BOOK REVIEWS

Edward Lowenstein, M.D., Editor

Principles and Practice of Pharmacology for Anesthetists. By T. N. Calvey, N. E. Williams. Blackwell Scientific Publications, 1982. Pages: 311. Price: $38.50.

The administration of drugs is an integral part of every anesthetic procedure, and anesthesiologists practice applied clinical pharmacology daily in the operating room. It is important, therefore, that anesthetists have a firm grasp of anesthetic pharmacology. Although there have not been a large number of new drugs introduced into anesthetic practice in the United States during the last 10–15 years, it is likely that we shall witness soon a rapid expansion in the use of new intravenous drugs, which will surely stimulate interest in anesthetic pharmacology and increase the importance of applied pharmacology in the examination curriculum.

This text is written by a pharmacologist, T. N. Calvey, and an anesthesiologist, N. E. Williams, both of the University of Liverpool, England. The aim of their book is, first, to provide a theoretic and basic background to, and second, to give a general description of, the use of drugs in anesthetic practice. It is a well-written, interesting book.

The first four chapters (102 pages) describe drug absorption, distribution and elimination, pharmacokinetics, drug action, and drug interaction. This provides a basic introduction to pharmacology and is the best part of the book. The chapter on pharmacokinetics is brief yet clear; however, the mathematic basis for the important equations used in the description of drug disposition is not discussed. Although some readers would like this chapter to be enlarged, I suspect that many nonacademic readers would prefer this more clinical approach. I particularly liked the section on pharmacokinetics in clinical practice, which discussed the calculation of infusion rates for continuous intravenous anesthesia. However, I did find the use of unconventional abbreviations to denote pharmacokinetic parameters confusing; in addition, the same symbol is used in the same chapter on consecutive pages to denote different parameters.

The remaining two-thirds of the book describes drugs used in anesthetic practice such as intravenous and inhalational anesthetic agents, local anesthetics, neuromuscular relaxants, and analgesic drugs and in addition, provides an overview of general therapeutics. Drugs that act on the autonomic nervous system, antiarrhythmic and hypotensive drugs, and endocrine drugs are reviewed here. The chapters in these sections of the book are well done but in some instances are too short and lack detail. The chapters on intravenous (14 pages) and inhalational (24 pages) agents, for example, are too brief and do not provide, in my view, sufficient depth for the practicing anesthesiologist. Similarly, the chapters relating to systematic pharmacology are also brief and sometimes provide no more than an outline of the pharmacology of certain drugs. The text is not referenced, but there are short lists at the end of each chapter of suggestions for further reading.

In summary, this is a good, well-written introductory text to drugs in anesthesia, but for both the resident in training and the clinical anesthesiologist, further reading is essential.

Margaret Wood, M.D.
Associate Professor of Anesthesiology
Assistant Professor of Pharmacology
Vanderbilt University
Nashville, Tennessee 37232

Fiberoptic Endoscopy in Anesthesia. By Vijayalakshmi Patil, Linda Stehling, Howard Zauder. Chicago, Yearbook Medical Publishers, 1983. Pages: 146. Price: $61.75.

This handsomely produced volume is a timely guide designed to fill the void in the anesthesiologists' working knowledge of fiberoptic endoscopes and techniques. As the authors point out in their introduction, for almost 20 years the subject has been addressed by case reports, review articles and scientific exhibits, but has not been covered in standard anesthesia texts and all too frequently is left out of the curricula of anesthesia training programs. The format combines a brief operating manual and introduction to the applied science of fiberoptics, with an atlas illustrating procedures and common sources of error that lead to failed technique.

Brief chapters dealing with the development of fiberoptic endoscopic equipment lead the student endoscopist into an abbreviated review of topical anesthesia and adjuvant techniques. The main strength of the book is found in chapters 3, 5, and 6, which illustrate and reproduce ancillary intubation equipment, the current proliferation of fiberoptic instruments, airway anatomy, endoscopic approaches, and practical aspects of the clinical application of endoscopic technique. Material used includes simple black and white illustrations and color plates of pathologic specimens, tracheal cross-sections demonstrating each technique, and selected views using the endoscopes themselves. It is both a strength and a failing that so many of the plates present the grainy texture of the view obtained with the fiberoptic laryngoscope and poorly lit shadows from the depths of the tracheal bronchial tree. The authors have selected appropriate plates that portray all of the problems of visual confrontation with the airway at close quarters, rather than to select the highest quality photographs, as generally is done.

The text has two major deficiencies: it presents us examples of the equipment produced by only two of the several endoscope manufacturers (rigid fiberoptic endoscopes like the Stortz are not discussed and the "malleable" intubating scope is shown in only one plate); it is parochial in nature because its referencing is sketchy (14 in all, and the index consists of only four plates) and it represents only the total experience of the authors. These shortcomings easily could be overcome in later editions without sacrificing the brevity and relevance of the manual–atlas format. The authors have not intended the book as a shopper's guide for endoscopic equipment; this is appropriate because of their focus upon their own clinical experience and equipment. The price is high, but the information is so timely that this book is a must for the library of every medium-sized or larger department of anesthesia and quickly could become the introductory text in residency training. As an occasional teacher of endoscopic technique, I can recommend this monograph to everyone who has missed this key part of anesthesia training and wishes to master at least fiberoptic intubation in his day-to-day practice.

Charles B. Watson, M.D.
Associate Professor of Anesthesiology
Critical Care Medicine
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27514