



KSMRM Educational Course 1

교육세션 1-2

Heart MRI: Protocols, Pitfalls, and Technical Pearls

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Cardiac magnetic resonance imaging (CMR) has become a cornerstone in the evaluation of cardiovascular disease, providing high-resolution assessment of cardiac morphology, function, and tissue characterization. Current international guidelines consistently highlight its value in diagnosing cardiomyopathies, ischemic heart disease, and inflammatory disorders such as myocarditis. For radiologists and trainees, mastering the principles of CMR is essential, as proper acquisition and interpretation directly influence clinical decision-making.

This lecture, within the Clinical MRI Essentials session, will highlight fundamental CMR protocols while integrating evidence from recent clinical trials and consensus documents. We will focus on key CMR protocols—cine imaging, perfusion, and late gadolinium enhancement—and their evidence-based clinical applications. Attention will be paid to typical pitfalls—ranging from technical limitations in arrhythmic patients to challenges in distinguishing artifacts from true pathology—that may confound interpretation. Practical technical pearls will also be emphasized to help participants achieve reproducible, high-quality examinations.

Participants will gain an updated understanding of how CMR contributes to both patient management in contemporary cardiovascular medicine. The session aims to provide radiologists and trainees with the necessary perspective to apply CMR findings in a way that bridges daily clinical practice with evolving scientific evidence.

Keywords: Cardiac magnetic resonance, Imaging protocols, Pitfalls and artifacts, Clinical guidelines