

## Book Reviews

Burnell R. Brown Jr, M.D., Ph.D., Editor

**Malignant Hyperthermia.** In: *International Anesthesiology Clinics* 17. EDITED BY BEVERLY A. BRITT. Boston, Little Brown Publishers, 1979. Pages: 168. Price \$13.50

The editor of this volume has been involved with the treatment and prevention of malignant hyperthermia (MH) for the past decade. Her efforts have been a major force in decreasing the 70 per cent mortality rate seen prior to 1970 to the rate of 28 per cent reported in 1976. Her experience with and understanding of this syndrome is evident in the breadth of contributions found in this book. Each chapter is well written. The chapters progress from a presentation of an acute crisis through pathophysiology and genetics to the preoperative diagnosis and preparation of the MH patient.

This volume will be of value to the practicing physician as well as the muscle researcher interested in a complete and concise introduction to the syndrome. Drs. Denborough and Harrison review the human and porcine syndromes, respectively. Although some overlap occurs between chapters, the different emphasis and points of disagreement, particularly with respect to pathophysiology, emphasize our current state of understanding of malignant hyperthermia. The chapter by Dr. Britt probably is the first complete presentation of the multiple laboratory tests available for preanesthetic diagnosis of the MH susceptible patient. She describes the caffeine/halothane contracture tests which is presently the most accepted means of laboratory diagnosis. Although it is not stated in the text, the data presented suggests that considerable overlap occurs in the caffeine contracture test of normal, rigid MH, and non-rigid MH patients. It is not pointed out that these laboratory tests do not always give a definitive yes or no answer; it often falls to the clinician who has the complete "picture" of the patient to decide whether they are MH susceptible or not. The book concludes with two valuable chapters dealing with the clinical care of the MH patient. Dr. Relton enumerates the preoperative and intraoperative care of the MH patient undergoing elective surgery and anesthesia. In particular, he describes a protocol for the preoperative administration of oral dantrolene in the prevention of MH. Dr. Ryan completes this book with a protocol for handling the acute MH practice.

This book is a valuable guide for every anesthesiologist. It gives a complete description of the pathophysiology of this fascinating metabolic syndrome and presents a rational approach to the pre- and intraoperative care of the MH patient.

THOMAS J. J. BLANCK, M.D., PH.D.  
*Assistant Professor, Anesthesiology*  
*University of Arizona Health Sciences Center*  
*Tucson, Arizona 85724*

**Essential Noninvasive Monitoring in Anesthesia.** EDITED BY J. S. GRAVENSTEIN, RONALD S. NEWBOWER, ALLEN K. REAM AND N. TY SMITH. New York, Grune and Stratton Publishing Company, 1980. Pages: 323. Price: \$14.50.

This book is a comprehensive, authoritative, up-to-date text of noninvasive monitoring techniques. In addition to the editors, there is an impressive list of principal contributors and participants. The

book is organized into four major sections: Noninvasive Blood Pressure Measurements, Electrocardiography in the Operating Room, Cutaneous Tissue and Respiratory Gas Measurements, and Failure to Monitor. Each section contains a summary which presents an overview of all topics discussed within the section. With the overview summaries by the editors, many of the significant points of the individual chapters are drawn together.

Section One, Noninvasive Blood Pressure Measurements, presents an excellent review and supportive data for current "state-of-the-art" methodologies measuring blood pressure noninvasively. Current techniques of oscillometric, doppler, auscultation, and tonometry are discussed and compared. In addition to techniques, a short discussion of the significance of the measurement of systolic, diastolic, mean or pulse pressures, and data validation is also presented. In my opinion, this section is one of the most complete and comprehensive of the book. This section is well-written and the amount of material easily understood.

In Section Two, Electrocardiography in the Operating Room, such current topics as the status of the operating room EKG monitoring, electrical noise and signals, analytical techniques in EKG measurements, arrhythmia detection and display are presented within the respective chapters. This section is also well-written and contains significant information about the problems and techniques that arise with EKG monitoring. A brief look at potential future techniques of data presentation and interpretation is also included.

In Section Three, Cutaneous Tissue and Respiratory Measurements, theory, design and application of cutaneous gas measurements, chemical sensors (ISFETS), mass spectroscopy, new techniques of monitoring of oxygen transport, and acid based status are presented. Although current "state-of-the-art" of many new noninvasive techniques is discussed, not all chapters are complete. Many of the authors present only the conclusions of their research and fail to summarize the work of others. I feel that this section could have been strengthened considerably if a format of review articles which summarize other investigations and other results had been followed.

Section Four, Failure to Monitor, emphasizes the points of required minimal monitoring, failures resulting from human and equipment factors, and the efficacy of anesthetic monitoring from a legal standpoint. This section is enjoyable reading and particularly emphasizes such points that are commonly discussed in the design of new equipment, such as whether failures result from human or equipment factors.

Even with the deficiencies discussed, this book is highly recommended for all people interested in "state-of-the-art" noninvasive monitoring. The direction that current research, advanced biotechnologies and applications of this technology to noninvasive monitoring should be of interest to all anesthesiologists.

In general, the book is easy to read and understand. It does not require an engineering or scientific background to appreciate the material contained. However, some experience with monitoring and scientific knowledge assists the reader in appreciating the material contained. Several chapters give insight and comparative information about various techniques that are commercially available. Each chapter has sufficient references for the interested individual to pursue a more complete background and obtain