

CORRELATIONS IN DIAGNOSTIC IMAGING, D. Bruce Sodee (ed), New York, Appleton-Century-Crofts, 1979, 165 pp, \$19.50.

As outlined in the editor's preface to this book, the growth of noninvasive diagnostic imaging techniques has led to considerable confusion about the proper utilization of the various imaging modalities. Additionally, the cost effectiveness of these modalities is challenged by a number of agencies outside the field of medicine. It is the purpose of this particular book to put into perspective the comparative diagnostic imaging modalities—indeed a massive undertaking. For the last two years, our university has run post-graduate courses with just this aim in mind, and unfortunately, clear-cut conclusions in many areas are not drawn easily.

The issues of cost effectiveness are even more difficult to clarify. I read with great promise the sections of the text on financial considerations. The chapter entitled "Commercial Aspects of Diagnostic Imaging" is beautifully done. Unfortunately, it makes no reference to nuclear medicine, and, in fact, it appears to be as a cost justification of transmission computed tomography (TCT). There is no discussion of the relative roles of nuclear medicine and TCT. Indeed, the financial aspects of nuclear medicine and cost-benefit ratios were not dealt with in any portion of the financial section of the text.

When one progresses from the introductory sections to the clinical sections, where correlations should appear, they are made predominantly by having the chapters on each area placed together. In the "Brain Imaging" section some disconcerting comparisons are made. The technical quality of the images is poor, and the technique described is out of date. Even the data on the accuracy of TCT scanning are well over two years old. Certainly, a fair comparison of TCT and radionuclide studies of the head would require that current state of the art technology for both systems be used. Such studies at our institution over a considerable period of time have demonstrated the superiority of TCT scanning for the diagnosis of ventricular abnormalities, primary brain tumors, and acute hemorrhagic lesions. By the same token, we have been able to demonstrate that the isotope study does *at least as well as* the TCT in the diagnosis of arteriovenous malformation, cerebral vascular accidents, and infection. These conclusions differ considerably from those presented in this text.

The section on cerebrospinal fluid (CSF) imaging is well done and represents an excellent review of the status of this procedure for both TCT and nuclear medicine. Also, the material on gated cardiac imaging and myocardial perfusion is well presented. At the present time, however, this material represents a significant portion of many nuclear medicine practices, and one would have expected more extensive treatment of nuclear cardiology from these very knowledgeable authors. Unfortunately, no correlative data are presented to compare the available nuclear medicine techniques with those of diagnostic ultrasound or real-time scan-

ning of the heart. Such information would have been highly desirable.

One of the best "comparative" sections of the book is that on abdominal imaging techniques, where the advantages and disadvantages of isotopic studies, transmission computed tomography, and gray scale ultrasound are well discussed, and an attempt at a rational approach to imaging the liver is made.

In summary the text is a collection of talks given by very talented and knowledgeable individuals on their subspecialty areas. Only occasionally is true correlative information presented to enable the reader to make a valid decision concerning the various diagnostic modalities. Unfortunately, some of the clinical data presented is technically inadequate or out of date.

Although the editors and authors are to be commended for their efforts to produce a text to correlate the various noninvasive imaging modalities, they have not accomplished this goal because of the great difficulty of successfully completing such a task in an era of rapidly changing technology. The information in this text is available in almost the identical formats in numerous journal articles and other symposia. Had the cost analysis covered the entire field to include nuclear medicine, the book might well have been a worthwhile contribution to the field. I would estimate, however, that only about 25% of the material is related to nuclear medicine. The preference for TCT scanning over other modalities appears obvious. Certainly our experience with body TCT scanning has demonstrated it to be exceedingly useful but with a number of limitations not discussed in this book. Therefore, from the nuclear medicine practitioner's point of view, it leaves a great deal to be desired. The strong points of nuclear medicine, i.e., physiologic measurements, are not stressed. Instead, nuclear medicine is compared in an anatomic imaging mode with systems that we concede have a far better anatomic imaging ability. There is little discussion of the strength of nuclear medicine—the ability to measure organ function—something that the comparative modalities do not do well.

Unfortunately, the publication of such a text that may be read by a number of part-time practitioners of nuclear medicine may discourage them from upgrading their practice standards by indicating that nuclear medicine is less important than transmission computed tomography and/or ultrasound. On the contrary, however, nuclear medicine is growing rapidly again, and the numbers of new installations of TCT scanners are decreasing. As with every new toy, after one has played with it initially, its position becomes established, and nuclear medicine has a firm niche in diagnostic imaging. One would hope that succeeding texts will represent more accurately the relationship between these imaging modalities.

ROBERT E. HENKIN
Loyola University
Maywood, Illinois

BOOKS RECEIVED

Genitourinary Ultrasonography Volume 2. Clinics in Diagnostic Ultrasound. Arthur T. Rosenfeld, Ed. 259pp. illustrated. Churchill Livingstone. 1979 \$19.50

Tracer Kinetic Methods in Medical Physiology Nielsen A. Lassen and William Perl. 180 pp. illustrated. Raven Press. 1979 \$22.00

Computed Tomography of the Body Vol. 13 In Advanced Exercises in Diagnostic Radiology Series Helen C. Redman and Allan E. Fisch, Eds. 263 pp. illustrated. W. B. Saunders Co. 1979 U.S. \$15.00. Canada \$18.00

Mathematics for Technologists in Radiology Nuclear Medicine and Radiation Therapy Stefano S. Stefani and Lincoln B. Hubbard, Eds. 240 pp. illustrated. C. V. Mosby Co. 1979 \$10.95

Textbook of Nuclear Medicine Technology Paul J. Early, Muhammad Abdel Razzak, and D. Bruce Sodee. 691 pp. illustrated. C. V. Mosby Co. 1979 \$26.95

Cardiovascular Nuclear Medicine Dr. H. William Strauss and Dr. Bertram Pitt, Eds. 429 pp. illustrated. C. V. Mosby Co. 1979 \$47.50