

**NUCLEAR CARDIOLOGY: PRINCIPLES AND METHODS.** A. Serafini, A. Gilson, and W. Smoak. New York, Plenum Medical Book Co., 1977, 249 pp, \$22.50.

In a rapidly expanding field such as nuclear cardiology, it is difficult if not impossible, for any textbook to be current. Nevertheless, Dr. Serafini and his colleagues have assembled a number of critical reviews by accepted authorities. A wide spectrum of current nuclear cardiology is covered, including shunt detection, myocardial imaging with radioactive microspheres, xenon-133, potassium-43, thallium-201, technetium-99m pyrophosphate, and evaluation of ventricular function.

The chapter by Hamilton and Kennedy on "Current Methods of Assessing Ventricular Function" is a brief but good introduction for those interested in this most important problem. "First pass" techniques for the measurement of ventricular function are well covered by Ashburn et al. and Ellis et al. There is no information, however, provided on the newer multiple-gated acquisition techniques for evaluating ventricular function and regional myocardial wall motion at equilibrium. For the evaluation of left-to-right shunts and ejection fraction, the early work of the Miami group (Kenny et al.) using  $^{14}\text{CO}_2$  holds great promise (for those centers fortunate enough to have a cyclotron close at hand). Other chapters, such as the one by Janowitz et al. on myocardial imaging with thallium-201, provide a brief but adequate introduction to the subject. This book can be recommended to those students and practitioners wishing an introduction to this exciting new area.

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**RADIONUCLIDE STUDIES OF THE SPLEEN.** Richard P. Spencer and Howard A. Pearson. Cleveland, Ohio, CRC Press, 1975, 209 pp, \$36.95.

The authors have prepared a functionally oriented text on the radionuclidic study of the spleen, with a heavy emphasis on how splenic function may be demonstrated by spleen scanning. Virtually every hematologic or morphologic abnormality of the spleen likely to be encountered is discussed. The book properly emphasizes that a spleen scan really examines a portion of the reticuloendothelial system, and that the scan appearance of the spleen must be interpreted in light of additional clinical information.

Some interesting historical perspectives are presented in the first of the 16 chapters. Chapter 2 presents an excessively long and detailed discussion of the many and varied radionuclidic studies of spleen function and morphology. The authors' stated aim is to emphasize "the techniques of hematology and nuclear medicine which have been brought to bear on this organ." This they have done. However, after this detailed discussion of the many radioisotopic approaches available, they conclude that the proper evaluation of splenic disorders includes an ordinary spleen scan. Their list of ten indications for spleen scanning begins with the evaluation of trauma and left upper quadrant masses, and concisely summarizes those conditions in which spleen scanning may be expected to be of benefit in patient management. The chapters are generally informative, and the chapters on "Prenatal and Postnatal Development of the

Spleen" and "The Splenic Vascular System and Portal Hypertension" are excellent. The space allotted to the clinically most important splenic disorders is relatively brief. Chapter 12, for example, covers "Cysts, Abscesses, Metastatic Disease, Infarcts, and Trauma" in 11 pages.

The book succeeds in its stated goal of providing a functional discussion of splenic disorders. It suffers somewhat from a relative paucity of scans to illustrate the functional points made in the text. The book would benefit from more illustrations of normal spleen scans, variations of normal, and examples of splenic trauma. The chapters are well written and are followed by extraordinarily complete lists of references relevant to the material discussed, both basic and clinical science. Splenic disorders are related to spleen scanning, but this is not the primary purpose of the book. It should be of interest to any serious student of nuclear medicine or hematology.

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**BIOLOGICAL EFFECTS OF NEUTRON IRRADIATION.** Proceedings Series, STI/PUB/352. Vienna, International Atomic Energy Agency, 1974, \$22.00.

This publication emanates from a symposium on the radiobiology of neutrons held at Neuherberg in October 1973 and follows the first such symposium held at Brookhaven National Laboratory in 1963 (Biological Effects of Neutron and Proton Irradiations, Proceedings Series STI/PUB/80). During the ten intervening years, interest in bioeffects of neutrons has increased markedly, and the current proceedings provide a valuable up-to-date sourcebook on a variety of subjects related to neutron exposures.

The contents are divided into five broad categories: neutron sources; spectrometry and dosimetry; neutron effects at the subcellular and cellular levels; neutron effects on multicellular systems; use of neutrons in plant breeding; and other practical implications of neutron exposures such as cancer therapy and risk assessment. Thus, the symposium offered an opportunity for a survey of current neutron sources and methods of neutron spectrometry and dosimetry as well as a review of the current knowledge of bioeffects of neutrons at different levels of biologic organization from the subcellular to the organismic. In the last session, one paper dealt with some fundamental and practical aspects of clinical neutron radiotherapy, and the final paper dealt with the genetic effects of neutrons in mammals and discussed their implications for assessing neutron exposure risks in humans.

In all there are 35 papers, most of which are followed by brief discussions; 31 are in English, four in French. A list of authors and their affiliations at the time of nomination is included. Finally, authors are indexed but literature references are not.

The editors' desire for speedy publication resulted in the use of composition typing and photo-offset lithography. The inherent limitations of such methods, however, do not detract from the value of this volume as a reference source.

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