

REVIEWS OF EDUCATIONAL MATERIAL

James C. Eisenach, M.D., Editor

Anesthesiologist's Manual of Surgical Procedures. By Richard A. Jaffe, Stanley I. Simpsons. Philadelphia, Lippincott Williams & Wilkins, 1999. Pages: 1,200. Price: \$125.00.

I still remember the first time I read this book, preparing for an in-training exam, after I was given a stack of references from my attending physician to familiarize myself with various surgical procedures and their anesthetic implications. I was wondering how I could absorb what appeared to be an overwhelming amount of information overnight, and could clearly have benefited from this book. Of course, I provided anesthesia for the patient the next day, and demonstrated at least adequate reading to satisfy my attending physician's inquiry. Since then, I frequently visit this book when in doubt about unfamiliar surgical procedures.

This book is a true collaborative contribution from surgeons and anesthesiologists. It is neither a textbook with lengthy descriptions, nor is it a procedures book with a lot of detailed descriptive diagrams; it is a product from the extracts of both. It covers almost any surgical and anesthesia procedure, and allows readers to be able to get acquainted efficiently.

Chapters in the book are classified by surgical subspecialties with descriptions of individual surgical procedures in each chapter, starting with techniques by surgical subspecialists, including the position, incision site, special instrumentation, estimated blood loss, surgical time, and common surgical complications and their incidence. This is followed by the subspecialty anesthesiologist's description of anesthetic considerations for this type of surgery, including preoperative evaluation (systemic implications of the disease process, special concerns, necessary preoperative laboratory tests, and premedications), intraoperative management (divided into induction, maintenance, emergence, and some special considerations such as fluid and blood products management), positioning, special monitoring, unique anesthesia techniques (controlled hypothermia, cardiac arrest, control hypotension, and others), and postoperative care, mainly focusing on postoperative complications and pain management. This book also contains a lot of illustrations and tables; I found these extremely helpful for understanding the features of surgery, as well as the demands of anesthesia. The cited references certainly would help those wishing to know more in-depth information about the procedures.

This new edition is 200 pages longer than the previous one. In addition to being revised with surgical techniques and anesthetic considerations, the authors added several new chapters and sections, such as surgery for epilepsy, reconstructive operations for sleep disorder, minimally invasive (off-pump) coronary bypass surgery, an entire chapter of laparoscopic operations, expanded coverage for emergency operations for different traumatic injuries, a chapter on pediatric surgery that was expanded to include coverage of complicated congenital cardiovascular surgeries, a chapter on out of operating room surgery, and the additions to sections on preoperative evaluation and postoperative pain management for adult and pediatric patients.

This is an excellent reference book and covers almost all aspects of surgical procedures and anesthetic considerations. In my view, it would be suitable for all levels of anesthesia providers including residents, certified registered nurse anesthetists, and attending anesthesiologists; it also could be a valuable resource for our surgical colleagues to better understand our special concerns regarding certain procedures or patient populations. I would strongly recommend this book, and would keep it in the operating room office or break room.

Chuanyao Tong, MD., Wake Forest University School of Medicine, Winston-Salem, North Carolina. ctong@wfubmc.edu

(Accepted for publication May 15, 2001.)

Textbook of Obstetric Anesthesia. By David J. Birnbach, Sanjay Datta, Stephen P. Gatt. Philadelphia, Churchill Livingstone, 2000. Pages: 830. Price: \$145.00.

Worldwide, disparate practices of obstetric anesthesia exist because of geographic and cultural variations. The *Textbook of Obstetric Anesthesia* is prefaced by the concern that many well-established and superior techniques in this field should have already crossed geographic boundaries but have failed to do so. The authors attempt to "bridge the gaps" of diverse obstetric anesthesia practices by including an impressive list of 88 contributors from 29 countries. The textbook is unique in its international approach.

The book contains 56 chapters that range from 6 to 28 pages long. The contributors' diverse backgrounds may contribute to the considerable variation in chapter uniformity and the quality of content within the book. There is some consistency in that summary key points, key references, and case scenarios are presented near the end of each chapter. In most chapters, the case scenario is realistic, and management can be prescribed based on information presented within the chapter. However, in some instances, the scenario is only loosely related to information contained within the chapter. The book is logically divided into six major sections.

Section 1 contains nine chapters about physiology, pharmacology, and anatomy. Within section 1, there are wide differences in chapter quality and organization. Chapter 1, "Pain Mechanisms in Labor," is well-written, has wonderful figures, and even discusses cultural aspects of labor pain in keeping with the editor's intent. Similarly, chapter 9, "Functional Anatomy of Central Blockade in Obstetrics," is also interesting and thorough. In contrast, chapter 2, "Physiologic Changes of Pregnancy," has no figures, few tables, and excludes new information related to physiologic airway changes that occur during pregnancy. These changes are discussed in chapter 32, but without cross-reference. In addition, in chapter 3, "Fetal Physiology," key points are made in the summary that are not mentioned anywhere in the chapter.

Section 2 has seven chapters encompassing "Analgesia for Labor." This section includes excellent discussion about several newer techniques for labor analgesia, such as the combined spinal-epidural technique (chapter 11) and patient-controlled epidural analgesia (chapter 13), written by noted experts in these areas. However, an important chapter in this section, "Epidural Analgesia for Labor" (chapter 10), is a disappointment. There is limited information about drugs used for labor analgesia and no tables or figures with dosing guidelines. Instead, the chapter addresses the physiologic changes of pregnancy and complications such as postdural puncture headache, topics covered in other chapters. In fact, material presented in this chapter was also found in chapters 2, 11, 13, and 35. The author also states that many experts recommend a 750- to 1,000-ml intravenous fluid bolus before initiating conventional epidural analgesia. This statement is not referenced, and it is my opinion that most authorities would recommend not more than 500 ml intravenous fluid before labor epidural initiation.

