AC004

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

ADVANCED CARDIAC MRI AT NIZAMIYE HOSPITAL: LESSONS FROM A CASE SERIES IN CHALLENGING CARDIOVASCULAR DIAGNOSIS

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Background: Cardiovascular magnetic resonance (CMR) is a comprehensive non-invasive imaging modality that provides accurate assessment of cardiac morphology, ventricular function, myocardial tissue characterization, and fibrosis, particularly in diagnostically challenging cardiovascular conditions.

Objective: To demonstrate the clinical value of advanced cardiac MRI in complex cardiovascular cases evaluated at Nizamiye Hospital.

Methods: We present a case series of patients in whom clinical assessment, electrocardiography, echocardiography, and coronary imaging were inconclusive. Comprehensive CMR included cine imaging for ventricular function, T2-weighted imaging for myocardial edema when indicated, and late gadolinium enhancement (LGE) for myocardial tissue characterization and fibrosis assessment.

Findings were integrated with other imaging modalities. Results: CMR provided incremental diagnostic information by accurately defining ventricular function, identifying myocardial fibrosis, and distinguishing ischemic from non-ischemic myocardial disease through characteristic LGE patterns. In selected patients, fibrosis assessment contributed to prognostic evaluation, arrhythmic risk stratification, and therapeutic decision-making. Integration of CMR with echocardiography and coronary imaging improved diagnostic confidence and guided individualized patient management.

Conclusion: Advanced cardiac MRI is an essential component of multimodality cardiovascular imaging, improving diagnostic accuracy, risk stratification, and personalized management in complex cardiovascular disease

Keywords: Cardiac magnetic resonance; CMR; Late gadolinium enhancement; Myocardial fibrosis; Multimodality imaging.