BOOK REVIEWS

A CLINICAL MANUAL OF NUCLEAR MEDICINE. J.M. Walker, D. Margouleff, Eds. Norwalk, CT, Appleton-Century-Crofts, 1983, 300 pp, $22.50

This small, compact, soft-bound book, part of the series of the publishers' *Clinical Manuals*, is attractive in appearance and content. The manual does not attempt to cover all phases of nuclear medicine, but rather focuses on the nuclear imaging studies in common use. Many scholarly works lose their readers in a mine of minutiae and rare tidbits.

At the beginning of each chapter, there is a tabular display of the agent used for each study. This feature summarizes the gamma emission energies, the half-life, and the radiation dose to the patient. In general, the photographs are excellent, although a few are too dark. Surprisingly, little reference is made to other comparable or competitive imaging modalities. There is no significant mention of radioassays, thyroid therapy, or the conversion from non-SI units to SI units. I found that most of my own observations and philosophy regarding nuclear medicine are reflected in this text. There are a few points I could question, e.g., the statement that the decreased tracer uptake in colloidal liver images, which results from radiation therapy, is usually transient. It is striking, however, how much more of a consensus exists in the interpretation and meaning of studies as compared with the works of earlier years.

There is an important advantage of a simple, straightforward book such as this—it tends to emphasize the well-established truths and the common diseases. The work is conservative and classic in mode of presentation and is suitable for a wide range of readers who have an interest in nuclear medicine. It can be profitably read or used as a reference by medical students, hospital housestaff, and practitioners. The editors and their associates are to be commended for their work.

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MANUAL OF NUCLEAR MEDICINE PROCEDURES (4th Edition). J.E. Carey, Jr., R.C. Kline, J.W. Keyes, Jr. Boca Raton, FL, CRC Press, 1983, pp 231, $39.50 U.S./$45.00 Foreign

The fourth edition of the CRC *Manual of Nuclear Medicine Procedures* continues in the tradition of previous editions by providing a well-organized, general, technical manual for the clinical nuclear medicine laboratory. It covers all of the common nuclear medicine procedures as well as most of the less frequently requested studies. The editorship has been expanded to include Drs. Carey and Kline in addition to Dr. Keyes, who edited the 3rd edition. The list of contributing authors has been expanded from ten to 21.

Although the format is identical to that of previous editions, significant modifications have been made, which, as stated in the introduction, reflect the changing character of nuclear medicine. Many new procedures have been added, e.g., bone densitometry, lower gastrointestinal bleeding, diuretic renography, and indium leukocyte imaging. A few procedures have been appropriately eliminated, including those involving pancreas and placenta scanning. The chapter on hepatobiliary imaging has been totally revised. The section entitled "Cardiac Procedures" has been rearranged into a more practical format, and the vascular procedures have been moved to a separate section.

The in vitro procedures section, not surprisingly, has changed only slightly from that in the third edition. Quality control related to the rectilinear scanner is phased out, and a new chapter, "Computer-Based Imaging System Quality Control and Prevention Maintenance," has been added. The final part of the book is similar to the third edition—it contains practical guides to various problems relevant to the operation of a nuclear medicine laboratory, e.g., emergency procedures for radioactive spills, radioactive waste disposal, combined studies, etc.

Overall, the book continues to be right on the mark in accomplishing its intended goal of providing a useful working reference for the clinical nuclear medicine laboratory. Noted deficiencies include a lack of references for specific procedures and the absence of a discussion of quality control for patient dose calibrators and ^{99}Mo-^{99m}Tc generator systems. These deficiencies are far outweighed by the positive features of the book, and I would recommend that it be included in every clinical nuclear medicine laboratory library.

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RECENT ADVANCES IN NUCLEAR MEDICINE (Volume 6). J.H. Lawrence, H.S. Winchell, Eds. New York, NY, Grune & Stratton, 1983, 210 pp, $49.50

This is the sixth volume of a series initiated and edited continuously by John Lawrence since 1948. This volume contains individually authored articles covering a wide variety of topics ranging from erythropoietin radioimmunoassay to pediatric nuclear medicine.

"Advances in Radionuclide Therapy" discusses the use of I-131 for hyperthyroidism and thyroid carcinoma, and of P-32 for polycythemia vera, ovarian and prostate carcinoma, and malignant effusions. The Y-90 treatment of inflammatory joint disease and craniopharyngiomas is also highlighted. A discussion of the treatment of metastatic adrenergic tumors with MIBG and the current status of monoclonal antibodies conclude the review. This chapter varies considerably in depth, and the interested reader desiring more detail will need to search elsewhere in several instances. "Radionuclides in the Diagnosis of Adrenergic Tumors" is a well-written review of the origin, function, clinical features, and diagnosis of pheochromocytomas, with emphasis on the use of MIBG. "The Functional Characterization of the Adrenal Cortex by Quantitative Scintigraphy," describes in convincing fashion the mechanism by which NP-59 uptake can be isolated within the cortex's functional zones, and that NP-59's activity reflects each zone's functional status. The illustrations are well integrated with the text. "Radionuclide Evaluation of Renal Disease" details the radiopharmaceuticals available and their clinical applications in this area. The comparison of nuclear

techniques with radiologic procedures in given situations is informative, and the illustrations are instructive and well chosen. This article alone justifies the purchase of the book. "The Radioimmunoassay of Erythropoietin" reviews the history of the development of this in vitro test and provides an excellent summary of the RIA principles. A more detailed description of its clinical application would have been worthwhile. "Pediatric Nuclear Medicine" covers the nuclear medicine approach to the pediatric patient. A useful chart giving the whole-body absorbed radiation doses from common nuclear medicine and radiological studies at different ages is included. Although this article is somewhat superficial, considering the scope of the subject, it is extensively referenced. Several important points on tailoring the study to the pediatric patient are made, and clinical applications are nicely spelled out. "Detection of Malignancies with Radionuclides," the final chapter, discusses the current and possible future uses of radiopharmaceuticals for tumor detection. The stepwise presentation is informative and readable detailing factors involved in positive uptake, types of radiopharmaceuticals, and potential developments.