Section 3 contains eight chapters about "Operative Anesthesia." Overall, the chapters in this section are well-written, interesting, and include content in emerging areas, such as "Anesthesia for Fetal Surgery" (chapter 22) and "Anesthesia for Assisted Reproductive Techniques" (chapter 23). It should be noted that chapter 17, "General Anesthesia for Cesarean Section," contains several questionable guidelines. For maintenance anesthesia, the author recommends "the volatile agent should be discontinued following delivery to prevent postpartum hemorrhage due to the relaxant effect of volatile agents." The author fails to mention that volatile anesthetics promote uterine relaxation only when administered in excess of 1 minimum alveolar concentration. Benzodiazepine administration after delivery is also recommended to prevent maternal awareness, which, according to the

author, remains a significant problem, particularly "during the period between induction and delivery of the infant, when 50% nitrous oxide is the only amnestic agent being used." Does the author recommend the use of volatile anesthetic agents at all for cesarean section? Certainly, there is no discussion about which agents or concentrations to use. It seems that the practices recommended are outdated because volatile anesthetics are commonly used during general anesthesia for cesarean section without maternal recall or uterine atony and without the need for routine benzodiazepine administration.

In section 4, 12 chapters highlight "Obstetric and Anesthetic Complications." A variety of topics are discussed, including vaginal birth after cesarean section (chapter 27), management of hemorrhage (chapters 29 and 30), airway-related problems (chapters 32 and 33), and complications of regional anesthesia (chapters 35 and 36). Chapter 34, "Allergic Reactions," has a nice discussion of latex allergy and the appropriate precautions that should be taken when treating allergic patients. It would have been interesting to include information about the high prevalence of uterine rupture that leads to morbidity and mortality in Africa in contrast to developed countries, within the chapters on hemorrhage.

Section 5, related to "Systemic Disease in the Pregnant Patient," has 13 chapters about a variety of topics. Strengths of this section include chapter 49, "Acquired Immunodeficiency Syndrome and Obstetric Anesthesia," written by experts from South Africa, where AIDS is a large problem. The chapter includes an appendix for quick reference about the management of needle-stick injury in health care workers while treating an AIDS-infected patient. It also contains a global overview of the AIDS epidemic and discussion of new therapeutic agents. I was a bit surprised that chapter 37, "The Obese Parturient," was written by Japanese authors (a problem more prevalent in the United States), but found the chapter to be thorough and well-written. One shortcoming in this section occurs in chapter 38, "Hypertensive Disorders and Renal Disease in Pregnancy and Labor." There is little information regarding the use of magnesium sulfate for preeclampsia and its interaction with anesthesia drugs.

Section 6, "Related Considerations," is perhaps one of the more interesting sections in the book. It includes chapters about bioethics (chapter 55) and patient satisfaction (chapter 56). There is also a good coverage of obstetric and nonobstetric nerve blocks (chapter 51) and a summary of newborn resuscitation (chapter 52). Several of these

topics are not found in other textbooks on obstetric anesthesia. Chapter 53, "Critical Care," should have included more information about cardiopulmonary resuscitation during pregnancy, but it concentrated on the diagnosis and treatment of preeclampsia and HELLP syndrome (hemolytic anemia, elevated liver enzymes, low platelets), topics already presented in chapter 38.

Finally, the appendix includes evidence-based practice guidelines for obstetric anesthesia reported by the American Society of Anesthesiologists, curriculum goals for resident doctors in training, and protocols for safe anesthesia administration. In keeping with the editor's intent to provide a global perspective in obstetric anesthesia, several pages in the appendix have been devoted to "Regional Anesthesia in the Third World: Is it an Option?" The authors state that regional anesthesia for surgical deliveries may be especially useful in countries where oxygen supplies are limited and that there is often a lack of education and services in obstetric anesthesia in developing countries.

The editors are to be applauded for their vision to unite obstetric anesthesiologists worldwide in the preparation of this textbook. Such endeavors are notably difficult and the editors and contributors are to be commended. Although the goal to have this textbook "find its way into clinical practice throughout the world" is noble, unfortunately, the \$145.00 cost may be prohibitive to anesthesiologists in developing countries where the information is most needed.

In summary, *Textbook of Obstetric Anesthesia* is well-written overall and contains a variety of useful information. Several topics are presented that are not found in other prominent obstetric anesthesia texts. There is an attempt to include cultural and regional differences in practice patterns and disease manifestation, although more of such information could have been added throughout the book. The biggest criticism is the lack of cohesiveness between the chapters; there is redundancy and inconsistency in the cross-referencing of information. Also, a number of chapters discuss complications to the exclusion of solutions and in the summary stem questions, expect the reader to prescribe treatment plans when management has not been presented in the text. Even with these shortcomings, it was a pleasure for me to read the text and it is a welcomed addition to my library.

Medge D. Owen, M.D., Wake Forest University Medical Center, Winston-Salem, North Carolina. mowen@wfubmc.edu

(Accepted for publication June 4, 2001.)