Contents: This 223 page book is comprised of 10 chapters. The first chapter has a wonderful historical review of the development of the concept of brain death. It also includes international guidelines and highlights variations in brain death declaration in different countries. The second chapter is a review of the pathophysiologic response to brain death. It describes, in excellent detail, the effects of brain death on the endocrine, myocardial, pulmonary, renal, and hepatic functions, as well as the effects on the coagulation system. The chapter ends with guidelines to maintain the brain dead body. Next, the review of the pathological changes of the brain following brain death are reviewed in great detail. The concepts of intracranial pressure, CSF physiology, cerebral autoregulation, and blood-brain-barrier are reviewed briefly and succinctly at the clinician level. Pathological characteristics of "respirator brain" are clearly delineated. An interesting perspective on brain death from the forensic angle is also presented.

Chapter 4 is the core of the subject matter and presents, in excellent clinical detail, the neurological examination of the brain dead patient with wonderful illustrations of the brainstem reflexes. The important concepts of irreversibility, brainstem death variation of total brain death, and issues regarding the necessary "observation" period are discussed in a clear and logical fashion.

The fact that the declaration of brain death is difficult and that the physician's level of expertise and competency are paramount in the process are also well-presented. The problem of one vs. two physicians being required to pronounce a patient brain dead and variations in different hospital policies are delineated. The rational use of confirmatory tests are presented to the state of the art available technology.

Chapter 5 reviews some issues in the difficult subject of brain death in children. This was one of the best reviews that I have read on the topic. The entire 6th chapter is devoted, very appropriately so, to conditions that mimic brain death and the persistent vegetative state. This chapter was expanded to akinetic mutism and locked-in syndrome.

The 7th chapter is devoted to reviewing the cultural conditions, attitudes, beliefs and values regarding issues of brain death, afterlife, reincarnation, and organ donation. This is a must-read for anyone who works in a multicultural center and deals with patients of very varied cultural backgrounds.

Chapter 8 deals with the practical legal aspects of brain death. Although this chapter is mostly directed to the US audience, it has an important discussion on the errors in diagnosis and/or management of the patients with brain death. The illustrative cases really bring the message home. The legal aspects of irreversible loss of consciousness vs. brain death and the legal "slippery slope" are well-described.

Chapter 9 is dedicated to the philosophical and ethical aspects of brain death written by Dr. James Bernat. The historical philosophical and ethical developments around the concept of death and accepting brain death as a standard of death are presented. The issue regarding when death really does occur after the cessation of heart beat and breath are discussed at the philosophical level. Irregularities in brain death patients, eg. EEG activity and preservation of water homeostasis and lack of DI in brain dead patients, that has been challenged in the past, is present in the "Conceptual confusion and legal fiction" section in an unbiased way. The controversial issue regarding organ procurement in dying patients who are "beyond harm" and in anencephalic infants is also succinctly presented and the moral, ethical issues, as well as the public perception, are presented. The final chapter ends this wonderful manuscript with details regarding setting up an organ procurement center, reviews the legislative implications and the organ donation criteria. The reasons for organ donor shortfalls are explored. The chapter ends with the protocols for medical management of the organ donor brain dead patient.

Strengths: This book is one of several new neurocritical care texts. However, it is unique in that it is the only book that focuses entirely on the issues surrounding brain death. The writing is concise and presented in a clear and logical format. Almost exhaustive details of clinical examination of brain dead patients and pitfalls, need and use of ancillary testing, and protocols for the management of organ donor brain dead patients, are provided with lucid and practical clinical guidelines for the front-line clinician. Each section is up-to-date and reviews the state of the art technology as well as current ethical, legal, religious, philosophical, and controversial issues that, at times, involve the diagnosis of brain death.

Deficiencies: There are no significant deficiencies of this book.

Recommended Readership: This is a book which should be part of the personal library of all neurologists, neurosurgeons, internists, general surgeons, and critical care physicians. It also should be available as a reference to all ICUs of all subspecialties.

Overall Grading: 5/5

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THE CEREBELLUM AND ITS DISORDERS. 2002. Edited by M-U. Manto and M. Pandolfo. Published by Cambridge University Press. 589 pages. C$362.00 approx.

For those with an interest in the cerebellum, these are both exhilarating and overwhelming times. They are exhilarating because of the wealth of new information coming from studies using a variety of new techniques (from neural cell cultures and brain slices to fMRI). They are overwhelming because of the vast amount of new information and the difficulty of seeing how it all fits together. For clinicians, progress in the basic sciences has led to the eagerly anticipated possibility of new drug treatments for the cerebellar ataxias. But which new discoveries are important? Which will lead to new treatments?

Twenty years ago when progress was slow and life was simpler, a book appeared which nicely summed up much of what was known about the physiology and neurology of the cerebellum. This book, "Disorders of the Cerebellum", consisted of 18 chapters and was written by three authors (Gilman, Bloedel and Lechtenberg). This has now been superseded by "The Cerebellum and its Disorders" edited by Manto and Pandolfo. The new book contains 40 chapters and was written by 70 authors. Consequently, a major strength of the new book is its breadth of coverage. This coverage includes six introductory chapters on embryology, neurotransmitters and function, three chapters on clinical signs and pathophysiology (including cognitive disorders of the cerebellum), 11 chapters on sporadic diseases affecting the cerebellum, three on toxic agents, one each on grafts and neuropathology, 10 on dominantly inherited progressive ataxias and five on recessive ataxias. Clearly, this book is a mine of information. The early chapters will be useful for teaching and general knowledge; the later ones for reference to

https://doi.org/10.1017/S0317167100018862 Published online by Cambridge University Press

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, physiatry 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 Hallet. 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