

Book Reviews

Mechanism of Action of Benzodiazepines. EDITED BY E. COSTA AND P. GREENGARD. New York, Raven Press, 1975. Pages: 190. Price: \$14.50.

Ten papers presented at a symposium on benzodiazepines (December 1974 Annual Meeting of the American College of Neuropsychopharmacology) are the text of this book. The unifying theme is the neurochemical and neurophysiologic basis of these agents' therapeutic effects.

What emerges from the collective investigations is that benzodiazepines affect either the turnover or the membrane action, or both, of most suspected central nervous system neurotransmitters and second messengers. But these effects are largely the result of benzodiazepine action on gamma-aminobutyric acid-mediated presynaptic inhibition. This fact is presented in the book's preface and provides a helpful perspective.

In general, however, a lack of diagrams makes the papers difficult to read and digest; complex neuroanatomic connections are discussed, along with the complicated interactions of transmitter agonists and antagonists, as well as inhibitors of neurotransmitter synthesis and biotransformation. As the text stands, its effective audience is limited to those familiar with the current state of CNS neurotransmitter pharmacology. Anesthesiologists looking for a clear, concise discussion of the therapeutic value of benzodiazepines and how they affect the CNS should look elsewhere.

JAMES E. HEAVNER, D.V.M., Ph.D.
Department of Anesthesiology
University of Washington
Seattle, Washington 98195

General Urology. Eighth edition. By D. R. SMITH. Los Altos, Cal., Lange Medical Publications, 1975. Pages: 492. Price: \$10.50.

This reviewer has watched Don Smith's *General Urology* evolve over the years with admiration and envy. It started as an outline developed from notes taken at lectures given to medical students, but has long since far exceeded that original modest objective. It is probably the most popular general urological text available today, and deservedly so. The latest edition contains 50 more pages than the seventh edition of 1972, and the additions are most useful. The chapter on the adrenals has been almost completely revised to include excellent diagrams and tables of known enzymatic deficiencies that produce the adrenogenital syndromes. There is a new chapter on immunology of genitourinary tumors that is timely. Dr. Tonaglio has revised the section on the embryology of the genitourinary system and updated it.

Of particular interest to anesthesiologists are Chapter 3, which details the symptoms and somatic referral patterns of pain in the urinary tract (what other text gives the spinal levels for pain in the

glans penis?), the chapters on ultrasonic examination of the urinary tract, radioisotope kidney studies, urinary tract infection with specific reference to Antibiotic Dosage in Renal Failure, and the chapter on renal vascular hypertension.

As a relatively inexpensive compendium of urinary tract problems with up-to-date references, this is an unexcelled basic text for medical students, generalists, and specialists (including urologists).

JULIAN S. ANSELL, M.D.
Department of Urology
University of Washington
Seattle, Washington 98195

Pain Patients. Traits and Treatment. BY R. S. STERNBACH. New York, Academic Press, 1974. Pages: 135. Price: 9.50.

This book is indeed "a practical manual for the understanding and treatment of the patient in pain." As such, it is to be highly recommended as a guide for those of us treating chronic pain patients. However, because of the insight it gives into the nature of patients in general, it can also be recommended to all medical students in their early years of clinical training. All too frequently, the student's introduction to clinical matters is restricted to physical diagnosis, with very little information concerning the psychological management of patients, or understanding of the transactions taking place between physician and patient.

Dr. Sternbach has concisely put into words the experience and skills he has acquired from many years spent in dealing with the most difficult of all patients—the individual who chronically presents with pain complaints. The first part of his book concerns the pain patient, the experience of chronic pain, and the psychological changes produced by chronic pain. The chapter on psychogenic pain is uniquely valuable in clearing up much confusion now existing concerning those patients labeled psychological problems because of the lack of adequate physical findings to explain their problems on a somatogenic basis. The author discusses and gives examples of the relation of pain to hypochondriasis. His chapter on pain and depression will be particularly useful to the clinician for its practical classification and description of the depressions, and their diagnosis and management.

The chapter on pain transactions describes the interactions occurring between patient and physician. This will no doubt prove to be an eye-opener to many a physician, particularly to the beginning clinician.

The second part of the book relies heavily on the author's personal experience in diagnosis and treatment of chronic pain patients. The use of tourniquet test and the MMPI in diagnosis, and of patient-physician contracts, operant conditioning, cutaneous stimulation, and biofeedback in treatment

is emphasized and clearly explained. For clinicians who undertake the management of chronic pain patients, the discussion of predictors of success will certainly help them to select those patients most likely to respond to therapy.

