

The Anesthesiologist's Bookshelf

Edited by MEREL H. HARMEL

Principles of Anesthesiology. By VINCENT J. COLLINS. Pp. 1175, 485 illustrations. Cloth. \$35.00. Lea and Febiger, Philadelphia, 1966.

Few attempts have been made to encompass the entire field of Anesthesiology in one text. The noteworthy early example was Gwathmey's "Anesthesia," published in 1914, (Second edition 1924) and the next was Lundy's "Clinical Anesthesia," printed in 1942. Both were fairly inclusive, incorporating concepts of physiology, pharmacology and anatomy applied to anesthesia, as well as consideration of both regional and general anesthesia. Two fairly comprehensive British books have appeared within the past seven years. Neither of these gives much emphasis to other than general anesthesia, although both are to be commended for their discussion of relationships of basic sciences and general medical care to the patient requiring anesthesia. Progress in medical care continues at an ever-increasing pace, so it is desirable that a contemporary comprehensive volume should appear. Dr. Vincent Collins, who has prepared this valuable tome, has long been an ardent advocate of sound development of Anesthesiology and has had much experience in teaching and in organization of this specialty. He is well qualified to present "Principles of Anesthesiology," the first of two volumes to appear. As Dr. Collins states, this volume is meant to cover the "How and What" of Anesthesiology; the second volume will be devoted to "What to do and When to do it." The general organization of this first volume is quite similar to that of Dr. Collins' earlier "Anesthesiology" (1952). It is divided into four general headings, (1) "Fundamental practices," (2) "Regional Analgesia," (3) "Physiological Considerations," and (4) "Pharmacological Considerations." Otherwise, there is little similarity between the two books.

The tremendous quantity of material collected and presented in this volume contains a pleasantly surprising amount of what directors of teaching programs have need to put together for trainees. Not only newer material such as the pharmacology of drugs that wasn't known when Lundy wrote his book, but also application of many well-known chemical, physical, and other principles, are included. Details are described well. For example, a table from Grundfest lists properties of nerve fibers in comparison to their sizes; several illustrations present the methods of proper placement of an epidural needle; an excellent description of superior laryngeal nerve block is given; pudendal nerve block is well outlined; the chapter on

"Blood Pressure" contains Rushmer's illustration of arteriovenous oxygen differences in various tissues; there is a graph showing the relationship between volume of air and amount of pressure used in cuffs on endotracheal tubes.

These few examples are not exceptions: the volume is replete with material such as these factors mentioned. It was meant, in the author's words, "to provide a comprehensive practical coverage of the specialty of anesthesiology and a source of fundamental information." The author has succeeded admirably.

The section on "Fundamental Practices" includes: an interesting account of the history of Anesthesiology; a section about records and legal considerations; a chapter describing monitoring of the anesthetized patient (which devotes 14 pages to measuring blood pressure but fails to mention the esophageal stethoscope); information about anesthetic equipment, posture of patients (the "Georgia" prone position is unfortunately omitted), preanesthetic considerations, general inhalation anesthesia, intravenous anesthesia, relaxants, spinal and epidural anesthesia; and discussions of developments in controlled hypotension, hypothermia, electroanesthesia, and hypnosis. There are also chapters about hyperbaric oxygenation and explosion hazards. Illustrations are abundant and practical. There is a page, for example, illustrating the sharpening of needles. Pictures of various types of oral airways are given. One enjoys schematic drawings of the flow of gas and liquid in vaporizers. In short, the material is comprehensive and is sufficiently well-chosen to be practical, even though "what to do" presumably comes in volume 2. When one recalls material that has been presented in the past few years in seminars and anesthesia meetings, the important features seem to have been collected in this book. An excellent background for a widespread knowledge of the field is presented. Unlike many volumes which refer to other sources for details, the more important details have been listed, photographed, or put into tables here.

The material on toxicology in the section on "Regional Anesthesia" has been put into a separate chapter. From the standpoint of safety of the patient being given local anesthesia by a man who does it only occasionally and who refers to a book such as this for directions, it would have been preferable if this material had been incorporated with the general information in this area. Nevertheless, the man who is learning or

who does local anesthetic procedures either occasionally or frequently will find excellent information and illustrations in this volume. In this section, the author also describes tests for presence of sympathetic function.

