

**Pain in Infants, Children, and Adolescents.** By N. L. Schechter, C. B. Berde, M. Yaster. Baltimore, Williams & Wilkins, 1993. Pages: 691. Price: \$90.00.

Until recently, the treatment of pain in the pediatric population has been a relatively ignored aspect of medical practice. Aside from the obvious concern, significant adverse physiologic and biochemical disturbance may occur when pain is not adequately controlled. Such changes may increase morbidity and, possibly, mortality. With such concerns in mind, the publication of a textbook dealing entirely with the diverse aspects of pain in the pediatric population is a needed addition to the medical literature.

*Pain in Infants, Children, and Adolescents* is divided into three sections. The first deals with the theoretical aspects of pain. Included in this section are discussions on the anatomy of pain and nociception, psychologic aspects of pain perception, and cognitive developmental aspects of pain. Also included are chapters on pain assessment in infants and children. These chapters generally are well written and represent the collective work of many experts in the field. Chapter 2, on the neuroanatomy and physiology of pain, also discusses the biochemical and physiologic consequences of pain and its implications on postoperative outcome. The final two chapters of the first section address cultural differences in pain and ethical issues of pain management research. Overall, the first section is well written and presents many interesting ideas and information on the theoretical aspects of pediatric pain management. As a pediatric anesthesiologist who deals more with pharmacology and direct treatment of pain, I found these chapters informative and interesting.

The second section contains 18 chapters and deals with the various interventions available to treat pediatric pain. This section is divided into pharmacologic, psychologic, surgical, anesthetic, and nursing interventions. The chapters on pharmacologic interventions include a discussion of various agents (nonsteroidal antiinflammatory drugs, narcotics) as well as routes and modes of delivery (patient-controlled anesthesia). Specific agents covered (each in individual chapters) include nonsteroidal antiinflammatory drugs, narcotics, antidepressants, and local anesthetics. The chapter discussing techniques and routes of delivery is, unfortunately, rather brief. I would have liked to have seen more discussion on newer modes of delivery, including transdermal and transmucosal routes (including newer preparations such as butorphanol, which recently became available as a nasal spray).

The second section ends with chapters concerning anesthetic interventions and miscellaneous chapters grouped as "other interventions." The anesthetic interventions include discussion on central and peripheral nerve blockade. These chapters offer little new information for the practicing pediatric anesthesiologist and probably are better suited for those nonanesthesiologists who want general information concerning these techniques. The chapters in "other interventions" at the end of section 2 include interesting discussions of transcutaneous electrical nerve stimulation and acupuncture.

The final section of this book contains chapters dealing with specific pain situations, including postoperative, sickle cell disease, cancer, and procedure-related pain. The third section also discusses pain occurring in certain anatomic locations, including headache and facial, abdominal, and chest pain. The chapter on procedure-related pain contains well written sections on the pharmacology and pharmacokinetics of the various agents. However, there is little or no

information on recent clinical studies comparing these agents (*i.e.*, midazolam *vs.* fentanyl) or discussing alternative routes of delivery (*i.e.*, nasal or oral midazolam and ketamine). The latter information is more useful for the practical application of these agents.

Overall, this text is informative and a useful reference for those involved in pediatric pain management. Because of the clinical background, experience, and training of those involved in pediatric pain management, it is difficult to have one text for everyone. However, this book provides useful information regardless of the reader's background. I found the chapters dealing with nonanesthetic interventions most useful, whereas the chapters concerning anesthetic techniques and opioid pharmacology did not convey much new information. However, such chapters would be useful to nonanesthesiologists. Even with these minor problems, this text will serve as a valuable reference to all of us involved in pediatric pain management.

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**Anesthetic Complications.** By Kenneth Sugioka. Troy, Whitston, 1992. Pages: 227. Price: \$25.00 (hardback), \$10.00 (paperback).

During the last decade, the number of English language anesthesiology textbooks has veritably exploded. Many of the recent, multi-authored tomes seem better suited to researching individual topics than to cover-to-cover reading for appreciation of the subtleties of the field. Not so for *Anesthetic Complications*. This gem of a textbook does not purport to describe every imaginable complication of anesthesia. Rather, each chapter focuses on a specific aspect of perioperative care and provides insight into the mechanisms by which complications may develop, along with strategies for their prevention. Because it is the work of a single author, *Anesthetic Complications* is written in a uniform, readable style and does not suffer from the omissions and redundancies so frequently found in contemporary textbooks.

