

BOOK REVIEWS

John J. Downes, M.D., Editor

Illustrated Manual of Regional Anesthesia. BY P. RAJ, H. NOLTE, AND M. STANTON-HICKS. New York, N. Y., Springer Verlag, 1988. Pages: 396. Price: \$580.

This is a "magnum opus" to illustrate the applied anatomy of regional anesthesia by three well-known and experienced practitioners of the art. It departs from standard texts, consisting of a robust vinyl plastic three-ring binder containing 62 sets of colored acetate overlays of the applied anatomy and regional anesthesia techniques for all of the common (and some uncommon) nerve blocks. Included in the package is a 96-page soft-back text that complements the artwork.

The strength and salient features of this presentation is the comprehensive spectrum of color acetates produced by the novel laser beam coloring technique, whereby the applied anatomy of the regions used in nerve blocks is portrayed as a series of overlaid acetates that can be removed sequentially to help understand the underlying anatomy.

With the explosion of medical knowledge and the inclusion of more and more subjects for the medical students' attention, the time spent in teaching gross anatomy has decreased significantly. The authors' stated goals were to compensate for this decreased anatomical knowledge of modern medical school graduates by providing them with a ready reference to both review their applied anatomy and understand its relevance to nerve block techniques.

To follow the theme, it is necessary to shift from text to acetates, which is quite feasible. The text is quite basic for the experienced professional, although we all benefit from reviewing basics from time to time, but the main attraction would, no doubt, be the colored acetates. If this fairly durable package were positioned in an appropriate spot in the nerve block clinic or operating room, it would pose a ready pictorial review just prior to attempting unfamiliar blocks. I wonder, however, if subject to multiperson use, how durable the ring binder arrangement for the acetate would prove. Only time will tell. Because it comes in a ring binder, the acetate overlays can be easily removed for a specific block, both for individual review and also would have an appeal for teachers discussing procedures, as the transparencies would lend themselves to use with an overhead projector, although in this circumstance, the text used to describe each acetate at its bottom margin is really quite tiny. It would seem to this reviewer an elegant addition (at the risk of increasing the cost) would be for an additional acetate containing the text labels. Such transparencies could, however, easily be customized in individual teaching sessions.

The only significant error to this reviewer is in figure VII 10-C where the intercostal neurovascular bundle is depicted as situated between the external and intercostal muscles, instead of deep to both intercostal muscle layers.

The quality and the clarity of the text is clear, but until the plan of the presentation is understood, it is a little confusing alternating between text and acetates. The artistic quality of the transparencies is excellent. The text is quite basic and would provide the beginner and intermittent user of regional anesthesia with most of the basic information required to practice this branch of anesthesiology. This tome is certainly relevant to the renaissance of regional anesthesia that we are enjoying at this time. The authors and especially the artist, Wolfgang Bost, should be congratulated on this novel approach to presenting a modern practitioner with the anatomical basics to do regional anesthesia. Alas, I feel, however, its expense will price it out of the range of many.

TERENCE MURPHY, M.D.
*Professor of Anesthesiology
Department of Anesthesiology, RN-10
University of Washington, School of Medicine
Seattle, Washington 98195*

Accidental Hypothermia and Near Drowning. EDITED BY R. C. G. GALLENDER HUET, TH. S. M. EUVERMAN, N. R. COAD, R. DEVAS, AND C. F. KARLICZEK. The Netherlands, Van Gorcum & Co., 1988. Pages: 122. Price: \$30.

Near drowning, especially when associated with hypothermia, is a topic that fascinates physicians, paramedical personnel and the lay public alike. What could be more astounding than a victim found without any vital signs, submerged in icy water, and deeply hypothermic who is eventually resuscitated and returned to normal function? Such a result requires immediate initiation of basic life support on the scene, prompt transport to a hospital, and precise action taken by a team of experts in the hospital setting. The anesthesiologist ordinarily becomes involved in the advanced resuscitation in the critical care unit and in the operating room when operative intervention for traumatic injuries or internal rewarming is indicated.

