who need a more advanced reference while rotating through the neurology inpatient service.

Martin SuttonBrown
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FUNCTIONAL NEUROANATOMY. AN INTERACTIVE TEXT AND MANUAL. 2004. By Jeffrey T. Joseph, David L. Cardozo. Published by John Wiley & Sons. 575 pages. C$90 approx.

Most neurologists who are responsible for teaching in medical school are frustrated by the overwhelming ignorance of neuroanatomy demonstrated by the average student. The fact is that the typical first year neuroanatomy course is terrible. If ignorance were the only problem it would be bad enough, but the majority of students develop what amounts to a phobia which prevents them from enjoying this fascinating subject or ever feeling comfortable in dealing with neurological problems.

My first reaction to this text was that it would never fly. It is just too heavy. However, when I began to read it, I felt a strange sensation. Here was a beginning text which I, like every neurologist, have daydreamed of writing, an approach to anatomy in which the relevance of every fact is immediately illustrated by a clinical case. Gone are the endless lists of connections between meaningless nuclei, presented for brute memorisation without any hint of what might be important or useful. Anatomy, physiology, and clinical neurology are seamlessly and beautifully integrated. Anatomical diagrams and MRIs are matched throughout. The text is clear and sparkling. I found myself reading with pleasure tempered by envy – I wish I had written it.

I hope that this book will be widely adopted. I am sure that applications to our residency programs would soar.

Jeff Donat
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AICARDI'S EPILEPSY IN CHILDREN, THIRD EDITION. 2004. By Alexis Arzimanoglou, Renzo Guerrini, Jean Aicardi. Published by Lippincott Williams & Wilkins. 487 pages. C$175 approx.

The extraordinary Professor Aicardi is joined by two younger rising stars (Renzo Guerrini and Alexis Arzimanoglou) in the most recent, third edition of Aicardi's Epilepsy in Children. The authors all work from tertiary European epilepsy centers and the book is not for beginners – it is detailed and exhaustively referenced (>4000 citations). The size of this literature is almost beyond imagination.

The book is thoughtfully organized. The first section is made up of two chapters that deal in a general way with the definition of epilepsy, seizure types and epilepsy syndromes. The definition of epilepsy is pointed out to be particularly problematic. The second section (nine chapters) addresses the major types of seizures and the syndromes that are associated with these seizures. This approach allows the reader to begin with patients as they present – with seizures first and only later specific syndrome diagnoses. The third section (nine chapters) discusses special situations related to features such as age of onset, status epilepticus or genetics. A final section (five chapters) addresses issues of diagnosis, prognosis, medical and surgical treatment.

If you are an expert in epilepsy, I doubt that you will read the book from cover to cover – the detail is often overwhelming. Thankfully, the index is excellent. The strength of the book is the detail of seizure and syndrome description, but this is hard slogging. If you need to know the several types of tonic seizures that occur in Lennox-Gastaut syndrome, this is where you will find them clearly described. In some sections there is a tendency to overemphasize exceptions and sometimes fail to clearly identify the core features of a syndrome that are seen in the majority of cases. Many epileptic syndromes are not very precisely defined (not the fault of these authors!) and therefore, only a sophisticated reader will appreciate some of the nuances that the authors emphasize. However, the authors make it very clear when they are offering their own personal opinions about various issues.

In my opinion, the book is a bit weak in describing studies where the method of case ascertainment is critical, where complex statistics are important or where concepts of risk abound. Relative risk, odds ratio and meta-analysis are infrequently used terms. There is a somewhat negative attitude expressed about population-based research, largely based on concerns about the accuracy of seizure and syndrome diagnosis. You would never guess that there is a literature which indicates that experts often disagree about nearly every aspect of childhood epilepsy. In the section on neonatal seizures the one large, adequately powered, randomized study comparing phenobarbital with phenytoin gets less space than a single case report about the use of lamotrigine. The section on first febrile seizures gives little indication of the strength of each risk factor and the additive effect of independent risk factors. The section on social outcome does not discuss comparative studies with other chronic diseases. The section on mortality fails to emphasize the effect of co-morbidity and barely touches on suicide which is considerably more common than SUDEP.

However, overall, there is no doubt about the comprehensive and authoritative nature of the book. It will be an invaluable reference text for neurologists who treat a substantial number of children with epilepsy. Residents and fellows who want to read around their cases will find the book rewarding. Just don't start at page one and try to read all the way through!

Peter Camfield
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MIGRAINE IN WOMEN. 2004. Edited by Elizabeth Loder and Dawn A.Marcus. Published by BC Decker Inc. 196 pages. C$150 approx.

The editors have assembled an authoritative collection of chapters which are dedicated to selected aspects of migraine in women. An appropriate division of science and practical care in a refreshing blend of medical, psychological and social science is provided. The authors have maintained a consistent style, commencing each chapter with a case to demonstrate clinical applications of the content of each chapter. The authors often refer back to the case to provide additional clinical correlation. Each chapter has been preceded by a list of "Key Chapter Points" which focuses the prominent features of the chapter. A compact disc (CD) is included with the book that provides the opportunity to access this volume from your laptop or desktop, with complete text and diagrams (32.2 MB).

