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YEAR BOOK OF DIAGNOSTIC RADIOLOGY® 1990

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1990

The Year Book of DIAGNOSTIC RADIOLOGY®

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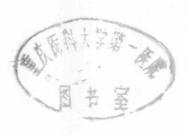
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Journals Represented

Year Book Medical Publishers subscribes to and surveys 850 U.S. and foreign medical and allied health journals. From these journals, the Editors select the articles to be abstracted. Journals represented in this Year Book are listed below.

Acta Radiologica

American Journal of Clinical Pathology

American Journal of Diseases of Children

American Journal of Gastroenterology

American Journal of Medicine

American Journal of Neuroradiology

American Journal of Obstetrics and Gynecology

American Journal of Pediatric Hematology/Oncology

American Journal of Roentgenology

American Journal of Sports Medicine

American Journal of Surgery

American Review of Respiratory Disease

Annales de Radiologie

Annals of Emergency Medicine

Annals of Internal Medicine

Annals of Surgery

Annals of Thoracic Surgery

Annals of Vascular Surgery

Archives of Disease in Childhood

Archives of Internal Medicine

Archives of Otolaryngology-Head and Neck Surgery

Archives of Surgery

Arthritis and Rheumatism

Australasian Radiology

British Journal of Radiology

British Journal of Surgery

British Journal of Urology British Medical Journal

Cancer

Chest

Circulation

Clinical Nuclear Medicine

Clinical Orthopaedics and Related Research

Clinical Pediatrics Clinical Radiology

CT-Journal of Computed Tomography

Digestive Diseases and Sciences

Diseases of the Colon and Rectum

European Journal of Radiology

European Urology

Fertility and Sterility

Gastroenterology

Gastrointestinal Radiology

Health Physics

Human Pathology

IEEE Transactions on Biomedical Engineering

International Journal of Cardiology

International Journal of Technological Assessment in Health Care

Investigative Radiology Iournal de Radiologie

Journal of Arthroplasty

Journal of Bone and Joint Surgery (American volume)

Journal of Bone and Joint Surgery (British volume)

Journal of Cardiovascular Surgery

Journal of Clinical Oncology

Journal of Clinical Ultrasound

Journal of Computer Assisted Tomography

Journal of Hand Surgery (American)

Journal of Hand Surgery (British)

Journal of Interventional Radiology

Journal of Neuropsychiatry Journal of Neurosurgery

Journal of Nuclear Medicine

Journal of Obstetrics and Gynaecology

Journal of Orthopaedic Research

Journal of Pediatric Surgery

Journal of Pediatrics

Journal of Rheumatology

Journal of the American College of Cardiology

Journal of the American Medical Association

Journal of the American Osteopathic Association

Journal of the Canadian Association of Radiologists

Journal of the National Cancer Institute

Journal of Thoracic and Cardiovascular Surgery

Journal of Thoracic Imaging

Journal of Trauma

Journal of Urology

Journal of Vascular Surgery

Laryngoscope

Magnetic Resonance in Medicine

Mayo Clinic Proceedings

Medicine

Nephron

Neuroradiology

Neurosurgery

New England Journal of Medicine

Obstetrics and Gynecology

Pediatric Radiology

Pediatrics

Physician and Sportsmedicine

Plastic and Reconstructive Surgery

Radiology

Scandinavian Journal of Rheumatology Seminars in Ultrasound Skeletal Radiology Spine Stroke Surgery Surgery, Gynecology and Obstetrics Surgical Pathology Thorax Urologic Radiology Urology

STANDARD ABBREVIATIONS

A large number of articles deal with computed tomography, diethylenetriaminepentaacetic acid, magnetic resonance imaging, positron emission tomography, and single photon emission tomography. These terms will not be spelled out in full each time the abbreviations appear in a new article. They are designated CT, DTPA, MRI (or MR), PET, and SPECT, respectively, throughout the book.

Publisher's Preface

With publication of the 1990 YEAR BOOK OF DIAGNOSTIC RADIOLOGY, the tenure of David G. Bragg, M.D., as Editor-in-Chief comes to an end. During Dr. Bragg's eight years of editorship, the volume's readers have been treated to perceptive commentary of the highest caliber and a stellar team of associate editors. Moreover, we at Year Book Medical Publishers have been treated to an enjoyable and rewarding association. We extend our deepest appreciation to Dr. Bragg for the service he has provided and for his unending support and enthusiasm for the YEAR BOOK. He will be missed by all of us here.

