

closing volumes, PEEP, or current theories of respiratory care. The statement that there is a "lack of equipment immediately available for intermittent positive pressure breathing" (vintage 1954-1963) is not corrected or updated. Similarly, readers are referred to a symposium issue of the *British Journal of Anaesthesia* published a year earlier for a more detailed consideration of the problem of halothane hepatitis. Finally, no mention is made of such pharmacologic advances as the opiate antagonist naloxone, fentanyl, droperidol, diazepam, bupivacaine, etc. In summary, what is highly valued in one medium, is less so in another.

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The Anesthesiologist, Mother and Newborn. By S. M. SHNIDER and F. MOYA. Baltimore, Williams and Wilkins, 1974. Pages: 295. Price: \$16.50.

This outstanding publication is based on the 1972 Post Graduate Seminar of Anesthesiology of the Universities of Miami and Florida, at which 20 authorities in the field of perinatology discussed the recent advances in maternal and fetal physiology, obstetric anesthesia, and management of the distressed newborn. There are eight chapters on basic principles, six on controversial aspects of obstetric anesthesia, ten on the fetus and newborn. Hon discusses the diagnosis and management of fetal distress and the use of fetal monitoring equipment. Chapters by Gregory, Shnider, and James review the management of the depressed newborn. James' excellent review of the current status of respiratory distress syndrome leads into the final section, entitled "Mechanical Ventilation of the Newborn Infant," containing six chapters on the management of the newborn with respiratory distress. Shnider and Moya have done a superb job of editing the material, and the result is an interesting, useful survey of modern anesthesiologic management of the parturient, fetus and newborn.

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Anesthetic Management of Endocrine Disease. By T. OYAMA. New York, Springer-Verlag, 1973. Pages: 220. Price: \$21.80.

Endocrines and Enzymes in Anesthesiology. By C. M. BALLINGER AND V. L. BRECHNER. Springfield, Ill. Charles C Thomas, 1973. Pages: 240. Price: \$23.80.

Anesthesiologists have a dual interest in the endocrine glands: to what extent do changes in endocrine function alter the response to anesthetics, and, *vice*

versa, to what extent do anesthetics affect the function of endocrine glands? The former have proven more susceptible to quantitation than the latter. Recently, for example, the changes in anesthetic potency, or MAC, associated with thyroid dysfunction have been measured. The older literature contains information on how changes in output of female sex hormones may affect general anesthesia, at least in experimental animals. Still lacking are data on the extent to which disorders of the adrenal cortex or medulla, and other endocrine glands, may alter the response to anesthetics, but these presumably could be measured as readily as the effects of hyper- or hypothyroidism.

When it comes to evaluating how anesthetics affect the function of endocrine glands, we have much in the way of data, but strikingly little insight into the functional significance of changes. Investigators in this field continue to rely to a great extent on blood levels of various hormones as affected by anesthetics. This may be necessary because of the state of the art, but what do blood levels really tell us? When circulating levels of hormones become elevated during anesthesia or surgery, is it due to increased release (and normal tissue utilization), to decreased utilization (and normal release), or to increased release plus decreased utilization? Sometimes we know part of the answer; for example, elevated plasma cortisol levels during anesthesia reflect increased release of hormone from the adrenal cortex, and we even know this is occasioned by increased release of ACTH from the pituitary, but we still know little about rate of cortisol utilization and nothing about whether elevation of plasma cortisol elicits the same metabolic and physiologic responses during anesthesia as in the absence of anesthesia. Are the elevated plasma cortisol levels beneficial or harmful? We do not really know. Our ignorance is even greater when we try to interpret changes in plasma levels of insulin, thyroxine, or other hormones. We know little of either the etiology of recorded changes or of their significance.

Problems inherent in the interpretation of blood levels and other common indices of endocrine function during anesthesia must not serve as the basis for pharmacologic nihilism, for throwing up one's hands and falling back on pragmatic reporting of sterile laboratory data. A great deal of material is available and ripe for imaginative review and perceptive analysis of where we stand and where our future investigations should take us. One welcomes, therefore, the appearance of two texts which, their titles suggest, will provide the insight and perspective so needed in this field. Dr. Oyama is particularly qualified for such a task. He has worked longer and has published more on endocrine responses to anesthesia and surgery than anyone else. His monograph, "Anesthetic Management of Endocrine Disease," in 152 pages of text and 61 pages of references, supplies an encyclopedic presentation of most of the world literature on endocrine responses to anesthesia. A chapter is devoted to each of the endocrine glands, starting with an outline of normal function and concluding with extensive clinical

