

Book Reviews

B. Raymond Fink, M.D., Editor

Developmental and Physiological Correlates of Cardiac Muscle.

EDITED BY MELVYN LIEBERMAN AND TOYOMI SANO. New York, Raven Press, 1976. Pages: 335. Price: \$25.00.

This book represents the outcome of a symposium held in Tokyo, sponsored cooperatively by the United States and Japan. The subject of the symposium was heart cells and their physiologic specializations. Contributions were made by a multidisciplinary group of scientists, mostly from the United States and Japan, but including a solid representation from Western Europe.

The subject matter proceeds logically, beginning with anatomic data from embryonic and fetal hearts, and heart cells in culture. This is followed by several articles focussed on electrophysiologic considerations, particularly membrane permeabilities of embryonic and cultured heart cells. Finally, certain physiologic and pharmacologic characteristics of these hearts are considered.

The book constitutes an up-to-date summary of the status of the field, and includes contributions from many of the most prominent scientists in it. The illustrations are reproduced clearly, and the printers have done a superb job. A particularly useful feature is a recapitulation of the discussions that took place after each paper was delivered. The editors have masterfully summarized the essence of the comments, and have included verbatim statements where appropriate. The book contains exciting reading for those interested in developmental aspects of cardiac muscle.

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Anesthesia and the Kidney. By R. D. BASTRON AND S. DEUTSCH. New York, Grune and Stratton, 1976. Pages: 98. Price: \$11.00.

This book, the second volume of the Scientific Basis of Clinical Anesthesia series, is a well-written monograph that concisely summarizes present knowledge regarding the effects of anesthesia on the kidney. The authors begin with a review of renal physiology and an interpretation of clinical renal function tests. Following this, they discuss the renal effects of anesthesia, anesthetic nephrotoxicity, acute renal failure, and anesthesia for the anephric patient. These chapters are easily understood, offering a reasonable blend of scientific data and their clinical interpretation. References are abundant and up-to-date. The final chapter, entitled "Anesthesia, Operation and Diuretics," is disappointing. Half of the ten pages is devoted to structural formulas, including a full page each to the clinically obsolete xanthine and mercurial compounds, whereas the controversy regarding the use of diuretics for the prevention and treatment of renal failure in surgical patients is barely accorded a few words. Otherwise, the 90-120 minutes required to read this book is well worth the time spent. I do not believe most practitioners would be willing to spend \$11 for such a slim volume, but it should be a valuable addition to teaching institution libraries.

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Cerebrovascular Diseases: Tenth Princeton Conference. EDITED BY PERITZ SCHEINBERG. New York, Raven Press, 1976. Pages: 388. Price: \$20.00.

Biennially, a group of clinical and basic investigators gathers in Princeton to review recent developments in cerebrovascular research. The transactions of the 10th Conference are presented in this well-illustrated volume. The editor states that the major thrust of the Conference was directed toward problems in atherogenesis and the possible deleterious role of neurotransmitters released into ischemic brain tissue. Each section is preceded by an introductory review paper, which is complemented by a number of contributions by individuals engaged in various circumscribed research areas.

The neurotransmitter chapters detail the many changes that occur with regard to monoamine neurotransmitter release and subsequent uptake in ischemic brain. The role of these released neurotransmitters in the evolution of the acute cerebral infarct is controversial. Proposed mechanisms for a possibly destructive role include alterations in cerebral function and metabolism and local vasoconstriction. While there is general agreement that alterations in brain monoamine levels occur with stroke, it is also quite clear that we do not understand the implications of these changes. The reader is left with a very limited overview of the problem of neurotransmitters and stroke. This probably reflects the paucity of information in this area. The focus on neurotransmitters complements discussions at the 9th Conference, which centered on blood flow and energy metabolism changes accompanying strokes. Read without prior review of the preceding conference, the contributions in the current book present a very restricted view of stroke research.

Two clinically oriented chapters provide a pithy update of what's new in transient ischemic cerebrovascular disease. Barnett presents an excellent review of the causes of these attacks, while Toole, summarizing the literature, finds that about 30 per cent of patients with transient ischemic attacks of recent onset will suffer a stroke and contends that, despite two decades of experience with carotid-artery surgery, its efficacy remains unproven.

A large portion of the remaining text is a potpourri of papers dealing with general processes that are associated with cerebrovascular diseases. As such, there is very little specificity with regard to cerebrovascular disease. Chapters on atherogenesis and the aging process are quite general in nature, and could be found in almost any textbook dealing with the problems of man's mortality. A major part of the section on neurotransmitters is really malpositioned, in the sense that it deals with a hypothetical role of neurotransmitters in central nervous system regeneration. Another chapter, on the epidemiology of cerebrovascular disease, is not of special interest to anesthesiologists.

The more general reader will not find this book to be useful as an introduction to cerebrovascular disorders. However, he will be pleased to learn that atherosclerotic plaques can regress and that the central nervous system can regenerate, but unhappy to find that despite all this, "individual members of a species eventually accumulate physiologic decrements that lead to an increase in their likelihood of dying." As the Princeton Conference is organized along the lines of a closed workshop, readers with an established interest in cerebrovascular disease will use the current volume as a souvenir program from a meeting they could not attend. As such, the book will be valuable to them, and

they will especially enjoy the participant interchanges that follow each section, area and consideration.

