

BOOK REVIEWS

ANESTHESIA. RONALD D. MILLER (Editor). New York, Churchill-Livingstone. Toronto, Academic Press Canada, 1982. 2 Vols. Price \$122.50 (Cdn).

THIS is a comprehensive American textbook on general anaesthesia, and, as such, reverses the recent trend which has seen a proliferation of monographs. Miller states that his aim was not to be encyclopedic but rather comprehensive. In these endeavours the authors are largely successful. Anyone who has attended the annual American Society of Anesthesia Refresher Courses will be familiar with both the authors and their subject material. The 32 authors represent a broad spectrum of American anesthesiology although most hail from California.

This reference is one of the most readable general anaesthetic textbooks. Most of the sections are self-contained and amply illustrated by tables and diagrams. The authors have come to grips with their subject matter and nearly always reach definitive conclusions. They do not leave the reader mired down in an exhaustive review of the current literature. Although most chapters are amply referenced, there are exceptions, such as the chapter on cardiac surgery. The editor has ensured that there are good cross references between chapters that touch on related areas. I am impressed that the text and references are quite current. The authors and publishers are to be congratulated as, all too often, large textbooks are out of date by the time they are released.

In any multi-authored text, some chapters stand out while others fall short. The introductory chapters on preoperative evaluation are of particular excellence and provide provocative challenges to our established routines. Likewise, the chapters on cardiac, thoracic, vascular and neurosurgery will stand the test of time. The chapter on paediatrics would have benefited by a description of the anaesthetic management of the more common paediatric disorders. Also the section on obstetrics gives only a sketchy account of the anaesthetic management of high risk pregnancy and gives no detailed account of foetal monitoring. In addition, the text lacks specific chapters on major physiological disturbances such as hypoxia and hypercapnoea.

However, in general there is a good balance between the basic scientific foundations of anaesthesia and the clinical application of this knowledge. There are the usual errors (mostly typographical) but in general these seem to be fewer than in other recent first edition textbooks.

In summary, I would recommend this textbook to all students of anaesthesia, be they nurse, resident or staff. In the future it will be the yardstick by which other textbooks will be measured.

JOHN P. CAIN

PAEDIATRIC ANAESTHESIA: TRENDS IN CURRENT PRACTICE. G. JACKSON REES AND T. CECIL GRAY. Woburn, Mass., Butterworths, 1982. Price: US \$39.95.

THE AUTHORS of this text attempted to "strike a balance" between the scientific and the practical; this approach they hoped would convey to the general anaesthetist the current trends in paediatric practice.

Chapters were authored by many distinguished individuals from Australia, Canada, and the United Kingdom. Subjects discussed included physiology and pharmacology in the infant and newborn, premedication induction and maintenance of anaesthesia, and intravenous fluid therapy. Specialized areas covered included anaesthesia for cardiac surgery, I.P.P.V. in paediatrics, and respiratory measurement in infancy.

This well-referenced easy to read text effectively summarizes those principles of practice critical to the delivery of safe paediatric anaesthesia. The book is a brief up to date text with enough information to provide the general anaesthetist with some guidelines as to what is important in the field of paediatric anaesthesia.

While reviewing this text it was a pleasure to discover the many similarities in attitude and practice that seem to exist in Canada and the United Kingdom.

L. ROY

PEDIATRIC ANAESTHESIA: CURRENT PRACTICE. M. RAMEZ SALEM. New York, Academic Press, Inc., Toronto, Academic Press Canada, 1982. Price US \$27.50.

THE PREFACE of this 158 page book concedes that the individual chapters are transcripts of presentations given by the various contributors at recent paediatric anaesthesia conferences and this fact will be quite obvious to the reader. As with many multi-authored texts, the quality of the individual chapters and the writing styles vary considerably.

On the whole I found the writing style relaxed, even "folksy", but the informational content was current and relevant. The references, however, are inadequate for a more in-depth followup.

Especially good were Dr. Gregory's presentations on the topics of "cardiovascular adaptation at birth", "oxygen monitoring", and "acid aspiration syndrome". Drs. Salem's and Griffin's discussion on patients with congenital cardiac disease having non-cardiac surgery was the best summary I have read anywhere.

This is a book on isolated topics in paediatric anaesthesia and not a comprehensive review of the subspecialty. Thus if the reader is looking for a "textbook" of paediatric anaesthesia, look elsewhere. But if one wants to dabble at a depth in certain isolated areas of interest, then this book will be useful.

