

Preface



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Guest Editor

In recent years, there have been tremendous advancements in cardiopulmonary CT imaging—no doubt the readership of *MRI Clinics of North America* is aware of these advances. Simultaneously, cardiothoracic MR imaging has made substantial strides and continues to grow at a rapid rate. Recent developments in MR imaging technology provide shorter imaging times and improved resolution, providing improved tissue characterization and enhanced diagnostic accuracy. These improvements complement the strides made in CT imaging technology, and the two modalities provide very powerful and complementary methods for the investigation of cardiopulmonary disease.

During the last few years, as CT and MR imaging has become more common and image quality have improved dramatically, increasing recognition of the power of these methods for the investigation of cardiac disease, in particular, has stimulated great interest for the radiology community as a whole. Somewhat paradoxically, this interest actually has served to narrow the gap between those who consider themselves primary “pulmonary imagers” and those who would consider themselves exclusively “cardiac imagers.” Radiologists are acknowledging that the anatomy and physiology of the cardiopulmonary system, while often addressed individually, should be considered as a whole, and the development of expertise in one anatomic area necessitates proficiency in the other. The common techniques that may be used with CT and MR imaging for the assessment of pulmonary and cardiovascular disease reinforces

that a firm understanding of the technology used to investigate the cardiovascular and pulmonary systems should be accompanied by a strong grasp of the anatomy and physiology of both systems, and the interdependence of the cardiopulmonary system should be recognized.

This addition of *MRI Clinics of North America* is a thoracic issue, but a significant component is devoted to cardiovascular imaging. As one peruses these articles, some common themes (particularly MR imaging techniques) will become obvious. Although some techniques will be more specific to the cardiovascular system and others will be aimed toward the respiratory system, commonalities exist nonetheless.

A quick review of the contributing author list shows that this issue benefits from prominent experts in cardiopulmonary imaging. The first portion of this issue focuses more on the cardiac side of cardiopulmonary imaging and then transitions to more pulmonary-focused articles, with one article devoted to pulmonary arterial imaging (certainly a topic of interest to even the most subspecialized cardiac and pulmonary imagers). The issue concludes with articles devoted to the role of MR imaging in the evaluation of pulmonary disease, pleural abnormalities, and thoracic inlet and chest wall disorders.

While this issue is substantial, it is by no means exhaustive. Many areas of study, including thoracic trauma, details of MR imaging evaluation of lung nodules, MR imaging evaluation of the diaphragm and thoracoabdominal junction, and so forth were not included in this issue, but they certainly remain

important considerations. There is no doubt such topics will be visited in future issues.

I express my gratitude to and sincerely thank the contributors of this thoracic focus issue of *MRI Clinics of North America*. I certainly found it to be a highly enlightening process to compile and edit this issue, and I am confident readers will find this issue to be a tremendous educational source for their practice.

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