The Anesthesiologist's Bookshelf

Edited by MEREL H. HARMEL

Acute Barbiturate Poisoning. Treatment with Modern Methods of Resuscitation. By SVERRE J. LOENNECKEN, Head of the Department of Anaesthesia of the Neurosurgical Clinic of Cologne University. Translated by Barbara and Helmtrud Hammer. Paper. Pp. 78 with 26 illustrations. John Wright and Sons, Ltd., Bristol, 1967 (The Williams & Wilkins Co., Baltimore, exclusive U. S. agents). $3.50.

This small monograph is an English translation of an original German edition published in January 1965. The text is divided into three parts. Part 1 presents a review and overview of historical aspects, biochemical pharmacology of the barbiturates and methods of treatment in acute barbiturate poisoning; part 2 spells out in considerable detail the author's approach to resuscitation in acute barbiturate intoxication; part 3 compares results achieved with two types of treatment, one based on administration of analeptics and the other on resuscitation by anesthesiologic means.

The scope of the book deliberately excludes such specialized techniques as diuresis and extracorporeal hemodialysis (although these are summarized in Part 1), on the premise that concomitant monitoring of electrolytes, pH and the cardiovascular system requires special laboratories which are found only in large hospital centers. Yet the author pictures and describes a special control unit he has designed and utilizes for measuring blood–oxygen saturation, inspired oxygen content, alveolar carbon dioxide, respiratory minute volume, electrocardiogram, peripheral pulse amplitude and temperature; the unit is able to record as many as six of these parameters as desired. Also omitted by choice are psychiatric and neurologic aspects of the recovery period, deemed beyond the scope of the title.

The major part of the book is devoted to an exposition of Dr. Loennecken's methods and techniques of resuscitation, aimed at normalization of individual organic functions, *i.e.*, physiologic therapy. The methodical discussion opens by stressing the importance of initial treatment outside the hospital, in preparation for transport to the hospital. Pictured here are a respiration–circulation–resuscitation ("R.C.R.") apparatus for ambulances, etc. and a smaller version for general practitioners and factory doctors. Treatment in hospital, detailed with workmanlike precision, has a distinctly regional flavor. The Dräger "tussomat" is curiously reminiscent of the early cough machine ("Cofflator") of Drs. Barach, Bickerman and Beck. Insufficient or Cheyne-Stokes respiration is aided artificially "unless analeptics (cardiozol, or, better even, eukraton) produce an immediate, lasting effect." Recommended vasopressors are veritol, novadral and noradrenaline. Among measures for supporting circulation, strychnine nitrate is recommended for "tonicizing."

The final section of the book compares results of analeptic therapy (1951–54) with results by anesthesiologic methods (1955–61). These two consecutive, differing series obviously do not constitute a controlled study permitting statistical analysis. Nevertheless, the contrast between the two is striking: mortality was reduced from 9 per cent with purely analeptic treatment to an average of 2.14 per cent with anesthesiologic therapy (1.7 per cent during the last year of observation); pulmonary complications, the chief hazard of prolonged coma, were largely averted in the second group; and unavoidable death from other causes was delayed longer with anesthesiologic than with analeptic therapy. On the other hand, durations of hospital stay were similar in the two periods, *i.e.*, the analeptic method did not imply a shorter duration of treatment. Indeed, with anesthesiologic treatment 35.4 per cent of patients who later died of other causes had first awakened to the point of conversation, as compared to only 5.5 per cent who did so with analeptic therapy.

For reasons not clearly stated in the text, Dr. Loennecken continues a lukewarm advocacy of analeptics. Thus, he states in an introductory paragraph, "analeptics may also be employed in a treatment based on anaesthesiological methods of resuscitation, *i.e.*, there is no one way or other in the use of analeptics. *The significant decrease in mortality*, however, proves that the treatment based on anaesthesiological methods of resuscitation is the more successful one." The evidence in this book clearly indicates that the second sentence quoted is the operant one, yet the summary still concludes that "purely analeptic treatment and . . . treatment based on anaesthesiological resuscitation are not conflicting methods" and that "anaesthesiological treatment combined with the limited addition of analeptics has the best chances of success."

Despite the preceding quotations, the book is packed with factual data which provide cogent arguments against the use of analeptics in barbiturate poisoning. The undocumented conclusion does not negate the usefulness of the remaining material. The interested reader who is willing to overlook the discrepancy will find much of interest in the text.

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International Anesthesiology Clinics, Vol. 4, No. 2, Summer 1966. Barbiturate Poisoning and Tetanus. EDITED BY SOPHUS H. JOHANSEN, Head, Department of Anesthesia II, Copenhagen County Hospital, Gentofte, Hellerup, Denmark. Cloth. Pp. 277–448, with 26 illustrations. Little, Brown and Co., Boston, 1966. $22.00 per year.

