rios in which radioisotope imaging is most useful and commonly used, such as occult gastrointestinal hemorrhage or testicular torsion.

There is, without question, a large body of information presented in this book. However, most of the information is presented as a large number of thumbnail sketches of disease processes. One feels as though a large number of disease states are simply named and described to the reader. In fact, much of the actual practice of radiology consists of recognizing a radiologic finding and then assigning a weighted differential diagnosis. There is a surprising lack of discussion of radiologic findings in this book. Because of this basic flaw, very few of the parts of this book could come close to rivaling any standard basic textbook in the corresponding field of radiology. On the other hand, this book will prove most helpful as a reference book for those interested in looking up the radiologic findings of a specific disease process.

Although the editor intended to incorporate the most recent advances in radiologic imaging into the individual parts of the book, this has not, in fact, been done. Instead, they are basically reviewed at the end of the second volume. Thus, one does not achieve a true sense of the relative merits and limitations of each imaging modality which, after all, is of great importance to the radiologist. In addition, the bibliographies at the end of each chapter are limited in length and, insofar as most of the references are earlier than 1984, they are of limited utility.

The book, therefore, suffers from a number of significant limitations. However, since this book presents such a broad range of information, it may be of value as a reference book for both radiologists and nonradiologists.

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Pharmaceuticals in Medical Imaging: Radiologic Contrast Media, Radiopharmaceuticals, Enhancement Agents for Magnetic Resonance Imaging and Ultrasound
D. P. Swanson, H. M. Chilton, J. H. Thrall, Eds., Macmillan Publishing Company, New York, Toronto, London, 1989, 736 pp, $135.00

In this text, Drs. Swanson, Chilton, and Thrall have attempted to assemble the-state-of-the-art knowledge on contrast agents and radiopharmaceuticals used in medical imaging. The book is organized into three sections dealing with radiopaque contrast media (8 chapters), radiopharmaceuticals (11 chapters), and enhancement agents for magnetic resonance imaging and ultrasound (3 chapters). Additionally, appendices on units of radioactivity, methods for prevention of thyroid uptake of radioiodine, and drugs for the mitigation of internal radiocontamination have been provided.

Several authors have contributed to the section on radiocontrast agents. Chapter 1 is devoted to the chemistry, pharmacokinetics, physiologic effects, drug interaction, pharmaco-angiography, and clinical considerations in the utilization of angiographic contrast media. Also, an in-depth discussion of the interventional administration of vasoactive drugs for increasing diagnostic efficacy of angiographic procedures is included, which is useful and relevant. However, no reference has been made to recently reported clinical complications associated with nonionic contrast media, such as their thrombotic potential and nephrotoxicitiy in high risk patients. The following chapters (2–8) discuss thoroughly the practical aspects of contrast media usage in urography, computed tomography, myelography, gastrointestinal examination, cholecystography, cholangiography, arthrography, and prevention of contrast induced adverse reactions. Each chapter is concise and focuses on selecting contrast agents, dosage, patient preparation, contraindications, and precautions. The chapter on prevention of adverse reactions to contrast media has been treated fairly, although it does not offer new insight.

The major thrust of this book is, however, on radiopharmaceuticals. The subject matter has been covered exhaustively from fundamentals to diagnostic application in central nervous system, endocrine system, lung, cardiac, tumor, bone, and bone marrow imaging. The last two chapters discuss the therapeutic application of radiopharmaceuticals in thyroid and hematologic disorders. All chapters in this section are written authoritatively and draw their strength from an extensive clinical experience of each contributing author. The last section describes enhancement agents for MRI and ultrasound imaging. There is nothing unique about this presentation.

In the final analysis, this book has reasonably up to date information on pharmaceuticals in medical imaging. A large body of clinical and technical data is condensed in tables, figures, radiographs, scintigrams, and scintiphotos. References listed after each chapter are adequate. However, several landmark articles have been omitted. The index is well-arranged. In my opinion, this book is most helpful to radiologists, specialists in nuclear medicine, residents, and technologists. Those with research interest in diagnostic radiology or nuclear medicine may have to wait for yet another publication.

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Books Received

Edeiken's Roentgen Diagnosis of Diseases of Bone, Volumes 1 & 2. *J. Edeiken, Murray Dalinka, and David Karasick, Baltimore, Williams and Wilkins, Volume 1--1,084 pp, Volume 2--1,832 pp, 1990, $195.00.*

Two-Dimensional Echocardiography and Cardiac Doppler, Second Edition. *Jay N. Schapira, John G. Harold, eds, and Clain Beeder, Associate Editor, Baltimore, Williams and Wilkins, 1990, 670 pp, $99.50.*

Interventional Ultrasound. *John McGahan, ed, Baltimore, Williams and Wilkins, 1990, 283 pp, $59.50.*

Nonionizing Radiation Protection—Second Edition. *Michael J. Suess and Deirdre A. Benwell-Morison, eds, Vienna, World Health Organization, 1990, 346 pp, $340.00.*