SUMMARY

CMPs are a group of fairly rare diseases, but they are a frequent reason for cardiac MRI evaluation. CMPs are different in cause, clinical presentation, histologic features, and expected outcome; for these reasons, they must be diagnosed and studied with imaging techniques that warrant precise and reliable assessment of the many aspects of the disease, such as morphology, function, and tissue characterization of the damaged myocardium. Cardiac MRI fulfills all these requirements and may be considered the most important imaging technique for CMP.(47)

MRI has proven to be an important tool for the evaluation of patients suspected of having HCM because it can readily diagnose those with phenotypic expression of the disorder and can potentially identify the subset of patients at risk of sudden cardiac death.(46)

MRI can help to discriminate HCM from the differential diagnoses of other cardiomyopathies and cardiac disorders. (77)

MRI evaluation is also emerging as a critical tool to understand DCM pathophysiology and may contribute to identifying patients at particular risk for complications such as sudden cardiac death (e.g., within DCM subsets—those with or without areas of replacement fibrosis that may predispose to electrical instability and sudden cardiac death). (135)

CMR is useful in the differential diagnosis between restrictive cardiomyopathy and constrictive pericarditis.(99) Also, Cine images allow assessment of the altered diastolic function in restrictive cardiomyopathy. (47)

The capability of the MRI of detecting right ventricular enlargement, fatty infiltration, fibrosis, and wall motion abnormalities is useful in the diagnosis of ARVC. (130)