

BOOK REVIEWS

NUCLEAR MEDICINE: FOCUS ON CLINICAL DIAGNOSIS. Richard P. Spencer, Flushing, New York, Medical Examination Publishing Company, Inc., 1977, 249 pp, illustrated. \$12.00.

This booklet arose from material proposed for a course entitled, "Nuclear Medicine for the Practicing Physician," and is designed as an introduction for the beginning resident, non-nuclear medicine physician, or the medical student with more than a casual interest in nuclear medicine. There are 12 chapters, most with appropriate subheadings, a useful table of contents, a satisfactory index, a glossary of terms, and a bibliography, all of which enhance the utility of this book. Illustrations and tables are generally adequate. Some reproductions of gamma camera images are of marginal quality but in general demonstrate the findings mentioned in the text. Unfortunately, only two paragraphs are devoted to the entire field of radioimmunoassay. One chapter contains "cookbook protocols," useful for those uninitiated in nuclear medicine to obtain some idea of the mechanics of radionuclide imaging.

Beginning radiology residents and medical students have found the book easy to read and a useful source to obtain a quick overview of non-in vitro nuclear medicine. This book provides basic current information at a modest price.

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CEREBRAL RADIONUCLIDE ANGIOGRAPHY. Frank H. DeLand. Philadelphia, W. B. Saunders Company, 1977. 309 pp. \$39.75.

Frank H. DeLand has been a pioneer in the development of cerebral radionuclide angiography. This text is a comprehensive presentation of this procedure from his vantage point. The book includes chapters on the milestones in cerebral circulation and vascular embryology, which set the ground work for the procedure. Particularly valuable chapters on normal and topographic vascular anatomy include color line drawings that demonstrate the vascular supply to the brain in cross section at various levels.

Dr. DeLand covers the technical aspects of the procedure but includes in depth only the vertex projection, which he strongly advocates. Future editions would be enhanced by presentations of the anterior and posterior projections, which other institutions employ more routinely.

Chapters on trauma, neoplasms, congenital diseases, and vascular problems outline the value of the cerebral angiogram in these clinical situations. There are excellent illustrative cases demonstrating the major diagnostic features in each type. A chapter on the computer applications concludes the text.

This work is well presented and lucid, with excellent illustrations. It is recommended for full-time nuclear medicine residents and clinical practitioners of the field.

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CLINICAL RADIOBIOLOGY. B. W. Duncan and A. H. W. Nias. Edinburgh, London, and New York, Churchill Livingstone, 1977. 226 pp. \$22.50.

In their preface, the authors state: "The material in this book is designed to cover the syllabus in radiobiology recommended by the Royal College of Radiologists and it has been written with a deliberately clinical bias. As a result, many of the more fundamental principles of radiobiology have received comparatively little attention in this book while many aspects of applied radiobiology of less scientific importance have been emphasized because they have direct relevance to clinical practice." ". . . the book is written primarily for the clinician who wishes to have some understanding of the basic biologic principles of radiotherapy . . ."

These excerpts summarize accurately this concise and well-written aperçu of clinical radiobiology. In fifteen chapters, the reader is briefed in the history of applied radiation biology and taken through the biophysical and biochemical effects produced by the energy exchange in the biologic target. Separate chapters discuss: Cell Cycle, Cell Survival Curves, Recovery from Radiation Damage, Early Response of Normal Tissues, Acute Radiation Syndromes, Response of Tumors, Late Effects on Normal Tissue, Late Genetic and Somatic Effects and Fractionation. The last two chapters deal with clinical applications and developments in radiotherapy. The emphasis is on the cellular basis of the various changes produced. The role of altered cell kinetics in developing therapy programs is presented.

A short bibliography appears at the end of each chapter, with nearly half the references British. The list of further reading texts is inadequate. The index is satisfactory for the text material, but there is little cross referencing or multiple headings. Ample figure and tabular documentation of the various radiobiologic principles is presented. The text discussion of the data shown in the figures, however, does not always adequately elaborate the brief figure captions.

There is a preoccupation with the role of the oxygen effect in determining cell response to irradiation. Therefore, the book does not present a fair-minded view of certain data. The qualified nature of the discussion indicates that the authors recognize the lack of proof regarding the oxygen question. Unfortunately, alternative interpretations are not attempted.

The theme of altered cell response is appropriate and timely; however, the book will serve best as an annotated syllabus for beginning residents or as a teaching outline. It falls short of being an introductory text because of the lack of background and supporting material. The inadequate bibliography and discussions preclude its use as a reference source or self-teacher.

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