A world of information about the lungs, heart, and autonomic system is available in the section on "Physiological Considerations." A good bit of anatomy is also involved. The alterations in the systems most vitally affected by anesthesia are considered adequately and expounded admirably with graphs and illustrations.

"Pharmacological Considerations" is another section that has been written very practically. Theories of narcosis are reviewed, premedicated drugs described, and individual anesthetic agents discussed.

Even though there are fairly numerous typographical errors, it is rare that a book which contains so much material and is so succinctly written is so easily readable. Perhaps, as in "Life," the abundance of illustrations is a large factor, but whatever the causes, anyone with an interest in anesthesiology, from intern to expert, will enjoy reading these pages.

ROBERT W. VIRTUE, M.D.

High-altitude Diseases: Mechanism and Management. By CARLOS M. MONGE, AND CARLOS C. MONGE. Pp. 97, 23 illustrations. Cloth. \$5.75. Chas. C Thomas, Springfield, Ill., 1966.

This monograph is a father-son presentation. Both authors are well-know investigators of the physiology of high altitudes and one may accept their expertise. Carlos M. Monge, the senior author, is known for his description of chronic mountain sickness or seroche. In this volume, the authors contrast findings in the high-altitude residents with those in newcomers from sea level. In addition to describing the adaptation of the resident native population and the acclimatization and failure of certain adjustments of the sea-level arrivals, the authors emphasize the importance of climatic and environmental conditions. The combination of the cold and the low oxygen tensions contribute to the production of disease and the difficulties of acclimatization of persons from low altitudes.

One wishes that the authors had given more detailed and factual accounts of the physiology of respiration and circulation at high altitudes, especially since they have a long and wide experience of the subject. The major portion of their monograph describes results of studies pertaining to high-altitude residency, but few detailed accounts and solid data are presented. The authors however, do, refer to the many reports available, and their bibliography is good: 193 references are cited.

A short account of the historical implications of high altitude as it affected the policies of the Incas and Spaniards is presented. This interesting material resembles more recent situations in history

in which disease has determined the outcome of war. In this account the authors also describe how the infertility of the Spaniards and of the livestock at high altitudes affected the plans of the leaders.

Doctors K. Hellriegel and V. Macagno contributed a chapter on anesthesia and surgery at high altitudes. Most surgery, even thoracic surgery, can be undertaken as well at high altitudes as at sea level, if certain precautions in preoperative and operative management of the patient are taken.

The authors stress a high incidence of pneumoconiosis among the native population, and describe conditions which must be distinguished from chronic mountain sickness.

This monograph is another useful contribution to the knowledge of high-altitude diseases. It provides worthwhile descriptions and useful references to studies of high altitude. The monograph is mainly descriptive. For more objective information, the references in the original will have to be read.

HAROLD A. LYONS, M.D.

Cardiopulmonary Function Tests In Clinical Medicine. By THOMAS P. K. LIM, M.D., Ph.D. Pp. 171, 44 figures. Cloth. \$9.50. Chas. C Thomas, Springfield, Ill., 1966.

In the preface the author announces the form of his writing and his objective—"... this monograph is written as a primer for those beginning to learn the ABC's of pulmonary and cardiac function tests." Pulmonary function testing and respiratory physiology, cardiac catheterization techniques, phonocardiography and vectorcardiography are described in this monograph. Each topic is covered with clarity and brevity. Interspersed in the discussion are brief references to the significance of findings to disease and abnormalities. These references are almost asides. The text is readable and the figures are good. The content is simple and adheres to the ABC format. A real lack of depth is apparent, however, and the presentation adds little to that which may be found in other monographs dealing with the same subjects. The dearth of detailed and critical discussion suggests a news item of a daily paper. The assembly of the four separate topics into one volume would seem attractive, but each topic is so important in its own right and so cursorily handled that it is apparent it was an unwise attempt. As an example, in the chapter dealing with vectorcardiography, the author acclaims its worth and usefulness, and then concludes with statements that the technique is not yet standardized nor without certain limitations and shortcomings.

This book may be recommended to an uncritical reader, who wants a quick survey and a nodding acquaintance with some of the present-day techniques used for the study of cardiopulmonary diseases.

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