J. PULLERITS

PHYSIOLOGY OF SPINAL ANAESTHESIA. NICHOLAS M. GREENE. The Williams and Wilkins Company, 3^d Edition, 1981. Price US \$38.50.

ANAESTHESIA, much like evolution, proceeds not in a gradual continuum, but in frenzied bursts punctuated by times of tranquillity. Natural selection, which fostered the evolutionary surge in general anaesthesia, consigned spinal anaesthesia almost to obscurity, but for a few conservationists who sang (and sing) its praises or, like Dr. Nicholas Greene, explore its fascination. His 'Physiology of Spinal Anesthesia' now makes its third appearance in twenty-four years, a foreword by the late John Gillies taking us back in time to the era of "physiological trespass."

I delved into this third edition with some excitement, expecting to find those virtues of spinal anaesthesia – precision and profundity –

reflected in Dr. Greene's text and hoping to share in his inquisitiveness about "what happens after a local anaesthetic is injected into the subarachnoid space." I came away sadly disappointed.

Nine chapters consider the effect of spinal anaesthesia on different organ systems and a final chapter contrasts epidural and spinal anaesthesia. Appropriately, the book begins with the Central Nervous System. The number of references predating its first edition (1958) testifies to the author's early diligence in researching the literature; but many seem outmoded in 1982. Nothing escapes Dr. Greene's scrutiny as he dissects papers, good and bad, in sometimes minute and often monotonous detail "... they found the average level of motor paralysis to be T6.2 ..." (how, by decimal-point discrimination?). Determined to be uninfluenced by occasional spelling mistakes (dermatone, anaesthetic) but troubled by a minor inconsistency in units (blood flow as cc per 100 gm per min., then ml/100 gm/min.; doses as mg per kg, then mg·kg⁻¹) I read the chapter assiduously, searching in vain for some literary light relief, or the picture worth a thousand words.

I hoped for better from "The Cardiovascular System" but found the discussion on arterial and arteriolar circulation confusing. Failure to present numerical information in tabular form and continuing unitary inconsistencies (TPR as dynes per second per cm⁻⁵, then dynes-sec/cm³; P_{CO2} as mm Hg, then kPa, etc.) exhausted my patience. As if regurgitated by some wandering compositor bug, misspellings multiplied (encrcled, capillary, ammount, grater – sic! – anehia?) and exiting for existing appeared in a mere fifteen pages).

Nor could my own subspecialty interest sustain a flagging enthusiasm; many of the obstetrical references ante-date tilt. Errors of fact (blood volume in pregnancy increases by 35 per cent, not 10–15 per cent as stated) an indigestible literary style and an inexplicable habit of discussing the unimportant and negative phenomena first, serve to alienate the reader who labours this far.

The chapters on hepatic and renal function, although more informative, resemble a catalogue of abstracts, old (usually) or new, in a mish-mash of terminology. As the work has aged its original portions appear not to have been discarded, making a text "out of time". Perhaps that describes spinal anaesthesia; if so I, for one, regret its passing and this unhappy memorial.

Dr. Greene, a distinguished contributor to our specialty, earns praise for his painstaking research. While I cannot recommend his monograph to residents who prefer the didactic approach, researchers will admire the exhaustive bibliography.

The book's presentation and typography merit praise, but the publishers deserve censure for the rash of spelling errors, failure to adopt SI units throughout and unwillingness to number references. They could have encouraged careful pruning over the years; had they done so the author's unquestioned industry might have borne greater fruit.

W.D.R. WRITER

PREOPERATIVE PULMONARY PREPARATION. A CLINICAL GUIDE. P.M.S. MARGAND, C.G. BROOKS, J.W. HUNTER. The Williams & Wilkins Company. 1981. Price US \$16.50.

POTENTIAL PULMONARY problems resulting from surgery and anaesthesia are best prevented by thorough preoperative evaluation of the pulmonary system and the institution of prophylactic maneuvers when indicated. This is the basis of this small handbook which is written primarily for students, housestaff, nurses and respiratory technologists. While emphasizing preoperative evaluation and management, the text adequately describes the rationale for therapy based on the changes to be induced by the ensuing surgical procedure. However, it might have been more valuable to continue the theme and also to discuss post-operative management. The text is verbose and repetitive with certain figures reappearing again later in the book. The pressure-volume diagram shows the tidal volume crossing the FRC line; the "match test" is incompletely described; there is an inaccurate description of MVV; there is no discussion of V_A/Q imbalance in the section on hypoxaemia; there is confusion concerning absolute or percentage change of $(A-a)Do_2$ which could be misleading. The equations in the appendices are likely to receive scant attention from the intended readership. Despite these shortcomings the strength of the book lies in its clinical component, which meets the requirements of the likely audience. Anaesthetists will find much more pertinent reviews of respiratory management elsewhere.

