

REVIEWS OF EDUCATIONAL MATERIAL

James C. Eisenach, M.D., Editor

Anesthesia and Transplantation. Edited by Michael D. Sharpe, Adrian W. Gelb. London, Ontario, Butterworth-Heinemann, 1999. Pages: 560. Cost: \$125.00.

As an anesthesiologist who is involved in liver transplantation during my on-call time, it is with pleasure that I review this interesting and particularly well-written textbook. The publication is multiauthored and contains 22 chapters that are 15 to 30 pages in length. Contributors are respected experts in the field of transplantation. These authors are not solely anesthesiologists, but are also surgeons, intensive care physicians, immunologists, nephrologists, infectious disease physicians, endocrinologists, ophthalmologists, psychiatrists, pharmacologists, pathologists, and transplant coordinators. This multidisciplinary approach largely contributes to the strength of this book. Moreover, all of these experts point out what is really relevant to the clinical practice of transplantation within their particular field of interest. Each chapter begins with an outline, which provides the reader with an opportunity to scan the content for a desired topic. All of these elements make this book a particularly useful and pleasant tool for physicians who are interested in transplantation medicine.

The early chapters discuss the history of organ transplantation, organ resources, the determination of brain death, and the management of organ donors. The first chapter is very interesting and deserves particular comment. This chapter considers both the North American and European perspective regarding organ resources. The two following chapters are well structured and essential information is summarized in tables. The next chapter is dedicated to mechanical devices—a bridge to transplantation. Although very well illustrated, this chapter considers only heart transplantation. A note considering the artificial liver could have been an interesting addition.

In the core of the book, some seven chapters review the specific organs used in transplantation: the heart, lung, liver, small bowel, pancreas, kidney, and cornea. These chapters are well organized, clear, informative, and easy to read. They follow approximately the same architecture: history, reason to perform organ transplantation, pathophysiology of the recipient, surgical technique, and anesthetic management. I have only a few regrets. First, there is no chapter that discusses bone marrow transplantation, a procedure that frequently involves anesthesiologists. In the anesthetic-technique section, there is no mention of the recent developments (e.g., the use of new volatile agents or opioids), but this omission is not a major problem. In the chapter regarding liver transplantation, there is no section dedicated to the particular problem of fulminant hepatitis and cerebral protection.

The final chapters span important topics related to transplantation, including intensive care unit management, anesthesia in the patient undergoing transplantation, nutritional support, hematologic and psychosocial considerations, immunosuppression, infectious diseases, pharmacokinetic, and ethical issues. These topics are well presented and are full of useful information. The degree of overlap in this book is surprisingly low.

In conclusion, despite a price that is relatively high, this book is worth the investment. *Anesthesia and Transplantation* contains a lot of information that is directly related to clinical practice and, therefore, should be available in the library of any department of anesthesiology in which transplantation procedures are performed.

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Neurologic and Neurosurgical Emergencies. Edited by Julio Cruz. Philadelphia, WB Saunders, 1998. Pages: 569. Cost: \$145.00.

This multiauthored, first-edition text is published under the auspices of the International Society for Neuroemergencies. According to the editor, a neurosurgeon, the goal was to integrate into a single volume the current basic and clinical sciences that guide the treatment of patients with neurologic or neurosurgical emergencies. The book is generally successful in this regard. The publication's single greatest strength is that it is a multidisciplinary treatment of the topic and, as such, it reflects the different but complementary perspectives of various specialists. The book's 20 chapters are written by 54 authors from specialties such as neurology, neurosurgery, radiology, anesthesiology, internal medicine, critical care, emergency medicine, pediatrics, rehabilitation medicine, and nursing. The chapters are generally well illustrated with useful tables, charts, and radiographs, and successfully place clinical management in the context of the available basic science. All of the chapters have a practical orientation, and whereas most are directed toward neurologists or neurosurgeons, anyone with an interest in neurologic emergencies will find an abundance of useful information.

The first few chapters regarding the evaluation of the patient with neurologic injuries and the cardiac and respiratory complications that are associated with acute neurologic diseases are thorough and well referenced. These are followed by 15 chapters that are devoted to specific acute neurologic disorders, nursing care, predictors of long term prognosis, and rehabilitation. The chapters about the pediatric patient, neuroemergencies during pregnancy, subarachnoid and intracranial hemorrhage, intracranial and pituitary tumors, neuromuscular diseases, brain trauma, and acute spinal cord disorders are well written and will be of particular interest to anesthesiologists. As with any multiauthored text, there is some inevitable variation in writing style between chapters; however, the editor does a good job of minimizing redundancy and maintaining consistency. The majority of the references are current, and many references of historical importance are included. Chapter 14, which does not contain a single reference published within the last 10 years, is an exception to this generalization.

