
Imaging of Bone Tumors and Tumor-Like Lesions: Techniques and Applications

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Berlin, Germany: Springer, 2009, 698 pages, \$219

There is a large variety of tumors and tumorlike lesions that can involve the skeleton. They present a bewildering spectrum of radiologic appearances that all too often can lead to misinterpretations resulting in suboptimal management of patients. Although primary malignancies are relatively rare, they often pose an intriguing diagnostic problem for radiologists, particularly as the pathology is frequently equally challenging. The radiologist has the benefit of seeing the bigger picture, being able to view the entire bone lesion in 2 or more planes and with different imaging techniques, thereby appreciating the gross pathology. The pathologist, in contrast, views biopsy material from a selected portion of the lesion that may or may not be representative of the lesion as a whole. The detection and characterization of bone tumors with imaging remain a big challenge for every radiologist. New concepts in surgical and medical treatments of bone tumors and tumorlike lesions require appropriate and focused answers to the specific questions asked by the referring physicians so that they can select the best therapeutic approach for the patient. As the understanding of the complex subject of bone tumors improves, there is a need for the continuous updating of radiologists, orthopedic surgeons, oncologists, and other professionals working in this area.

This comprehensive textbook is written by a large, international group of 57 collaborating authors who are also widely acknowledged for their specific expertise in the area of bone tumors. The book provides a detailed description of the imaging techniques and findings in patients with benign and malignant bone tumors and tumorlike lesions. The roles of imaging techniques in the diagnosis, staging, and assessment of therapeutic responses are also discussed in detail. There are 39 chapters in 4 parts. After an introductory chapter covering the epidemiology, classification, and pathology of bone tumors, the first part acquaints readers with the range of techniques available for imaging bone tumors. The 5 chapters in this part cover CT, MRI, nuclear

medicine, ultrasonography, and interventional techniques. The second part of the book gives an authoritative review of the role of these imaging techniques in detection, biopsy, surgical staging of primary tumor and metastatic disease, and assessment of therapeutic responses. The third and largest part of the book comprises 18 chapters dealing with the imaging features of each major tumor subtype, with separate chapters on recurrent, osteogenic, cartilaginous, fibrogenic, giant cell, Ewing, hematopoietic, angiomatous, notochordal, smooth muscle, lipogenic, cystic, metastatic, and radiation-induced tumors, as well as Paget disease and metabolic bone lesions. The final, fourth, part of the book reviews the imaging findings of bone tumors at particular anatomic sites such as the ribs and clavicle, scapula, spine and sacrum, pelvic bones, hand and wrist, and patella and foot. The final 2 chapters cover the important topic of compartmental anatomy and include potted biographies of those whose names over the past 150 y have become synonymous with bone tumors. Each chapter is written by experts in the field and begins with essential key points. There are 528 figures, which are illustrative and clear, and the 30 tables are concise and informative. The references at the end of each chapter are current, and the subject index is handy and useful.

This unique book will be of great help to musculoskeletal and general radiologists in their daily clinical practices. Orthopedic surgeons and oncologists also will find the book useful for guiding them in the therapeutic management of their patients. This book should also be placed in medical and radiology libraries as a reference for the evaluation of bone tumors and tumorlike lesions.

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