

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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