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Pain—from Symptom to Treatment. By MANUEL M. VILLAVARDE AND C. WRIGHT MACMILLAN. New York, Van Nostrand Reinhold, 1977. Pages: 337. Price: \$22.50.

The authors of this book have set themselves an almost impossible goal: provide a guide to the management of pain, given a specific anatomic locus (*e.g.*, head or abdomen). From the perspective of a patient suffering agonizing pain this may be laudable. From the physician's point of view, conversely, this approach largely ignores the underlying disease process. In this book, pain of all sorts is treated almost indiscriminately with analgesics or, rarely, with topical anesthetics. Nerve blocks, physical methods, psychological management—not to mention acupuncture—are, if not ignored, dismissed.

The book's introductory quarter superficially describes the many drugs used to combat pain. Much valuable page space is taken up by trivial details regarding dosage forms and preparations. Being more familiar with them, I glanced at the section dealing with Local Anesthetics. There I find that 20 mg cocaine may cause "serious toxic symptoms"; that procaine is "the most widely used local anesthetic"; and that ". . . lidocaine should be used when epinephrine is contraindicated." The one brief paragraph listing lidocaine's pharmacology is next to useless. Newer local anesthetics such as mepivacaine and bupivacaine are not even mentioned. I suspect that a good pharmacology text will provide more authoritative and more complete information without undue intellectual stress on the reader.

The index lists key words only and evinces little attempt at cross-referencing; the writing style is heavy and dogmatic, often reading as if translated. Flowery words abound, hard facts are few. *Pain* might perhaps be useful to paramedics in isolated regions where medical assistance is not readily available, but anesthesiologists will find little return for the purchase price.

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Anaesthesia and Recovery Room Techniques. Second edition. By J. WACHSTEIN. Baltimore, Williams and Wilkins, 1976. Pages: 150. Price: \$7.25 (paperback).

The author presents a technical reference manual that is adaptable to most hospital settings, and gives the student or beginner an overview of the procedures involved in patient care prior to operation and through the postoperative phase.

The book is heavy with descriptions of the clinical apparatus and the specific equipment needed in various settings. It includes a complete chapter on the "Preparation of the Anaesthetic Room," but the writer's approach is technical and deals superficially with anesthetic agents and drugs. She does not mention nursing assessment or the value of an in-depth knowledge of the pharmacologic properties of anesthetic agents and drugs. In sum, the text is a truly excellent "how to" manual—how to position a patient on the operating room table, how to support an airway, etc.—but says little about "why."

The book is approached from a general application standpoint

and is adequate to the realm of performance of certain aspects of patient care.

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Respiratory Diseases. Second edition. By J. CROFTON AND A. DOUGLAS. Oxford, Blackwell Scientific Publications, 1975. Pages: 776. Price: \$65.00.

This book encompasses a large volume of information relating to many commonly occurring respiratory diseases, as well as many of the more exotic entities seen only rarely in clinical practice.

The authors begin in traditional fashion, with a brief description of structure and function of the lung. This is followed by a short but concise chapter on the epidemiology, which provides a useful perspective for consideration of the various conditions subsequently described. Prefacing the discussions of individual diseases are four appropriate chapters outlining the clinical manifestations of pulmonary disease, diagnostic methods, principles of chemotherapy, and immunologic aspects of pulmonary disease. The main body of the work, pertaining to individual diseases, primarily emphasizes etiology, epidemiology, pathology, clinical presentation, and outpatient chemotherapy. Discussions of pharmacology, pulmonary physiology, and treatment of physiologic abnormalities have largely been avoided.

Notably absent are attempts to deal with pathologic pulmonary conditions resulting from chest trauma, "shock," surgical procedures, cardio pulmonary bypass, and a host of other insults that frequently lead to the clinical picture commonly referred to as "adult respiratory distress syndrome." Although full consideration of these problems is undoubtedly beyond the scope of this publication and best reserved for a book on "acute respiratory care," their virtual absence from a textbook of respiratory diseases is perhaps misleading. The prevalence of these problems among hospitalized patients probably would justify their inclusion, in abbreviated form, within a textbook of this nature, with appropriate references for those particularly interested in the subject. Another neglected topic is that of pulmonary edema; although this clinical problem used to fall primarily in the jurisdiction of the cardiologists, more recent knowledge of the development of pulmonary edema following localized pulmonary vascular injury suggests this as an area of increasing concern by the respiratory physician. It might, therefore, have been appropriately included in a more detailed fashion than the half page devoted to its consideration, which is extremely confusing to read at best.

The material presented represents a distillation of the authors' knowledge gained through years of clinical practice, teaching, and an "inevitably limited study of the literature." The bibliography is therefore not exhaustive, and the authors have frequently relied upon their own extensive clinical experience in choosing modalities of therapy. As such, the book presents a sound basis for methods of good clinical practice generally accepted in both the United Kingdom and the United States. (Occasional differences in the selections of therapeutic agents primarily reflect differences of availability in the two countries.) The reader, however, may frequently be required to consult other reference sources when researching a particular area.

As the result of good organization and a pleasing style of presentation, the book is readily usable. It has been directed by the authors principally at the "postgraduate" level, and should provide a useful base of information for those particularly interested in pulmonary disease when complemented by other