Introduction

The 1990 YEAR BOOK OF DIAGNOSTIC RADIOLOGY is a distillate of our review of more than 3,600 articles from nearly 850 medical publications that appeared in both American and foreign peer-reviewed journals. Although we again focused our efforts on the nontraditional radiologic journals and tried to broaden our coverage into clinical articles relevant to our field, the dominance of our major journals is clearly evident upon review of each of our sections. The organization is similar to the past years' efforts, and I am pleased to introduce the same group of associate editors that has graced these sections in the past.

Anne G. Osborn, M.D., once again begins this YEAR BOOK with her chapter, Neuroradiology. As she has just completed her tenure as President of the American Society of Neuroradiology and is now beginning a year as the Distinguished Scientist of the Armed Forces Institute of Pathology, her personal experiences have complemented each of the articles she has chosen to review. Her superb teaching and writing skills are self-evident and, to me, make the articles more meaningful and relevant, particularly when they are further complemented by relevant bibliographic

citations from her own reprint file.

Franklin J. Miller, Jr., M.D., has captured the excitement of cardiovascular and interventional radiology, the most rapidly progressing subspecialty of radiology, in my opinion. The capabilities of interventional radiology seem to expand by the day, particularly with biliary disease and vascular access to tumors and occluded arteries. Biliary lithotripsy has come more clearly into focus, revealing a rather narrow group of eligible patients but providing new opportunities for percutaneous gallbladder ablation, which Dr. Miller predicts will be reported within the year.

My section on the thorax is subdivided using the same format as in past years and includes mammography. Several clinical articles have been chosen to illustrate the body of knowledge we must be familiar with to play a more useful role in chest diagnosis such as the ones on adult respiratory distress syndrome, mediastinal fibrosis, and thymic changes in

disease.

William M. Thompson, M.D., has done a superb job of reviewing the abdomen, dividing it into 3 sections: the gastrointestinal tract, the urinary system, and reproductive organs. It is refreshing to see plain films and conventional barium studies included alongside our more complex imaging modalities.

As has always been the case, Dr. Theodore E. Keats' selections on the musculoskeletal system are always the first to reach my desk. He has a unique ability to harvest the new observations from the literature. He has done a remarkably consistent job of selecting articles from journals out of the mainstream that you probably would otherwise not have had a chance to see.

John A. Kirkpatrick, Jr., M.D., has again done a beautiful job with pediatric radiology, focusing on those articles of practical interest to the general radiologist who would not have time to review the clinical and radiologic contributions to the literature in this ever more complex subspecialty.

William R. Hendee, Ph.D., clearly has a unique section and the most challenging area to cover in the entire YEAR BOOK OF DIAGNOSTIC RADIOLOGY. This section was previously buried under the heading of "Medical Physics" and now carries the appropriate title: "Technical Developments and Quality Assurance." Please do not be misled by the title, as the dynamic range of articles included in Dr. Hendee's chapter will be of interest to every radiologist. His introduction sets in perspective the challenge facing the entire field of medicine, delving more specifically into the issues particular to radiology, including technical development, quality assurance, reimbursement, etc.

The 1990 YEAR BOOK OF DIAGNOSTIC RADIOLOGY will bring to an end my tenure as Editor, a very pleasant task that began with the 1983 edition. Now, with eight successive YEAR BOOK contributions completed, I felt it was time for new direction. I have thoroughly enjoyed the effort in compiling each YEAR BOOK, particularly my associations with the talented group of Associate Editors and especially the supporting cast of Year Book Medical Publishers, Inc. The remarkable individuals, including Daniel Doody, Nancy Gorham, Judy Plazyk, and previously, Carolyn Scoulas, to name a few, reflect the commitment and support provided by this organization. I will continue to be convinced that the YEAR BOOK OF DIAGNOSTIC RADIOLOGY is the best value published in our field today. I hope that you will continue to support this effort as I plan to do.

David G. Bragg, M.D.

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Introduction

Many of the articles selected for this year's review reflect the continued expanding applications of magnetic resonance imaging as a mature modality. As medium-sized (and even some small institutions and groups) acquire MR scanners, radiologists must develop technical know-how and interpretive skills to optimize the diagnostic process. Unfortunately, we are also confronted with socioeconomic issues that become increasingly more obtrusive; this issue includes articles that focus on medicolegal and economic concerns as well as the complications of societal problems such as substance abuse.

Common diseases are ever with us, so also included is the usual spectrum of descriptive articles on imaging of tumors, stroke, aneurysms and vascular malformations, and spine and cord disease. Ear, nose, and throat radiology is a growing segment of many radiology practices and so is well represented in this year's issue. We hope you find these selections informative, helpful, and stimulating. Good reading!

Anne G. Osborn, M.D.