

The Anesthesiologist's Bookshelf

Edited by MEREL H. HARMEL

Cerebral Blood Flow. EDITED BY M. BROCK, C. FIESCHL, D. H. INGVAR, N. A. LASSEN AND K. SCHÜRMANNS. New York, Springer-Verlag, 1969. Pp. 291, 113 figures. \$14.50.

This volume is composed of the papers presented at the International Symposium on the Clinical Applications of Isotope Clearance Measurement of Cerebral Blood Flow, which was held in Mainz, West Germany, in April, 1969. The purpose of the conference was to focus attention on the relative simplicity and great usefulness of cerebral blood flow (CBF) studies in the management of patients with central nervous system disease. The 88 papers are grouped into seven chapters dealing with: Methodology; Regulation of CBF; Cerebrovascular Disease; Carotid Surgery; Tumors and Intracranial pressure; Trauma and Coma; and Anesthesia and Therapy. Each chapter is concluded by a short summary by the Chairman of that section of the Symposium.

The volume also includes overviews of the Conference by Dr. Seymour S. Kety and Dr. Niels A. Lassen. Dr. Kety's remarks give a succinct review of the present "state of the art" of CBF methodology and point up probable future developments. The section by Dr. Lassen is a very useful review of the clinical pertinence of CBF studies and their implication for the management of patients with various acute forms of brain disease.

The editors considered the rapid publication of these data their main objective and therefore made minimal changes in the manuscripts. Consequently, the quality of writing is inconsistent. Caution must also be exercised in interpreting some of these presentations, since many of the data were in a preliminary form and had not yet been submitted to critical editorial review. For the specialist already acquainted with the field, this volume is highly useful as a guide to current trends in cerebral circulatory research. It is less suitable for a wider audience; many of the papers presuppose familiarity with the subject.

The book has excellent illustrations and is printed on good paper with easily readable print. There is a good index, and the references at the conclusion of each paper will be useful to all who wish to become more familiar with the topic.

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Techniques in Clinical Physiology. EDITED BY F. W. BELLVILLE, M.D., AND C. S. WEAVER, Ph.D. London, Collier-Macmillan, 1969. \$2.00.

Measurement in anesthesiology has come a long way since 1848, when John Snow estimated the amount of chloroform present in blood "in dif-

ferent degrees of narcotism." Snow's procedure was simple but lacked precision. The reader of the beautiful and scholarly work that is the subject of this review is continually aware of the power and accuracy of the latest technique and also of the difficulty in bringing them to bear on the everyday management of patients. The objectives of Dr. Bellville and his associates are quantitative "clinical physiologic research and its clinical application," and this volume concentrates on the methods used or developed in pursuit of these aims in their laboratory. Primarily interested in the physiologic monitoring of acutely-ill patients with a minimum of risk, they have limited themselves to measurements made from outside the body, with the exception of those requiring arterial puncture. Within these declared aims and limitations, the treatise edited by Bellville and Weaver is a conspicuous success. The chapters are obviously written by men thoroughly familiar with the principles, practice and shortcomings of the procedures they discuss, and most are models of logical development and lucid presentation. Anyone who believes in clinical excellence through measurement stands to gain a great deal from studying this book.

L. P. Brooks leads off with an interesting summary, all in 50 pages, of fundamentals of applied electronics for medical workers, contrived with a minimum of mathematics and with the consideration of the operational amplifier, the transistor, noise, and patient safety. This is followed by a chapter on advanced methods of analyzing and monitoring the electrocardiographic signal, utilizing seven electrodes, analog to digital conversion, and an on-line computer. These, frankly, are research tools, and one gains the impression that their utility in anesthesiology is not yet clearly defined.

C. Whitcher contributes a chapter on measurement of blood pressure. His discussion of direct and indirect measurements is a timely restatement of established but too-often forgotten principles, and should be read by all clinical anesthesiologists, as well as research workers. Dr. Whitcher's emphasis is on indirect methods, and his article is the most exhaustive and most authoritative anesthesiologic critique now available on this important topic. Next comes a section on the evaluation of mechanical function of the heart, by N. T. Smith, clear and concise, yet quite comprehensive and with an expert appraisal of the advantages and limitations of the various techniques. However, the treatment of "myocardial contractile force" is sketchy and, in the light of recent work, already in need of rewriting. On the other hand, the discussion of cardiac output determination is quite outstanding and includes comparisons of the merits of specific instruments commercially avail-