseases) published about 1050 BC. Its writers describe generalised tonic-clonic, Jacksonian and sensory seizures and may have compiled the first epileptic seizure classification. Such writings superseded the Hippocratic writings of about 400 BC. Subsequently, Galen's writings in the second century AD are thoroughly and succinctly covered but add relatively little to the *Sakikku*! Subsequently, Tissot in the 18th Century is apparently the first to have described absence seizures.

In the absence of confirmatory data such as EEG, many earlier

writings had an understandably narrow concept of epileptic phenomena. Such concepts broadened considerably by the 19th Century, particularly with the detailed descriptions by Herpin (1867). He recognised that the aura was not a prodrome but actually the beginning of the seizure and recognised three forms: peripheral, visceral and cephalic. Todd (1849) also described various olfactory, visual and auditory experiential phenomena.

Possibly the greatest single individual to advance our understanding of epilepsy was John Hughlings Jackson (1835-1911) who clarified pathogenesis, phenomenology, associated states, and the fact that epilepsy was a symptom as opposed to a disease. In contrast to some earlier authors, Jackson's concepts evolved over his lengthy career. Paradoxically, his interest in epilepsy stemmed principally from its insights into central nervous system function.

As stated above, progress in determining pathogenesis moved more slowly. A concept that epilepsy represented influence of supernatural forces was reluctantly abandoned. As expressed in Hippocratic writings (~ 400 BC), Greeks understood that unilateral motor seizures could represent contralateral cerebral hemisphere pathology. The very influential Galen (~ 130-210 AD) postulated that epilepsy was due to an obstruction of movement of "psychic pneuma" within the ventricular system whereas Hippocrates had cited a venous blockage as pathogenesis. Avicenna, an Arabian physician of the 10th Century, remaining within the ventricular concept, at least recognised that tonic seizures may originate in the region of the fourth ventricle.

Paracelsus, a 16th Century controversial figure advanced concepts significantly in hypothesising that epileptic seizures represented heightened brain activity as opposed to the Galenic blockage concept. Subsequently, Thomas Willis in *The Pathology of the Brain and Nervous Stock* (17th Century) demonstrated a welcome use of deductive logic in determining that epileptic seizures were a result of "explosions within the brain substance". Caton advanced our knowledge by demonstrating electrical activity of the rabbit brain in 1875, almost a century after Galvani first demonstrated electricity in the peripheral nervous system.

Subsequently, Jackson recognised that epileptiform activity did not arise from pathological tissue itself but in the normal cerebral cortical tissue surrounding it. (This profound observation is incompletely recognised even today.) On a background of studies by Fritsch and Hitzig (1870), Jackson realised that the several cortical functions were each localised in a different area of the cortex and that progressively evolving manifestations of an epileptic seizure represented ictal propagation. Perhaps equally profound was Gowers' postulate that each nerve cell was a storehouse of latent energy and that an epileptic seizure resulted from loss of an inhibition which normally prevents its inappropriate release (1881).

Logically based medical treatments for epileptic seizures followed descriptive and interpretive advances even more slowly. However, Galen recognised that appropriate diet and other lifestyle matters could measurably improve the course of epilepsy and this would be an early "quality of life" emphasis. A gradually increasing comprehension of epilepsy localisation ultimately lead to intracranial surgery, localising the intervention on the basis of ictal semiology as early as 1879 by William MacEwen in Glasgow, followed shortly by Victor Horsley in 1886.

The cortical localising studies in humans by Otfried Foerster could have been detailed more fully and his name spelled accurately. The enormous contribution of Hans Burger in establishing in