This book contains the proceedings of a Symposium on Accidental Deep Hypothermia and Near Drowning that was held on November 28, 1987 at the State University Hospital in Groningen, Netherlands. The book consists of 11 chapters that are essentially transcripts of each of the 11 lectures. These are followed by a panel discussion, two appendices, and selected references.

Chapter 1 is an excellent review of the development of treatment protocols for near drowning, beginning with the hanging of a victim by his feet in ancient Egypt, then blowing tobacco smoke into the rectum in 18th Century Amsterdam, through modern resuscitation. Chapter 2 describes initial treatment at the site of the accident. Conspicuously absent are recommendations for advanced cardiac life support and defibrillation in children. Chapter 3 is a description of the German rescue system that has improved the outcome of their near-drowning victims. This can serve as a model for future developments in other countries. Chapter 4 describes different types of hypothermia (immersion, immersion with multiple injuries, exposure, and exposure with multiple injuries) with regard to presentation, pathophysiology, and therapeutic principles. Chapter 5 begins with a brief description of the immersion process and the four potentially lethal stages that may occur. The signs and symptoms associated with progressive hypothermia are described. Practical suggestions based on pathophysiologic principles concerning the approach to the victim at the scene are provided. For example, I found it interesting that death due to acute cardiac ischemia supposedly can result if the victim is lifted vertically from the water. Chapter 6 describes the effect of accidental hypothermia on the various organs in contrast to deliberate hypothermia during anesthesia. Theories concerning the predisposition to ventricular fibrillation in the deeply hypothermic patient are discussed. Chapter 7 reviews the so called "after drop," the phenomena of the body temperature continuing to fall after rescue from cold water, and concludes that it is not responsible for postrescue death. Two suggested causes are overly aggressive superficial rewarming causing hypovolemic and cardiogenic shock, and myocardial ischemia leading to ventricular fibrillation as a result of the victim's struggle during rescue. Chapters

8, 9, and 10 review rewarming alternatives including passive rewarming, active external rewarming, and active internal rewarming by means of cardiopulmonary bypass or peritoneal dialysis. Chapter 11 briefly reviews the prevention and therapy of pneumonia, sepsis, and other secondary complications after near drowning. The author suggests that selective decontamination of the digestive tract with topically applied nonabsorbable antibiotics is the current standard of care, although this treatment has not gained widespread acceptance in the United States.* In their panel discussion, the authors discuss controversies raised in the preceding chapters and inconsistencies in the suggested therapeutic regimens. Appendix A presents statistics and the epidemiology of near drowning in the Netherlands. Appendix B summarizes the treatment of hypothermic near-drowning victims based on the sometimes varying treatment protocols in the preceding chapters. A selected reference list for all chapters at the end of the book includes up-to-date citations and classic articles from international sources.

This book is consistently easy to read, well written, and fairly concise, despite some repetition from one chapter to another. For example, "No one is dead until warm and dead" is repeated in several chapters. The text is written in terms that will be useful to both paramedical and medical personnel. Some important issues in treatment of the near drowning victim, however, are only briefly mentioned in this text. For example, dexamethasone is mentioned as routine therapy for aspiration pneumonia without any discussion despite this being quite controversial. Similarly, cryoprecipitate is recommended as accepted treatment with inadequate supporting evidence. Greater detail on the role of mechanical ventilation with PEEP and measures for controlling elevated intracranial pressure would have been appropriate.

As stated in their preface, the authors intended to provide an overview of accidental hypothermia and near drowning to stimulate discussion and research. They accomplished this goal. This book is a useful, concise, up-to-date review for clinicians responsible for the care of these complex patients, and provides much more information than found in any chapter in a standard textbook. As the editors acknowledge, however, this text is not meant to be comprehensive, and does not provide all of the relevant information. For this, the reader must still go to other sources, especially the references cited in this book. *Accidental Hypothermia and Near Drowning* is an excellent addition to the existing literature on this topic.

