

Book & New Media Reviews



Sleep and Pain

Gilles Lavigne, Barry J. Sessle, Manon Choinière, Peter J. Soja (Editors). IASP Press, Seattle, WA; 2007, US \$80.00 (IASP members US \$65.00); 474 pages; ISBN 0-931092-62-0

It is pointed out, in the foreword to this most recent publication from the IASP Press, that most of us will have experienced, first hand, the effect of pain on sleep and vice versa. Despite this, and the proliferation of research in each area in recent years, it would seem that, for the most part, sleep is sleep and pain is pain and ne'er the twain shall meet. Until now that is. The editors of this volume, each of whom is an expert in one or the other area at Canadian institutions, have brought together contributions from a world-wide contingent of both basic and clinical scientists to provide their peers a reference intended to help span the gulf between pain and sleep specialists.

The volume is organized into two main parts. Part I is *The Science of Sleep and Pain*; Part II is *Clinical Aspects of Sleep Disorders and Pain*. Part I begins tantalizingly enough with brief and well referenced chapters, from experts in each of the two fields, intended to get those in the other camp up to speed. As a reader coming from the pain camp, I very much appreciated the first chapter, 'Why Do We Sleep?'. It provides a terrific overview, and introduces key concepts and terminology. I also found the second chapter, 'What is Pain, and Why and How Do We Experience Pain?', to be a good review of information I had, for the most part, heard before.

The subsequent chapters of Part I explore and expand upon some of the themes of the first two chapters, with emphasis on various interactions between sleep and pain. These chapters each provide a detailed overview of their topic, a discussion of the available evidence for current theories, the experimental models and methods used to generate these theories, and the limitations therein. It required considerable effort on the part of this reader, at least, to follow such discussion. While I could digest and enjoy a single chapter with moderate effort, progressing through this volume, chapter after chapter, was rather a slog. It would prove more rewarding to peruse the index and select the chapters of most interest. A broad range of topics

is available, and each chapter is well-written, with little redundancy. However, each chapter leaves the same impression; our experimental models are crude, our knowledge, though expansive, is barely the tip of the iceberg, and we are humbled again by the complexity of the human brain. We have much work to do.

Part II of the volume focuses on the clinical aspects of sleep disorders and pain. The first chapter deals with the clinical assessment of sleep and pain and their interactions, and discusses the tools commonly used to study this subject and their limitations. Subsequent chapters describe the results of such studies with patients in various pain states, including acute pain (burns, postoperative pain), and chronic pain, with an emphasis on fibromyalgia and headache, in adults and in children, and geriatrics. For a non sleep-expert like me, the chapter, 'Sleep Disorders that Can Exacerbate Pain', provided an excellent overview of primary sleep disorders. Another intriguing chapter is 'Pain in Dreams and Nightmares'. The chapter 'Alteration of Sleep Quality by Pain Medication' overlaps to some degree with the following chapter that discusses some suggestions for pharmacological management of sleep and pain interactions. The volume concludes with a chapter on 'Cognitive-Behavioral Treatment for Insomnia and Pain' that should not be overlooked.

Overall, the editors have achieved tremendous success in bringing together a broad range of information into one volume. This volume would be a good addition to any pain or sleep clinic library and would be an excellent starting point for anyone planning a review or research proposal in the field of sleep and pain. Indeed, the unifying theme of most of the chapters in this volume is the call for more research, better models, and further study. Actually, because of the dearth of good data, there is little to take back to the clinic after reading this book, other than an appreciation that pain and sleep interact in important ways, and the hope that, some day soon, we will better understand this interaction, and be able to provide improved treatment for our patients.

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Cardiopulmonary Bypass - Principles and Practice – Third Edition

Glenn P. Gravlee, Richard F. Davis, Alfred H. Stammers, Ross M. Ungerleider. Lippincott Williams & Wilkins, 2007. 816 pages, 360 illustrations, \$179.00 US. ISBN 978-0-7817-6815-3

Cardiopulmonary Bypass Principles and Practice – Third Edition is a comprehensive and authoritative text covering the entire scope of extracorporeal circulation. The role of this text is unique, as the subject matter is generally covered within just several pages of most standard anesthesia textbooks, and within just a few chapters in cardiac anesthesia textbooks. The third edition of *Cardiopulmonary Bypass Principles and Practice* builds on the second edition, primarily through an updated and expanded content, with additional chapters on extracorporeal circulation for the neonate, infant, and pediatric patients.

The book is organized into six major sections. The various sections address the relevant history of extracorporeal circulation, the related equipment, the relevant physiology and pathology, hematological considerations, clinical applications, and, finally, specific considerations for neonates, infants and children. There is a consistent writing style and format throughout the chapters. The book is well organized and easy to navigate when searching specific topics. Also, a summary list of key points included with each chapter is a very useful feature. While the tables and figures are generally well laid out, several key figures would have been more informative, had they been published in colour, instead of black and white.

The main strength of the book rests with its detailed consideration of the many aspects of cardiopulmonary bypass, as related to the day-to-day clinical practice of anesthesia for cardiac surgery. The third edition provides the reader with more fully developed discussions around the clinical applications of extracorporeal circulation, such as, anticoagulation, pharmacology, neurological protection, and acid-base management. The chapter on pharmacology and cardiopulmonary bypass is quite detailed and exhaustively referenced, providing an invaluable source of information. The chapters on anticoagulation and the prevention and management of perioperative coagulopathy should be of interest to all anesthesiologists. As the influence of antiplatelet drug therapy is being experienced increasingly outside of the cardiac operating room, more of our colleagues will be faced with the challenges of maintaining coronary perfusion while preventing major hemorrhage. This book summarizes the latest available information which addresses these challeng-

es. The book also addresses the use of cardiopulmonary bypass for non-cardiac surgery in a practical and clinically useful manner. This third edition also briefly considers the use of cardiopulmonary bypass in the management of patients with a compromised airway secondary to an anterior mediastinal mass. However, the book does not include a review of cardiopulmonary bypass considerations in the pregnant patient, which is one notable omission of content.

In my view, *Cardiopulmonary Bypass Principles and Practice – Third Edition* is a highly useful reference text in the field of cardiac anesthesia. It is generally easy to read and informative. This would be a useful text to complement the library of any anesthesia department where extracorporeal circulation is used in the support of patients undergoing cardiac and select non-cardiac surgery and/or in the resuscitation of select patients.

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