

## Book Reviews

**Aging: Volume 2, Genesis and Treatment of Psychologic Disorders in the Elderly.** EDITED BY S. GERSHON AND A. RASKIN. New York, Raven Press, 1975. Pages: 413. Price: \$28.50.

This excellent collection of monographs on the behavioral disorders of aging covers a spectrum of topics ranging from experimental psychology and investigative neuropathology to the clinical pharmacology of agents used to treat the psychopathology of later life. The contributors are all authorities in their fields, and most have succeeded in presenting their topics in a manner both interesting and useful to the clinician as well as to the investigator in gerontology. Controversial areas such as the use of hyperbaric oxygen for dementia, the efficacy of the Rumanian drug Gerovital-H3 in the treatment of "aging," and the relationships between aging and intelligence are reviewed clearly and comprehensively. Some widely held concepts of the role of cerebrovascular disease in the etiology of dementia are challenged, stimulating the reader to take a more sophisticated (and optimistic) approach to the group of disorders subsumed under "chronic organic brain syndromes."

Of special interest to the anesthesiologist are a discussion of interesting experimental findings suggesting that the ergot alkaloids may protect brain tissue from adverse effects of acute anoxia, and several informative chapters on the psychopharmacologic agents so commonly prescribed for the elderly.

Any clinician involved in the care of the elderly (and who, except for the pediatrician, is not?) will find much of interest and value in this well-conceived and well-written volume.

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**Essentials of Respiratory Disease.** second edition. By R. B. COLE. Philadelphia and Toronto, J. B. Lippincott, 1975. Pages: 297. Price: \$16.00.

Today's anesthesiologist is not only responsible for the peri- and intraoperative management of respiratory problems, but may also supervise the intensive care of patients with respiratory failure. In addition, in many community hospitals it is the anesthesiologist who is consulted in the management of acute severe respiratory disease. How well equipped is the anesthesiologist to handle these problems? Do residency training programs provide the basic science and clinical experience to enable anesthesiologists to meet these responsibilities with competence? In general, the answer

is "no." Therefore, will this book contribute to the education of the anesthesiologist in training?

Dr. Cole's book is written for the senior medical student and the resident. The author's aims were to bring together techniques of bedside diagnosis, concepts of pulmonary physiology, and the clinical features of the commoner respiratory diseases. The book is organized along traditional lines, with sections on clinical methods, pulmonary physiology, and pulmonary disease.

The section on clinical methods includes chapters on symptoms and signs of pulmonary disease, cardiovascular aspects of pulmonary disease, and roentgenographic examination of the chest. In the best tradition of British medicine, the descriptions of the clinical features of respiratory disease are good.

The chapters in the section on pulmonary physiology are concepts of pulmonary physiology, pulmonary function tests, pulmonary circulation and disordered function in disease. Most of the chapter on concepts of pulmonary physiology is given to gas exchange, with only rudimentary descriptions of control of breathing, respiratory muscles, and mechanical properties of the respiratory system. Indeed, these descriptions are so rudimentary that they result in distortion of fact, e.g., stimulation of the respiratory center by increased arterial hydrogen ion concentration in metabolic acidosis. Is the author implying that the respiratory center is the receptor responsible for the increase in ventilation in metabolic acidosis? The effects of mechanical abnormalities of the respiratory system on the chemical regulation of ventilation and of the consequent impairment of the ventilatory compensation for ventilation/blood maldistribution are not discussed. Airway resistance is discussed in both the chapter on physiology and the chapter on pulmonary function tests, and in the latter there is also a section on airway closure, but there is no reference to why it is difficult to detect peripheral airways disease, and therefore these sections do not become complementary. The description of the methods of measuring ventilation/blood flow maldistribution would be enhanced by a few basic equations.

The scope of the section on pulmonary disease is admirable, and it contains much useful information. Although each chapter contains a section on functional investigation, I believe that the author's aim of bringing together concepts of physiology and pulmonary disease would be better served by a more adequate description of the functional abnormalities of each disease. The description of treatment, particularly drug treatment, is often inadequate. For example, in the chapter on asthma the author recommends that aminophylline be given at a rate not exceeding 2 ml/min to a total of 500 mg in 20 ml. Depending on the patient's body weight and physical status, this might be the correct loading dose. However, since aminophylline is such an important drug in the

management of asthma, I believe its administration deserves a more adequate description than can be given in four lines.

