

# Preface

During the past two decades, and even more so in the last five years, radiology has evolved at a tremendous pace, and imaging technology continues to make great advances into morphological, as well as functional, aspects of oncologic diseases. Developments in computed tomography (CT) have led to the introduction to ultra-fast, high-resolution single-source and dual-source multislice scanners. Positron emission tomography (PET) has stepped into the clinical limelight with the availability of vastly improved structural co-registration and overall improved diagnostic performance from recently developed PET-CT hybrid scanners. Magnetic resonance imaging (MRI) has become faster and more versatile with high magnetic strength systems, MR spectroscopy, diffusion weighted MRI, and flow mapping. Oncologic imaging guided interventional techniques such as radio frequency ablation, microwave and cryoablation procedures have also progressed immensely.

From an oncologic point of view, these developments have improved patient care. Today, the role of imaging extends beyond traditional detection, localization, characterization, staging, follow-up and treatment of patients with cancer. CT is currently being investigated as a screening tool for colon and lung cancer. MRI has emerged as a modality of choice for imaging many cancers including hepatic, adrenal and most musculoskeletal cancers. Hybrid PET-CT scanners provide combined morphologic and functional information for tumor detection, and assessment of early tumor response to treatment. The growing, dynamic collaboration between the radiologic and oncologic communities is important to foster to ensure cancer patients receive optimal care.

This book, "Imaging in Oncology," describes the current status of imaging techniques in oncology, with the help of specialized contributions from world-renowned oncologic imaging experts.



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