

A young man who presented with acute typical chest pain: Role of cardiac MRI for definite diagnosis

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A 34-year-old man without underlying disease presented with acute retrosternal chest pain during study in the classroom. The pain persisted for 10 minutes and referred to his jaw and left arm. He was sent to the emergency department within 30 minutes and ECG 12 leads showed sinus tachycardia with diffuse ST elevation. ST elevation FAST TRACK was activated and coronary angiography revealed normal coronary arteries. Echocardiography at ward showed good LV systolic function without regional wall motion abnormality and no pericardial effusion. Cardiac biomarkers were elevated without rise and fall pattern. He was treated as acute pericarditis.

Cardiac MRI has been performed at two consecutive days and revealed thickening pericardium. Normal cardiac chambers size and wall thickness. Good LV and RV systolic function. Water-sensitive T2-weighted sequence clearly visible high-signal intensity at pericardium which indicating area of edema (Figure 1). Delayed enhancement imaging after 0.2 mmol/kg Gadolinium injection for 15 minutes showed enhancement of the pericardium (Figure 2). Myocardial delayed enhancement, epicardial pattern, were observed at mid inferolateral and anterolateral wall which pointing area of myocardial necrosis (Figure 3). This case demonstrates the role of CMR in accurately diagnosing acute pericarditis with myocardial involvement in a middle age patient who presenting with acute typical chest pain.

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Figure 1. High-signal intensity of the pericardium on T2-weighted imaging.

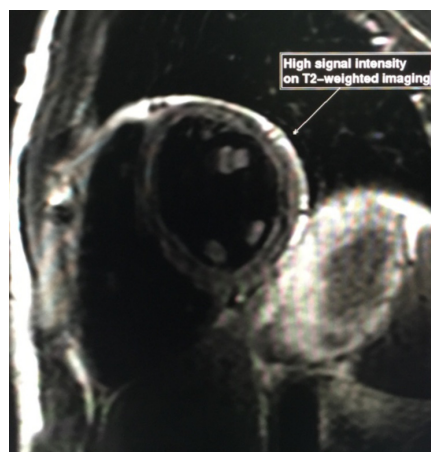


Figure 2. Enhancement of the pericardium following gadolinium administration.

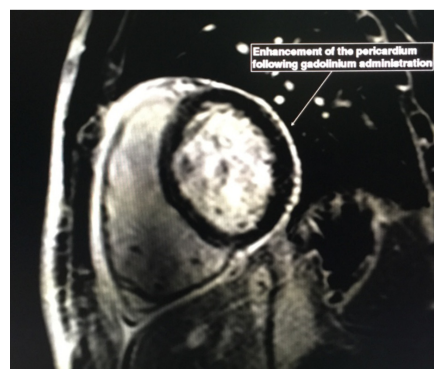


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