The first four chapters deal with equipment malfunction. Rather than dissecting each manufacturer's designs for potential failure modes, Sugioka provides a more general outlook. For example, the discussion of breathing circuits includes a drawing of a generic circle absorber system with numbered annotations indicating the sites of potential disconnections and misconnections. Complications associated with ventilators, spirometers, and scavenging systems are reviewed succinctly, and many references are provided if one desires to explore a topic in greater depth. Sources of errors in noninvasive blood pressure, pulse oximetry, and end-tidal carbon dioxide monitoring also are discussed in generic rather than device-specific terms; a paragraph or two suffices to discuss how the most common problems associated with each of these monitors may be avoided. The philosophy of the text is well summarized by the closing statement of the "Complications of Electrical and Monitoring Equipment" chapter: "Perhaps the greatest risk involved in using modern monitoring systems is that the anesthesiologist can become so enchanted with the

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'numbers' displayed by the instruments that he or she may neglect close observation of the patient at all times."

Since airway-related complications are a primary cause of anesthesia-related morbidity, it is appropriate that the chapter on "Complications of Obtaining and Maintaining an Airway" is the longest in the book. Sugioka has included some beautiful "pearls" for preoperative evaluation of the airway and for intubating the tracheas of patients in whom direct laryngoscopy proves difficult. Although he states that blind nasotracheal intubation "is as much an art as it is a science," Sugioka describes and illustrates in great detail a sequence of maneuvers that increase the probability of success with this technique.

The chapter on "Cardiorespiratory Complications of General Anesthesia" is relatively brief; however, the discussion of the risks associated with hypocarbia should be required reading for all anesthesiologists. Similarly, Sugioka's recommendation that hypotension resulting from relative anesthetic overdose be treated by ventilating with oxygen rather than by administration of vasopressors seems to be the product of years of experience in teaching residents to avoid overreacting to this common scenario.

I was particularly intrigued that Sugioka shares my preference for the supraclavicular approach to the brachial plexus. By using a short, fine needle, as illustrated in the chapter on "Complications of Regional, Epidural, and Caudal Anesthesia," he believes that the risk of significant pneumothorax can be minimized. In contrast, he states

that the interscalene approach "is fraught with dangerous complications" (e.g., subarachnoid injection "leading to total spinal anesthesia, permanent neurologic deficit, or cardiac arrest"). It also was refreshing to see a discussion of the "oft-neglected" use of hypobaric anesthetic solutions to reduce the risk of hemodynamic instability during subarachnoid block.

In summary, reading *Anesthetic Complications* is like having an experienced anesthesiologist at your side, describing some of the more common pitfalls that might be expected to occur during one's career; I must admit that more than a few of these were familiar from firsthand experience. In a sense, *Anesthetic Complications* provides a means of learning "the easy way," from somebody else's experience, rather than "the hard way," from your own misadventures. Perhaps this book should be required reading at several stages of one's career: At the beginning of training, to give an overview of common (and not so common) problems for which one should look during residency; near the end of residency (perhaps before written or oral board exams), to put one's experiences into perspective; and regularly thereafter, to refresh memories of how to avoid and manage rare and not-so-rare complications of anesthesia.

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## ERRATA

The title of the letter to the editor by Doenicke published in the March issue (Doenicke A: Atracurium is contraindicated in patients with a known allergy to drugs. *ANESTHESIOLOGY* 78:607, 1993) is in error and should instead read "Is Atracurium Contraindicated in Patients with a Known Allergy to Drugs?"

The article "Elucidation of Dose-Effect Relationships for Different Opiate Effects Using Alfentanil in the Spontaneously Ventilating Rat" by Yang, Weinger, and Negus, published in the July 1992 issue of *ANESTHESIOLOGY* (77:153-161, 1992), contained two errors. The units of EMG activity on the ordinate of figure 1 on page 156 should have been labelled in mV/10 rather than in  $\mu$ V. In figure 8 on page 158, the labels identifying the curves for "Catalepsy" and "Muscle Rigidity" should have been switched.