A problem encountered when attempting to systematize the clinical management of patients who are severely ill is that the science, basic or clinical, that supports certain practices is often incomplete, conflicting, or is rapidly changing. This is certainly the case here. Statements about clinical management based on extrapolation of nonhuman data and clinical experience are common. To the book's credit, however, these statements are frequently accompanied by the admonition that such extrapolations are suspect and that proper studies are lacking. This is exemplified in Chapter 9, in which the authors discuss and

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advocate use of "triple H therapy" for the management of cerebral vasospasm based on clinical experience, despite the lack of controlled, randomized studies to prove the treatment's effectiveness. One area of much-current controversy and research that receives relatively superficial and anecdotal discussion is the use of moderate hypothermia in the setting of acute brain trauma. This is unfortunate, but not the rule; other timely topics (e.g., thrombolytics for acute ischemic stroke, hyperventilation in the management of head trauma) receive more balanced and complete treatment.

Clearly, this book is not a replacement for a text about neurosurgical anesthesia or the anesthetic treatment of patients with neurologic disease. In fact, the discussion of anesthetic management tends to be superficial, of the "cook book" variety, or is frankly wrong. There are, for example, statements that etomidate should be given slowly for a rapid-sequence induction, that a nonbreather mask delivers 100% oxygen, and that the hallmark of a good neuroanesthetic is "... deep anesthesia with neuromuscular blockade during intracranial microdissection. . ." Similarly, statements that a patient undergoing aneurysm clipping requires volume loading with albumin, placement of a central line, topical administration of lidocaine to the airway, and the use of a low-dose opioid technique reflect, at best, local biases that are not shared by the reviewers. Overall, *Neurologic and Neurosurgical Emergencies* is a scientifically grounded, thorough, and practical compendium of the issues surrounding the medical and surgical management of acute neurologic and neurosurgical conditions. The book is neither intended nor suited to be a stand-alone text for the anesthesiologist. It is, therefore, best viewed as a reference or resource for the anesthesiology trainee or the practicing anesthesiologist seeking a comprehensive review of the rationale for the clinical management of a broad range of neurologic and neurosurgical emergencies. In this regard, the book succeeds in achieving its stated purpose and will be a welcome addition to the departmental library.

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Complications of Regional Anesthesia. Edited by Brendan T. Finucane. Philadelphia, Churchill Livingstone, 1999. Pages: 1,332. Price: \$50.00.

The use of regional anesthetic techniques has greatly increased in recent years and numerous new approaches, especially those for peripheral nerve blocks, have been recently described. Although we know from large surveys that regional anesthesia is safe, complications may occur even in hands of experienced anesthesiologists. To increase knowledge of complications associated with regional anesthesia, a free phone line has been created in France. The principle relies on the constant availability of an expert who responds to questions asked by participants. Our experience with the French system has made us

aware of the need for expert advice when addressing complications of regional anesthesia. Therefore, it would seem that a book that aims to address the complications and the adverse reactions that are associated with regional anesthesia is welcome in this context. Is *Complications of Regional Anesthesia* a worthwhile purchase?

Dr. Finucane has brought together an expert group of contributing authors. The 332 pages of this book are organized into 20 chapters, some dealing with complications related to central and peripheral nerve blocks, and others with more specific areas (e.g., complications of pediatric, obstetric, ophthalmic and intravenous regional anesthesia). Moreover, interesting and practical subjects, such as the evaluation of neurologic injury after regional anesthesia, regional anesthesia and infection and regional anesthesia in the presence of neurologic disease, are addressed. Medicolegal aspects and case studies of regional anesthesia are described and discussed.

The topics of treatment of local anesthetic toxicity and of postanesthesia nerve injury could have been more complete. Indeed, expert opinion by the authors for these rare problems would have been particularly helpful, given the scant literature that addresses these problems. For example, the importance of a cardiac massage in terms of effectiveness and duration as a means to eliminate bupivacaine from the myocardium during local anesthetic toxicity is not discussed. Also, the possibility of surgical decompression of an injured nerve is not mentioned, though it may be useful, provided that the operation is performed in the first 6 months after nerve trauma. Complications related to peripheral nerve blocks in pediatric anesthesia are not discussed; however, this omission is most likely because of the limited use of peripheral as opposed to central blocks in pediatric practice. Complications associated with the lumbar plexus blocks, aside from those cited in the text, have been reported (e.g., renal subcapsular hematoma, accidental epidural, spinal injection with a posterior approach, catheter knots, epidural injection with a three-in-one block), and recommendations to minimize these complications have been published. These recommendations could have been included in the text.

These comments should not detract from the fact that this book is comprehensive and well written. Graphs, tables, drawings, and radiograph imaging (radiographic images in the chapter dedicated to complications of regional anesthesia in chronic pain therapy are small and difficult to read) are used when appropriate. This book may increase our knowledge and improve our therapeutic attitude when facing a complication related to our practice. It could also be used as a handbook to provide a quick, concise, and accurate reference for most issues that are encountered in regional anesthesia. *Complications of Regional Anesthesia* is a timely publication that specifically addresses the complications related to regional anesthesia. Fortunately, this task has been performed by a team of experts under the supervision of Brendan T. Finucane, and has resulted in a book that should find its place in the library of every anesthesiologist—not only trainees, but also practitioners.

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