The issues specific to women have been effectively highlighted in each chapter. A broad view of the science and care of migraine in

women is provided. Even though migraine is more often found in women, this information has not been as easily found in other sources presented in this user friendly format.

The care of women migraine sufferers is addressed with the support of up-to-date research. Birth control, pregnancy and menopausal issues as well as hormonal influences and supplementation are specifically addressed with current understanding and recommendations provided. Effective editing has ensured that each chapter takes a different view of the topic and there is little overlap or conflict between the various chapters and authors.

The acute treatment chapter covers familiar aspects that have been extensively addressed in the last decade. The preventive therapy chapter covered the breadth of potential options, but was presented without clearly weighted comparisons of the evidence. Without this critical assessment of evidence, readers might not appreciate the differences between the results of recently performed studies and those studies that are two or more decades old. Pharmacologic therapies with weak evidence of efficacy are not adequately distinguished from more robust findings. The important aspects of drug interactions with contraceptive agents and the use of pharmacologic therapies in the reproductive years and in pregnancy are specifically highlighted. Throughout all chapters of this book, the information has been well-referenced to allow readers to review the primary sources.

The particularly outstanding chapters are: "Menstrual Migraine", "Migraine Management During Pregnancy", "Menopause and Migraine", "Oral Contraception, Estrogen Replacement Therapy, Migraine and Stroke", and "Psychiatric and Psychosocial Factors in Headache".

Neurologists as well as primary care physicians and specialists with an interest in headache or prominence of women in their practices will find this book valuable. The authors of each chapter effectively update current understanding of these important topics. This softcover book will be a reference that will become "dog eared" over years of use. It can be expected that this will be the first of many further editions as the science of migraine expands.

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HYPOTHERMIA AND CEREBRAL ISCHEMIA: MECHANISMS AND CLINICAL APPLICATIONS. 2003. Edited by Carolina M. Maier, Gary Steinberg. Published by Humana Press. 188 pages. C$ 99.50 approx.

Hypothermia used as a therapeutic application has a long history. It has been largely abandoned due to the complications and limited applicability of hypothermia. Encouraging results from phase 2 and 3 clinical trials of hypothermia in traumatic brain injury in the 1990s and the recently reported results of two prospective, randomized controlled studies generated great enthusiasm in developing protocol guidelines for the use of mild hypothermia in patients suffering from acute cerebral ischemia and traumatic brain injury. The *book Hypothermia and Cerebral Ischemia: Mechanisms and Clinical Applications* explicitly aims to provide a comprehensive review of mild hypothermia's therapeutic potentials, limitations and recent developments in both basic and clinical research.

This is a multi-authored text with 10 chapters. Recognized experts have contributed their knowledge and experience not only by exploring possible mechanisms of hypothermic neuroprotection but also by providing strong clinically relevant experimental evidence in the settings of global and focal cerebral ischemia and traumatic brain injury.

In the clinical aspect, the authors of this book have undertaken the ambitious task of providing a detailed historical background and recent clinical experience in the management of traumatic brain injury with moderate hypothermia, intraoperative and intensive care management of the patient undergoing mild hypothermia and clinical experience by using hypothermia to treat stroke patients.

The first chapter, Resurgence of Hypothermia as a Treatment for Brain Injury by Maier and Steinberg, is an excellent review which highlights important targets encountered by both researchers and clinicians regarding the implementation of hypothermia as a therapeutic strategy.

The time from injury to initiation of hypothermia may have a differential impact on clinical outcome. Hypothermia induced during ischemia provides substantial and lasting protection. The experimental results of postischemic hypothermia, which can provide very important information in clinical practice, are controversial. Colbourne and Corbett, in their chapter Postischemic Hypothermia in Rodents, emphasise the importance of sufficient hypothermia duration to gain persistent benefit with delayed cooling.

In criticism, there are some redundancies such as hypothermia and glutamate release in the setting of global ischemia, which have been discussed in detail in chapter 2. It is not necessary to mention this again in chapter 3 – Mild Hypothermia in Experimental Focal Ischemia. Unnecessary redundancy of the mechanism of hypothermic protection also can be found in chapter 4 and chapter 8. I also found an inappropriate description regarding the MCA occlusion model in chapter 10, in which authors point out that the technique of the MCAO model causes hypothalamic injury resulting in hyperthermia; there are actually several different techniques used in different species to make an MCAO model in experimental stroke study. The proximal MCA occlusion in rats by using the intraluminal technique may cause hypothalamic injury by transient or permanent occlusion of hypothalamic arterial perforators originating off the internal carotid artery resulting in hyperthermia, while the distal occlusion of MCA by a clipping technique rarely causes hypothalamic injury. Further, the results from our stroke laboratory demonstrate that proximal MCA occlusion in mice by intraluminal technique causes hypothermia rather than hyperthermia.

Overall, the book contains a plethora of up-to-date and important information on both basic and clinical research. It is worthwhile to recommend as a reference book for the student, scientist and physician who is interested in or involved in the study of mild hypothermia for the treatment of stroke and traumatic brain injury.

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