

BOOK REVIEWS

Edward Lowenstein, M.D., Editor

Exploring the Heart: Discoveries in Heart Disease and High Blood Pressure. BY JULIUS COMROE. New York, W. W. Norton and Company, 1984. Pages: 348. Price: \$18.95.

During the summer of 1971, Julius Comroe and Robert Dripps wondered whether they could find objective data on how critical medical discoveries came about and what speeded them or held them up. (At that time, our government favored the funding of goal-directed, contract-supported research.) They hoped to predict how important discoveries were likely to be made in the future. Choosing to study the 10 most important clinical advances in cardiovascular and pulmonary medicine and surgery from 1945 to 1975 and consulting with hundreds of specialists, they selected 663 key articles from 6000 reviewed, and showed that 42% of all advances essential to later clinical benefit were the result of basic undirected research that had no relation to the disease it helped prevent, diagnose, or treat. Dr. Dripps died in 1973, but Dr. Comroe continued the project for 4 more years and retained his interest in the subject until his death in 1984.

"Exploring the Heart" is his final story about how discoveries in medicine and surgery actually occur. It deals only with the development of knowledge essential for modern advances in the diagnosis and treatment of diseases of the heart and blood vessels. The book begins with the story of how and when John Gibbon came to build the heart-lung machine, and continues with the discoveries needed for accurate preoperative diagnosis of cardiovascular disease and the developments in antisepsis, anesthesia, elective cardiac arrest, and surgical techniques that were essential for successful cardiovascular operations. The story of the conquest of essential hypertension is told from the time that Hales first made precise measurements of blood pressure in 1707 until the present day.

The book was written for the lay reader and "those physicians who understand lay language and are bilingual." Consequently, it is humorous and easily read. It is a fascinating book and should be read by every student of medicine, clinician, and scientific investigator, for it not only leaves the reader with an increased awareness of how discoveries are made, but also points out mistakes and missed opportunities to help us avoid them in the future. Most of all, it leaves us with a responsibility to make the public aware of the roads to medical discovery.

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The Electroencephalogram in Anesthesia. BY I. PICHLMAYR, U. LIPS, AND H. KUNKEL. New York, Springer Verlag, 1984. Pages: 212. Price: \$38.50.

This book is based on the authors' vast experience (1500 cases) in monitoring electroencephalogram (EEG) power spectra. It largely represents the biases of a single group experienced in monitoring neurophysiologic function. The English language version has been published just as technological advancements have created a resurgence of interest in monitoring the EEG during anesthesia.

Some of the material published, though not new, has been unavailable. The discussions of preoperative EEG patterns in the normal population and variants in the elderly typify such information. This material

provides valuable perspectives on the baseline EEG patterns of patients who are likely to be monitored intraoperatively. Similarly, the discussion of the EEG effects of over 35 anesthetic agents, adjuvants, and combinations provides an atlas of power spectra unduplicated in any single volume in the literature.

Unfortunately, the material is presented in a staccato style similar to an outline. The reader is presented with a myriad of examples and patterns to memorize. One would have expected more insight than is evident in the text from an experience as large as that of the authors. The material on the technical aspects of EEG recording is so sparse that it is inadequate for those unfamiliar with the complexities of intraoperative EEG recording. Finally, precise description of the measurement conditions (measured anesthetic concentration, quantitative analysis of power spectra, presence of surgical stimulation, etc.) is missing.

This is a useful reference for the anesthesiologist interested in intraoperative monitoring.

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Obstetric Analgesia and Anaesthesia. BY J. SELWYN CRAWFORD. New York, Churchill Livingstone, 1985. Pages: 169. Price: 16.00.

During the past decade, while a large number of obstetric anesthesia text books have been written, the need for a comprehensive, practical overview has been evident. This paperback book, now in its second edition, certainly fills the need. It is a successful attempt to cover the various basic anesthesia problems, techniques, and complications, and their solutions in obstetric patients. The succinct discussion of most of these important obstetric problems provides valuable practical information.

The highlight of the book is Chapter 4, entitled Regurgitation and Aspiration: Causes and Management. The author approaches a difficult subject (failure to intubate) in a comprehensive manner and presents many beneficial, practical tips.

In contrast, the chapter on obstetric and nonobstetric complications affecting anesthetic practice is inadequate. For example, in preeclamptic toxemic patients, the author advises epidural block primarily to provide analgesia and also recommends the use of continuous infusion of hydralazine to regulate the blood pressure. This method is controversial. Use of colloid in severely toxemic patients is an acceptable technique in the United States today. However, the author does not mention this. Information regarding invasive monitoring is also lacking. The author states that spinal anesthesia is not a good choice for Cesarean sections in cases of diabetic parturients. However, there is recent evidence of optimal neonatal outcome in such cases after properly performed spinal anesthesia.

Despite these minor drawbacks, this book has obvious strengths. It is well organized, clearly written, and amply provided with practical tips describing how to avoid complications and treat them if they do occur. The scope, clarity, and relative brevity of this book will appeal to medical students and also anesthesiologists and anesthesiologists caring for obstetric patients.

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