ROY E. SCHWARTZ, M.D.
Assistant Professor of Anesthesia and Pediatrics
St. Christopher's Hospital for Children
Philadelphia, Pennsylvania 19133

Risk and Outcome in Anesthesia. EDITED BY DAVID L. BROWN. Philadelphia, J.B. Lippincott, 1988. Pages: 420. Price: \$29.50.

David Brown has assembled specialized contributions from 27 anesthesiologists and presents them in two separate series: one on Perioperative Risk and one on Postoperative Outcome. The selections are prefaced with his own historical description of the growth of interest in anesthetic risk and of how the definition of anesthetic risk has changed over time. A final chapter (*Anesthesiology and Medicolegal Outcome* by Richard Ward and Margaret Lane) reviews some current

issues, particularly pressures from the legal profession to correlate medical practice with outcome. The material in this text is of conceptual value for the mature anesthesiologist, as well as the referring surgeon, internist, or pediatrician. Sooner or later, every anesthesiologist will want to understand this material.

In his introduction, Dr. Brown reviews the colorful history of debate over the risk of using anesthetic agents, a debate that began when unexpected deaths followed the introduction of inhalational anesthesia using ether and chloroform. His account of efforts to eliminate use of chloroform in favor of ether is charming and reminiscent of the great halothane debate. Dr. Brown, however, has a more concrete application for information generated by the dispute. He uses early data on the relative safety of ether and chloroform to trace the development of a framework for analysis of risk in anesthesia, and to present his own views. Dr. Brown believes that attempts to minimize perioperative risk and improve outcome will require three separate efforts from anesthesiologists: "First, efforts to educate physicians and the public about facts already known about anesthetic risks must continue. Second, a common data base and language for perioperative risk and outcome must be established so that communication is facilitated. Finally, anesthesiologists need to expand anesthetic care to include the postoperative period not only for critically ill patients, but for all patients."

The chapters that follow contain much useful information. The section on Perioperative Risk includes review studies in the subspecialty areas of cardiovascular and pulmonary disease, hematologic and immune function, psychiatric, endocrine and renal, and gastrointestinal function. The Perioperative Outcome portion includes chapters on anesthetic choice, critical care, hemodynamic monitoring, cardiothoracic anesthesia, neuroanesthesia, pediatric anesthesia, obstetric anesthesia, and acute and chronic pain therapy. Each chapter includes extensive references. The effort is made not simply to review studies of individual risk situations and their possible outcomes, but to construct and explain modern definitions of risk (and hence of possible negligence) in anesthesia. For instance, many risks, such as that of aspirating gastric contents (concisely discussed in the chapters on Pulmonary Disease, Pediatric, and Obstetric Anesthesia) are now so preventable that their very occurrence tends to be considered almost a sign of professional negligence. The chapter on Anesthetic Choice analyzes the difficulties of comparing the risks of general *versus* regional anesthesia, or research attempts to try determining an ideal anesthetic for any given procedure. Although analysis points to considerable difficulties in attempting such comparisons, the chapter is written both from a research point of view and also with the clinician very much in mind. Contextual limitations on good practice are well presented in the chapter on Critical Care: finite resources, changing perceptions in the public and in the medical profession regarding therapeutic interventions and shortages of nursing personnel, as well as the limitations of current predictive indices are cited. The discussion of Hemodynamic Monitoring is precise and lucid. A review of the current debate about when or whether to transfuse stresses the paucity of data balancing an "optimal" hemoglobin level *versus* the risks of transfusion. Anemia has not been linked to wound dehiscence, and inconsistencies in other data suggest anemia is associated with, rather than determinant of, postoperative infections. The authors cite data on risk of impairment of immunologic function by anesthetics, and offer limited support for a reduction in the incidence of major infections.

The final review chapter presents medicolegal cases from over 900 closed claims derived from the ongoing study of closed claims against anesthesiologists undertaken by the Committee on Professional Liability of the American Society of Anesthesiologists. We were disappointed that no distinction was made in this study as to the status of the responsible anesthetist (physician, dentist, nurse, or anesthesia associate). This chapter includes a review of the "Team Concept" and notes that

* Orłowski, J: *Pediatr Clin No Amer* 34:75-92, 1987.