

## CARDIAC NUCLEAR MEDICINE.

*M.C. Gerson, Ed. New York, McGraw Hill Book Company, 1987, 509 pp, \$65.00*

This is an excellent book. In his preface Dr. Gerson states that this book should "meet the needs of physicians at an advanced level of training as well as the needs of practicing physicians who order or perform cardiac nuclear medicine procedures." The book certainly meets most of the needs of physicians who perform cardiac nuclear medicine studies. While it is probably more than the average user of nuclear medicine studies really wants to know, it is written and organized in a manner that is understandable to any of its targeted readers.

The text is 484 pages long and includes an adequate index with good quality construction and printing. The information is up-to-date and the authors are to be especially complimented on the exceptionally clear and pertinent illustrations in the early chapters. After chapters on general considerations of thallium, first pass, and equilibrium scanning, the next chapters deal with specialized aspects of cardiac imaging such as left ventricular pressure/volume relationships, right ventricular and diastolic function, alternatives to exercise stress, and pyrophosphate scanning. The editor's background as a cardiologist is evident in many of these chapters, especially Chapters 13-16 in which the radionuclide options for specific clinical problems are presented. Chapter 15, written by Dr. Gerson, on test selection in chronic coronary artery disease would be useful as a monograph for internists, general practitioners, cardiologists, and nuclear medicine physicians. The final five chapters deal with clinical applications of radionuclide techniques which are generally in less widespread use such as evaluation of cardiomyopathies and trauma, but these are well written as well.

My only reservations about recommending this book for trainees or practitioners in nuclear medicine or cardiology is the relative lack of instruction in basic instrumentation and physics and the absence of chapters on noncardiac vascular radionuclide applications. The editor, of course, makes clear from his title that these items are not to be a part of the book, but I believe that they would be of use to the reader. Positron imaging and isonitrile compounds are covered only briefly, but are not generally available either. In summary, the many strong points of this volume far outweigh its minor deficiencies, and it should be part of all private and institutional nuclear medicine libraries.

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## ADVANCES IN CLINICAL CARDIOLOGY, VOL. III: REGIONAL MYOCARDIAL METABOLISM BY POSITRON TOMOGRAPHY.

*H.R. Schelbert, J.R. Neely, M.E. Phelps, H.W. Heiss, Eds.  
New Jersey, Foundation for Advances in Clinical Medicine  
Inc., 1987, 343 pp, \$130.00*

Numerous new therapeutic advances have been made in clinical cardiology. The availability of these new interventions have created the practical need to better understand myocardial metabolism. Positron emission tomography of the heart has great promise to fulfill this need; therefore, there is increasing interest in using this tool clinically. It is very likely that the first clinical applications of PET will be to study the metabolic processes of the heart. Given this background, textbooks about PET applications, particularly cardiac applications are needed.

This textbook is an expanded version of presentations that were originally given at the Clinical Cardiology International Symposium on Regional Myocardial Metabolism by Positron Emission Tomography held in Santa Barbara, California from May 20-23, 1984. The book is divided into six major sections with each section having several chapters. The first section (45 pages), entitled "Introduction", addresses physiological, biochemical, and physical basis of PET in four short chapters. The second section (105 pages) is entitled "Assessment of Myocardial Substrate Metabolism" and includes subsections on glucose, fatty acid, and amino acid metabolism. Also included in this section is the assessment of myocardial blood flow and oxygen consumption. The third major section (18 pages) of the book consists of one chapter about cardiac receptors. The fourth section (58 pages) deals with "Substrate interactions in the normal heart and myocardial ischemia". The fifth section (75 pages) addresses "Myocardial infarction and reperfusion" and the final section (15 pages) deals with cardiomyopathies.

Despite the fact that this book is paperback and resulted from a proceedings, the quality of the typesetting and illustrations is high. Unfortunately the book has numerous flaws. First, page allotment was based on what was available from the proceedings as opposed to what one might include in a textbook organized from a logical outline. Second, the audience for this text is unclear. The biochemists are writing for biochemists, the physiologists are writing for physiologists and the physicists are writing for physicists. This makes the book difficult for a single person to read from cover to cover. Third, the usual advantage of proceedings derived textbooks is that they have short publication time and therefore they include timely material. This text is not exceptionally up-to-date. Fourth, the quality and content of the chapters are uneven. Some chapters address clinical issues and others address basic science issues. It is difficult for the reader to make these rapid transitions from one section to the next. Finally, the book is not very well referenced. Some chapters have no references and the chapters that do have references only refer to work up to and including 1984, the date of the symposium. The titles of the references are not included in the citations.

Because of its cost and deficiencies, I would not recommend this book as an introductory text on cardiac positron emission tomography nor would I recommend it as a reference text in a general nuclear medicine library. Despite its cost, this text deserves consideration from people actively working in the area of positron emission tomography.

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