This volume is a worthy successor to the others of this series. All the articles are readable, and much useful information can be gleaned from the topics covered. The book is worthy of being in the library of any nuclear medicine specialist, especially if he or she is interested in renal and/or adrenal disease.

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CLINICAL ULTRASOUND REVIEWS, Volume 3. F. Winsberg, J. Stewart, Eds. New York, John Wiley and Sons, 1983, 388 pp, $75.00

The third volume of the *Reviews* maintains the quality established by its predecessors. The abstracts are well written and include sufficient detail to allow thorough understanding of the papers; the liberal reproduction of charts from the original papers is valuable; and the quality of the sonogram reproductions is excellent. Grouping of the abstracts by organ system maintains continuity and enables the reader to review a given topic quickly and easily.

The inclusion of occasional esoteric case reports, although perhaps not absolutely necessary, does not burden the volume with excessive size. A few sonogram illustrations appear without labels alluded to in the legend. The editorial comments continue to be extremely incisive and valuable and demonstrate the editors' wide range of knowledge and experience extending to and including the physics and instrumentation of ultrasound.

In short, *Clinical Ultrasound Reviews* is presented with consistently high quality. For those physicians involved in ultrasound, it will serve as an excellent review source, complement the current literature, and provide a superb survey of the important work in the field. To those practitioners and scientists not primarily working with ultrasound, it will be a valuable reference. This is an excellent book, highly recommended.

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ATLAS OF 2-DIMENSIONAL ECHOCARDIOGRAPHY. A. Palacio. New York, NY, Yorke Medical Books, 1983, 197 pp, $69.00

Available atlases on two-dimensional echocardiography usually provide extensive illustrations as examples. Palacio, in this book, augments his illustrations by informative drawings and schematics designed to simplify and clarify echo anatomy, a laudable and useful advantage for this text. Some of the illustrations, however, are inconsistent and confusing because they are presented in reverse format from the usual or conventional orientation for echocardiography. Although the illustrations on transducer positioning are instructive and easy to understand, the transducer described is an outdated model, and the images presented do not appear to be as good as those from the state-of-the-art scanners. The language and terminology is generally straightforward and easily understood except that the use of Greek words such as proto, meso, and tele are difficult for nonsophisticated readers and are not widely accepted ECHO terms.

The chapter on mitral stenosis is particularly good and includes worthwhile illustrations of the abnormal valve and its complications. In the chapter on rheumatic mitral regurgitation, the criteria described for this diagnosis are probably not generally accepted and are too specific. Throughout the book the bases for diagnoses tend to be overly simplistic without qualification, limitations, or alternative differential diagnoses being provided. Information regarding pulmonary and tricuspid valves and analysis of left ventricular function is limited. On the other hand, illustrations of pericardial effusion and description of the fibrous pericarditis are well done.

The section on congenital diseases is quite limited, with emphasis on contrast studies. The several illustrations of intracardiac shunts are not adequate because the diagnosis is not clear, and there are no angiographic or pathological correlations or confirmations. The review of cardiomyopathies is rather short with a too-brief review of the many variations on hypertrophic cardiomyopathy and asymmetric hypertrophy. Future editions would be strengthened by updating the chapter on technology and equipment as well as by expanding some of the chapters to adequately cover the complex subject matter.

This book contains less information than expected from an atlas, but it is simple, reasonably well edited, and moderately priced. It should be instructive and useful to beginners in two-dimensional echocardiography who are not preoccupied with advanced or sophisticated state-of-the-art procedures.

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NONINVASIVE METHODS IN ATHEROSCLEROSIS RESEARCH (Atherosclerosis Reviews, Vol. 10). R.J. Hegyeli, Ed. New York, NY, Raven Press, 1983, 214 pp, $39.50

One of the most difficult problems in atherosclerosis research, and an even more difficult one in clinical care of patients with atherosclerosis, is the detection and quantification of arterial wall disease in living subjects—animals or man—as opposed to simply the detection of stenosis. This slim book contains the papers on the subject presented at a joint United States-Italy symposium held in Bethesda, Maryland, in November 1981, and many of the leaders in noninvasive diagnosis of vascular disease in both countries were contributors. The introductory chapters give a short overview of the pathology of atherosclerosis and a review of the major methods of noninvasive assessment of the disease. The body of the book is comprised of chapters on specific methods and the results obtained, or, alternatively, overviews of emerging methods, such as nuclear magnetic resonance (NMR) and positron emission tomography (PET). Finally, a short section on validation of noninvasive techniques is appended.

The book has many of the advantages and disadvantages of symposia volumes. On the positive side, the initial overviews and the descriptions of emerging methodology are lucid presentations, which place the fields in question in perspective for the reader with far less effort than would be required to read the primary literature. Sufficient references are provided for those who wish more comprehensive information. On the negative side, however, the extent of coverage, even of important present methods is uneven, and the description of emerging methods, is inadequate. For instance,