If fault can be found, it is primarily in Dr. Sternbach's emphasis of the psychological aspects of the chronic pain patient. But, fault or not, it balances Dr. Sternbach's unique contribution against the many texts written on surgery, nerve blocks, analgesic drugs, physiotherapy, and other such measures, which often neglect the points Dr. Sternbach emphasizes. His book is a very good buy at the price, and I predict it will become a classic in the literature of pain.

RICHARD G. BLACK, M.D.
*Department of Anesthesiology
University of Washington
Seattle, Washington 98195*

An Introduction to Electroanesthesia. BY AIMÉ LIMOGÉ. Translated and edited by R. M. Johnson. Baltimore, University Park Press, 1975. Pages: 121. Price: \$12.50.

Electroanesthesia. Biomedical and Biophysical Studies. BY ANTHONY SANCES, JR., AND SANFORD J. LARSON. New York, Academic Press, 1975. Pages: 367. Price: \$36.00.

The simultaneous publication of two books on electroanesthesia indicates renewed interest in this field. Activities in electroanesthesia have surfaced periodically since the turn of the century, but have not resulted in comprehensive publications. Interest is stimulated by shortcomings of the pharmacologic agents used in day-to-day general anesthesia, such as various forms of toxicity. The promise of a rapid return to normal after termination of the electric current is very attractive. These two books complement each other, but both lack information on long-term physiologic effects.

"An Introduction to Electroanesthesia" is what it says—an introduction. It describes the historical evolution of the basic techniques of electroanesthesia and then reviews experience in the Soviet Union, and, more briefly, in other countries. Various theories try to explain the anesthetic action of electrical currents by "activation" or "deactivation," by modification of enzyme activities and depolarization effects. The theorizing, however, lacks experimental substantiation. Structural changes observed in the central nervous system are all considered to be reversible. An analysis of autonomic responses is rather brief and vague, claiming that most deviations are of electrolyte and hormonal origin. An appendix delineates the present state of regional electroanesthesia. That electroanesthesia presents problems, namely difficulties in induction, lack of stability of the physiologic modalities, and unpredictability of the depth of anesthesia, is recognized, but the potential value

in accident and trauma surgery is emphasized. Some misprints are disturbing, such as over-generous premedication with 2 grams of morphine for a 10-kg dog (page 11) or with 50 mg morphine, 50 mg Largactyl and 50 mg Phenergan for a 35-kg dog (page 45).

The volume on "Electroanesthesia" by Sances and Larson is well organized, carefully indexed, and has good illustrations and up-to-date references. An extensive section on waveforms and electrodes precedes a group of physiologic studies on the monkey. Alterations of gastric acid secretion, as well as of evoked potentials, by electroanesthesia, are reported, and effects on the encephalogram and on the visual pathways are outlined. In an investigation of the incidence of cell damage in the central nervous system, an increase in the number of vesicles at synaptic endings during electroanesthesia proved to be reversible after cessation of the current. Behavioral investigations suggest that prompt recovery of animals to their previous behavior pattern occurs. The remarkable stability of brain and blood electrolytes during electroanesthesia is dealt with in an excellent chapter. The clinical application to ten patients at the Necker Hospital in Paris is described, and additional clinical information is contributed from the USSR, Japan and India. The Japanese report presents experiences with 42 patients, with data on cardiac output, cerebral blood flow and cerebral metabolic rates.

E. O. HENSCHKE, M.D.
*Department of Anesthesiology
The Medical College of Wisconsin
Milwaukee-Wood, Wisconsin 53193*

A Primer of Water, Electrolyte and Acid-Base Syndromes. Fifth edition. BY E. GOLDBERGER. Philadelphia, Lea and Febiger, 1975. Pages: 604. Price: \$12.00.

This is not a text for anyone desiring a comprehensive presentation of water and electrolyte disorders. There is little attempt to present in any organized way the interrelated world of pulmonary, cardiac, vascular, interstitial, renal, endocrine or nervous system physiology and pathophysiology as it interacts in a continuum of water and electrolyte disturbances. Rather, somewhat superficial and not always accurate sketches of a multitude of isolated syndromes are presented. There is little here either for the serious student of physiology or for the practitioner seeking help with a perplexing problem.

Nor is this a particularly enlightening treatise on acid-base disorders. After an excellent brief discussion of the basic principles of acid-base chemistry and physiology, the author confounds the reader with no fewer than eight indices to be used in the assessment of an acid-base disturbance (pH , P_{CO_2} , CO_2 content, CO_2 capacity, actual bicarbonate, standard bicarbonate, base excess, and