BOOK REVIEWS

David E. Longnecker, M.D., Editor

Anaphylactic Reactions in Anaesthesia and Intensive Care. BY JERROLD M. LEVY. Boston, Butterworths, 1986. Pages: 173. Price: $22.95.

With the increase in both the occurrence of and the interest in anaphylactoid reactions to anesthetic drugs, there has been an identifiable need for a short monograph to summarize the current literature for the practicing or trainee anesthesiologist. This book fills the void admirably.

The first part describes the mechanisms that may produce the clinical syndrome of anaphylaxis in a clear and concise manner, with aggregate anaphylaxis the only significant omission. Part II deals with anesthetic aspects of anaphylaxis. The discussion is sound, concise, and practical, and is concluded by a number of illustrative cases. The anesthesiologist who reads this book will gain a sound understanding of both the perspective and the management of this problem.

The book has a number of deficiencies. Some of the references are not cited accurately and are misleading. For example, Watkins is cited as reporting seven cases of immediate hypersensitivity to etomidate, of which four had evidence of IgE antibodies. Watkins, in fact, recommends etomidate in high-risk patient, and describes seven patients with minor reactions during anesthesia, in which etomidate or relaxants may have been responsible and there is no evidence of an immune basis. The method of citing references using first author only with "*et al.*" appearing apparently at random is most irritating. Chapter II is a general account of ICU ventilator management and the management of Respiratory Distress Syndrome, and would be better omitted.

The book's greatest strength is also its greatest weakness. The simple didactic approach taken will be of value to the practicing anesthesiologist, as it avoids the bias so often displayed in the writings of researchers in this field. To such a biased worker, it is sad that Dr. Levy did not dissect some of the controversial aspects of this topic.

Anaphylactic reactions to anesthetic drugs are rare. When they occur, it is often difficult to gather relevant information on the topic, and Dr. Levy has collected this information in what is the most authoritative American review of the topic, making the book a valuable departmental resource.

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Epidemiology in Anesthesia: The Techniques of Epidemiology Applied to Anesthetic Practice. EDITED BY JOHN N. LUNN. London, Edward Arnold (Publishers), 1986. Pages: 174.

Clinical epidemiology is both a source and solution for controversy in medical practice. The dilemmas of dogma and dissent that pervade current anesthetic management derive mysteriously from the morass of clinical literature much the way methane gas rises from the muck of a Mississippi marsh. Wading through this swamp of studies to distill doctrine from debris is necessary to understand the nature and origin of what we do each day. Dr. Lunn offers a helping hand in this difficult task through this brief and well-referenced survey of epidemiologic techniques applied to the study of anesthetic-related issues.

The book progresses from a history of early inquiries into anesthetic morbidity-mortality, through a definition of epidemiologic terms and techniques, to analyses of the data addressing several controversies in clinical anesthesiology. The chapters entitled "Epidemiological Strategies in Research in Anaesthesia," "Mortality, Morbidity and Risk Studies in Anaesthesia," "The Halothane-Liver Controversy," and "The Pollution Controversy" are particularly informative. The bibliographies of these chapters are current and extensive, and data are offered *via* tables and figures that enhance the overall presentation. The authors provide ample citations of good and bad studies alike, and describe for each the discrepancies between stated conclusions and those, if any, the data support. I found this material to be very helpful in teaching residents.

The chapter written by Dr. Lunn is a chatty but very good summary of the origin and function of anesthetic records. Neophyte anesthesiologists would benefit from reading these few pages early in their training. The chapter contributed by Dr. Rawlins is mistitled "Strategies for the Development of New Anesthetic Drugs." It is actually a thorough presentation of techniques for postmarketing evaluation of the efficacy and safety of new drugs. Unfortunately, the remaining few chapters trail off into a miscellany of topics made unnecessarily oblique to the book's stated purpose (*i.e.*, is a discussion of the advantages of "light pens" *versus* "bar code readers" pertinent to an epidemiology text?).

Generally, this is a well-written, thoroughly referenced, and interesting presentation of a potentially daunting subject. It is enjoyable reading, and I recommend it as a useful resource to both academic and nonacademic anesthesiologists.

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Cardiopulmonary Bypass. EDITED BY KENNETH M. TAYLOR. Baltimore, Williams and Wilkins, 1986. Pages: 439.

This text is the latest in the series of books on extracorporeal circulation which have appeared over the nearly 35-yr history of human perfusion technology. It consists of 21 chapters written by British or American authors detailing historical aspects, monitoring, cardiac anesthesia for adults and children, perfusion and oxygenation, types of oxygenators, counterpulsation, priming fluids, anticoagulation, effects of perfusion on blood and organ systems, embolization, and safety considerations. The goals of the preface, which are to review current thinking, spectrum of present practice, and future developments, are generally accomplished. Although perfusion physiology is well discussed, the mechanical aspects are less well described.

Chapters on pediatric perfusion techniques, bubble oxygenation compared with membrane oxygenation, priming solutions, filtration, blood cell trauma, blood conservation (hemofilters and autotransfusion systems), anticoagulation, and myocardial preservation are excellent. In all of the chapters, the inclusion of historical milestones in the development of the pump oxygenator enable the reader to appreciate the present capabilities.

Although the chapter on cannulation is good, the discussion of the management of poor venous return, aortic dissection during bypass, and malposition of cannulae is incomplete. A very complete discussion of air embolism is included in the final chapter on safety, but the chapter on monitoring fails to detail such monitors of the extracorporeal circuit as reservoir level indicators and anti-gas embolism devices, as well as circuit pressure and arterial or venous blood temperatures. In the chapter on counterpulsation equipment, available techniques are thorougly reviewed, but their pitfalls and practical management are omitted.

There is also considerable redundancy between the two chapters on extracorporeal membrane oxygenation, one describing acute, and the