This book thus provides an overview of the commoner respiratory problems, but I am unable to recommend it enthusiastically because of errors of commission and omission in physiology and management of respiratory disease. I do not believe it fulfills the author's aims. This is a disappointment because there is need for a comprehensive book on respiratory disease with sound physiology and biochemistry, together with current concepts of management.

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Local Anesthetics: Mechanisms of Action and Clinical Use. BY B. G. COVINO AND H. G. VASSALLO. New York, Grune and Stratton, 1975. Pages: 173. Price: \$14.00.

This is the first monograph to appear in a new series, *The Scientific Basis of Clinical Anesthesia*. Other series of monographs devoted to anesthesiology are already available. Why, then, is yet another being introduced?

The present book is different, refreshingly so. In part because it is written by two individuals, not by a committee or consortium. There are continuity and direction in the way material is presented. There is consistency of style. There is completeness. There is no repetition, or when there is there is a reason for it. In fact, this is such a fine book that one finds one's self checking during the reading to make sure this is indeed an offering in a series, not an independently published monograph.

The senior author, Dr. Covino, though not an anesthesiologist, is widely known and respected within the specialty. His fame and reputation rest in part on his research and writing on the pharmacology of local anesthetics, and in part on his long association with Astra Pharmaceutical Products, Inc., an organization particularly active in and respected for their development of local anesthetics and for their support of anesthesiologists doing clinical or basic science research in local anesthesia.

The results of the long and productive interest in local anesthetics by Dr. Covino and Astra are the sum and substance of the present book. Dr. Covino and Dr. Vassallo (she is also at Astra) concisely and authoritatively summarize all the standard, classic data that should be known to every anesthesiologist; they also present and develop ideas and concepts that may be new to many readers. Why, for example, MAC values for local anesthetics can never be developed as they have been for inhalation anesthetics. Why the ratio

between maternal and fetal plasma levels of local anesthetics may not be as important a determinant of fetal toxicity as has been so often assumed, in view of the role played by the rate of uptake of local anesthetics by fetal tissues. And the important conceptual difference between pharmacodynamics and pharmacokinetics of local anesthetic, each worth a chapter. It was also a relief to find that authors as knowledgeable as Dr. Covino and Dr. Vassallo have no pharmacologic explanation for the puzzling fact that procaine and mepivacaine are such poor topical anesthetics.

The subtitle of this book promises something few authors choose to try: to discuss mechanisms of action as well as clinical use. Most attempts to navigate this Charybdis and Scylla leave either clinicians or pharmacologists unhappy. Few indeed are the authors who are equally able to discuss molecular mechanisms and clinical practice, but the present authors pull it off, and they do so with style. Those working at the cellular and sub-cellular levels will enjoy this book. So, too, will clinicians. Each will benefit by being exposed to what the other is interested in.

This is not to say the book is completely devoid of fault. All dogs have at least one flea. Repeated stress on the frequency and dangers of allergic reactions said to characterize ester-type local anesthetics is curiously at variance with the way most workers today regard so-called "allergic" responses to these compounds. Many remain to be convinced that true allergy to local anesthetics exists, other than as a contact dermatitis. The basis for the statement that duration of nerve block with ester-type local anesthetics is prolonged in the presence of atypical pseudocholinesterase is not clear, though systemic toxicity certainly would be expected to be increased. And confusion arises when the authors discuss the effects of a high PCO<sub>2</sub> associated with a decrease in pH due to metabolic acidosis. These are picaresque details, though. This is a good book. Every anesthesiologist should have it. So should all other physicians using local anesthetics, internists, surgeons, and especially cardiologists, dentists, too. Do not be thrown off by review articles on local anesthetics that have recently appeared. This is more than any review could ever be, an entity unto itself. And as you order your copy, hope that the quality of this monograph will be continued in subsequent volumes of the series. If so, we will have a new era in monographs in anesthesiology.

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Marihuana: Chemistry, Biochemistry and Cellular Effects. EDITED BY G. C. NAHAS, W. D. M. PATON, AND J. E. IDANTAAN-HEIKKILA. New York, Springer-Verlag, 1976. Pages: 556. Price: \$19.80.