This volume, representing an overseas symposium-by-mail, emanates largely from Copenhagen, with contributions from Sweden, Norway and South Africa. Its seemingly odd grouping of dissimilar clinical entities, is justified by Dr. Johansen as a dual exercise in intensive care. The concept is implemented by Dr. Isben's description of the historical background and development of intensive therapy in Copenhagen, with some interesting sidelights on the polio epidemic of 1952. The late Dr. Clemmesen's chapter does the same for barbiturate poisoning as treated at the Bispebjerg Hospital's world-famous Poison Center. Details of airway management and respiratory care are discussed from the viewpoint of the anesthesiologist (Dr. Nilsson) and the laryngologist (Dr. Bergström), in overlapping accounts which might have been better coordinated. A chapter by Dr. Lous on elimination of barbiturates introduces discussions by Dr. Myschetsky on urea-induced osmotic diuresis with alkalinization of the urine and by Dr. Wieth on hemodialysis. Three psychiatrists present evidence to disprove the causal relationship between the "welfare state" and suicide (Dr. Paerregaard), analyze statistics of attempted suicide (Dr. Udsen), and discuss psychiatric factors in barbiturate poisoning (Dr. Dale). The last of the chapters on barbiturate poisoning, by Dr. Wilhjelm, examines the increase in resistance of mice to anoxia when at the same time cerebral metabolism is lowered by tiomebumal (an unofficial Danish name for thiopental). This chapter is included as possibly contributing to an understanding of one factor which may influence survival. The final three chapters, again somewhat repetitious, deal with modern tetanus treatment (Dr. Nilsson), tracheotomy for the neonate, and treatment of tetanus neonatorum (both by Dr. Smythe). Lists of useful references are appended to most but not all of the chapters.

The book does indeed fulfill its expressed aim of presenting current concepts in the treatment of barbiturate poisoning and tetanus. Although the variety of contributors results in some unevenness of presentation, interest is never lacking. The major thrust is appropriately directed toward management of airway problems in both conditions, coupled with abandonment of analeptics in favor of other measures to shorten coma in barbiturate poisoning and efforts to combat the spread of toxin in tetanus. The inclusion of psychiatric discussion of suicide, all too often dismissed with a few casual comments, is a welcome addition. Also of interest is the description of the Ingelstedt-Toremalm "artificial nose," an ingenious heat and moisture exchanger to humidify air inspired through a tracheostomy.

Muscle relaxation with *d*-tubocurarine is described for tetanus neonatorum, but in older patients mephenesin is preferred since "large doses of curare administered over a relatively long period were deleterious to the circulation." (Drs. Pocidalo and Vic-Dupont of the Hôpital Claude Bernard, Paris, attributed this effect to strong single doses of *d*-tubocurarine intravenously, and were able to avoid it by changing to slow intravenous infusion of the drug.)

This volume should be of interest not only to anesthesiologists, but also to psychiatrists, internists, pediatricians and clinical pharmacologists.

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The Lung. EDITED BY A. A. LIEBOW. Cloth. Pp. 400, with illustrations. The Williams and Wilkins Company, Baltimore, 1968. $14.75.

"The Lung," for a title of a book, calls to mind the popular previous publication "The Lung," by Comroe, Forster, DuBois, Briscoe and Carlsen. Unlike the first similarly-titled book, which is a text on respiratory physiology, the present volume includes many topics. Both books, of course, point to the increasing interest in respiration. The editor, Dr. Liebow, who is also a contributor, is eminent and authoritative in this area. The book is made up from the presentations of a course organized by Dr. Liebow as a part of an educational program sponsored by the International Academy of Pathologists. The topics range from morphology to comparative pathology of pulmonary diseases, with two additional sections on symposia on geographic pathology of pulmonary disease and on methods for the study of pulmonary disease.

The articles have been contributed by authorities in the many areas of pulmonary anatomy, function and diseases. Much of what they have contributed had been reported previously, and in certain instances has not been as well done.

The writing throughout the book is clear, and the illustrations are excellent.

The methods of study presented are the recent acceptable methods, which include mechanical properties of isolated lung preparations. The chapters describing postmortem correlates of pulmonary function, paper-mounted sections, injection methods and electron microscopy are most important to the pathologist who wishes to learn the modern approach to the study of pulmonary pathology. Application of these techniques has correlated the pathology more closely with the clinical features and the physiologic findings and has increased our knowledge and understanding.

An excellent chapter by Dr. Liebow, "New Concepts and Entities in Pulmonary Disease," describes such diseases as alveolar proteinosis and desquamative interstitial pneumonias. In this chapter we learn some of the concepts which Dr. Liebow has developed through his years of experience. His thoughts on the cellular popula-

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