recommendations. There are omissions, though most are minor. Prostaglandins are treated superficially. The influence of thyroid diseases on MAC is not considered. Testosterone is discussed, but female sex hormones are not, a dangerous bias in this day and age. Some of the discussions are quite peripheral to the subject. Endocrine glands, by definition, secrete into the blood compounds which are carried to other parts of the body, where they regulate function. How myasthenia gravis, shock, and sympathetic pharmacology fit into a text devoted to endocrine disturbances is not readily apparent. The index has a curiously erratic approach to alphabetization. Above all, the purely descriptive treatment disappointingly limits the value of the monograph. All the published data on blood levels of hormones are presented, but the author never comes to grips with what they mean. Consequently, all the monograph does is to assemble in one place previously scattered information concerning blood levels of endocrine hormones during anesthesia and surgery. This, of course, has value as a ready reference source, and the monograph should therefore be included in comprehensive anesthetic libraries, especially those in academic departments.

The title of the second book, *Endocrines and Enzymes in Anesthesiology*, belies the contents. The majority of the 23 chapters have little to do with enzymes or endocrines. There are excellent and authoritative chapters by Hsia on developmental genetics, by Nastuk on quaternary ammonium compounds, and by Roberts on transphenoidal surgery, as well as charming essays on relaxants by Cullen and on "incapacitating agents" by Ketchum. Those chapters which do discuss endocrines and enzymes (why the two are combined is unclear) fail rather consistently to establish new frontiers or to cover a subject in depth. An exception is the contribution by Jenkins and Giesecke on fluid and electrolyte disturbances in endocrine disease. ADH, insulin, and thyroxine are dealt with superficially in chapters of two pages. It is difficult to recommend this monograph except for four or five pleasant essays that are rewarding, if extraneous to the title of the book.

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Anaesthesia and Analgesia in Dentistry. By R. A. GREEN AND M. P. COPLANS. London, H. K. Lewis and Co., Ltd., 1973. Pages: 398. Price: £8.00 net.

This well-produced book provides an interesting insight into dental anesthesia and analgesia in the United Kingdom, where practice differs vastly from that in the United States. In the United Kingdom, 50 per cent of the dental anesthetics are given by consultant anesthetists, for whom it constitutes a major source of supplementary income. In the United States there simply are not enough anesthetologists to administer the four million dental anesthetics (roughly one fifth of all general anes-

thetics) given each year; the operator doubles as anesthetist and works with a team of dental assistants or nurses. The authors of this book consider that general anesthesia is never "minor" enough to justify a dentist's or doctor's acting as both operator and anesthetist. Since 1968, 20,000 nitrous oxide-oxygen inhalation sedation machines have been sold in this country, but nothing like this has happened in the United Kingdom, where intravenous sedation is much more popular, and United States equipment is not discussed in the book. The extensive American dental anesthesia and analgesia literature is generally ignored. The section on local anesthesia mentions a 12 per cent incidence of inadvertent intravenous injection with inferior alveolar nerve block. Clearly, an aspirating syringe is an essential item of equipment for the dentist.

There is a good review of preoperative problems, but no mention is made of preoperative blood pressure, temperature, family history taking, or permit signature. Numerous inadequate excuses are made for avoiding routine monitoring of blood pressure and heart sounds. Postoperatively, the patient is observed for a maximum of 30 minutes and is then given outpatient follow-up instructions; recovery from anesthesia must be more rapid than in the United States. In the review of the Jorgenson technique of sedation (intravenous Nembutal, Demerol and scopolamine), no indication is given of why concurrent bilateral inferior alveolar nerve block is unjustifiable. The section on posture in the dental chair is of great value, except for the photographs of the patients seated with legs dependent. The sections on anesthesia for the difficult case, the medically unfit, children, and maxillofacial surgery are well documented and provide useful information, and the reasons given for blind nasal intubation are sound, although preoxygenation and the administration of oxygen prior to extubation are generally ignored. On the whole, the authors have succeeded in their aim of providing both practical and theoretical guidance to those engaged in the practice of pain relief in dentistry.

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International Symposium on Malignant Hyperthermia. EDITED BY R. A. GORDON, BEVERLEY A. BRITT, AND WERNER KALOW. Springfield, Ill., Charles C Thomas, 1973. Pages: 512. Price: \$22.50.

Malignant hyperthermia is feared by anesthetologists as a mysterious metabolic disorder that strikes out of the blue, with rare and dread effect unmistakably caused by the administration of an anesthetic drug. In earlier years when diethyl ether anesthesia was the stand-by, fever evoked by general anesthesia was usually viewed as a complication of premedication with belladonna deriva-