RICHARD A. BARKER

THE QUANTITATIVE PRACTICE OF ANAESTHESIA: USE OF CLOSED CIRCUIT. HARRY J. LOWE AND EDWARD A. ERNST. The Williams & Wilkins Company, 1981. Price US \$42.00.

CLOSED CIRCUIT ANAESTHESIA is less widely practiced in this country than in the U.S.A., whence this book originates. This is strange in light of the preoccupation with environmental pollution in the operating room. One way of solving this dilemma is, of course, a system which as closely as humanly possible is leak-proof, both as far as involuntary and voluntary loss from the anaesthetic machine and breathing circuit are concerned. The authors of this book point out that in the semiclosed system only the concentrations delivered by the machine are known, whereas in the closed system information can be gained about uptake and quantitative disposition of the anaesthetic within the body. Thus a new scientific perspective is added to the anaesthetic process. This book is no light bedtime reading; on the contrary, it is heavy going with a generous sprinkling of mathematical formulae. The text is beautifully supported by a very large number of graphs, line drawings and popular illustrations to ease the reader through a maze of technical information. This book is unique in that this type of information has never before to our knowledge been assembled under one cover. Individual chapters are each supported by an exhaustive bibliography. The book is well-produced; the index is thorough and informative. It is strongly recommended for all anaesthetists, especially those with a flair for and understanding of physics.

GORDON M. WYANT

CARDIAC ANESTHESIA. THOMAS J. CONAHAN III. Menlo Park, Calif. - Addison-Wesley Pub. Co. Inc., 1982. Price US \$29.95.

THIS 16 × 24 cm book on cardiac anaesthesia is to our knowledge the fourth of its kind in recent years. The book has 327 pages divided into 15 chapters covering congenital, valvular and coronary artery diseases. These topics are covered from the natural history of the disease, its surgical and anaesthetic approach. Other chapters included are cardiac catheterization, monitoring, myocardial preservation, pharmacol-

ogy, haemostasis and postoperative intensive care.

The book is authored by a group of 15 contributors mostly from the Arizona Health Sciences Center, University of Arizona, Tucson, with the contribution of members of the Universities of Pennsylvania, Texas and Alabama. It contains 25 tables and approximately 80 figures.

The aim of the editor was to provide the resident or the practitioner entering "the maze" of anaesthesia for cardiac surgery with a basic text representing an overview of the problems of heart surgery. It is not, to quote the editor: "a reproduction of a major text in cardiology or cardiac surgery."

The book reads easily, the make-up is pleasant with paragraphs clearly titled. The arrangement of the different chapters is logical but the topics are unevenly covered. For example, myocardial preservation, haemostasis, cardiac catheterization are dealt with in depth while other topics like those on pharmacology, on surgical approach to coronary artery disease leave something to be desired from oversimplification.

The editors concern of providing "*how to do cardiac anaesthesia cook book*" by adding two appendices on halothane or morphine anaesthe-

sia is overly simplistic even if, as mentioned in the chapter on coronary artery disease, it is said that: "the operative procedure (CABG) is not difficult and can be managed in many community hospitals". Incidentally, not everyone would share this opinion ...

Chapter 9 on Coronary Artery Disease, Special Anaesthetic Consideration, the author does not mention the influence of ventricular contractility on the anaesthetic management; this appears as a major omission.

Furthermore, we find that for a book pretending to provide an overview on "how to do cardiac anaesthesia", missing a specific chapter on pre-operative evaluation of the cardiac patient is a considerable fault; likewise, renal, neurological and psychiatric problems are not discussed. The reader will still be wondering about variant angina, hypertension and the concept of "stress free cardiac anaesthesia".

All in all, in these times of inflation and considering the price vs the information we are getting, this book might be valuable for a practitioner wishing to be informed but not really involved.

MARCEL BOULANGER
PHILIPPE SAHAB