
Learning Imaging

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Learning Musculoskeletal Imaging

 Springer

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“To Manuel Sánchez Gálvez, my first
hero.”

RAMÓN RIBES

“To my wife *Cris* and my children
Cristina and *Eduard* for their love
and for accommodating the sacrifices of
personal time.”

JOAN C. VILANOVA

Preface

Musculoskeletal (MSK) radiology is a radiological subspecialty that has expanded its knowledge base and imaging capabilities with the advent of MRI, multi/detector CT, ultrasound, and PET. Prior to the advent of MRI, MSK radiologists used plain film X-rays and arthrograms as their primary tools. The subspecialty has progressed from primary imaging of osseous structures and indirect imaging of joint spaces, to direct imaging of soft tissue structures with direct visualization and fine definition of MSK structures.

A specialized MSK radiologist requires a sound knowledge of anatomy, pathophysiology, orthopedic surgical techniques, and advancements in imaging modalities. MSK imaging involves all aspects about anatomy, function, disease states, and aspects of interventional radiology appertaining to the MSK system including imaging in orthopedics, trauma, rheumatology, metabolic and endocrine diseases, as well as aspects of pediatrics, oncology, and sports imaging.

Subspecialty training in MSK radiology must ensure competence to obtain experience in the following techniques: plain radiography, ultrasonography, CT, MRI, nuclear medicine, bone densitometry, and fluoroscopic procedures including arthrography. MSK radiologists must be aware of the strengths and weaknesses of the different imaging methods in each pathological condition and choose the appropriate imaging technique and/or the appropriate sequence in the investigation of specific clinical problems.

A MSK radiologist should be prepared to assure an in-depth understanding of disease of the MSK system and understand the role of imaging in the diagnosis and treatment of MSK disease. Moreover, because of innovation and new medical imaging modalities, there are increasingly demanding requirements by clinical specialists. If radiologists do not or cannot keep up with increasing demands for MSK interpretations, clinicians will be forced to compete with radiologists in providing interpretations.

From the beginning of the subspecialty in the 1970s with the foundation of the International Skeletal Society, multiple multidisciplinary or dedicated skeletal radiology societies have been founded and organized from international or national societies.

We will try to expand the development of MSK radiology through complete prepared radiologists, in order to develop the ability to transmit the knowledge and assume the continuity and evolution of radiological diagnosis in the field of MSK radiology.

Córdoba, Spain
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