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Acute Myocarditis and Cardiac Magnetic Resonance Imaging

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A thirty-two-year-old female presented with acute myocarditis which was confirmed with Cardiac Magnetic Resonance Imaging (CMRI) where endomyocardial biopsy sampling was not feasible. The patient was managed initially with dual anti-platelet therapy and heparin; the patient was discharged home after four days on 75 mg aspirin.

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apical wall and inferior septum, with EF of 58% and on late enhancement images there was sub-epicardial uptake of gadolinium (Gad) in the mid to apical inferior wall and inferior septum, features supporting acute myocarditis, see figure 5 (A and B).

The patient was discharged on 4 July 2016 in a hemodynamically stable condition and daily 75 mg of aspirin. During follow-up, Parvo-B19 virus antibodies IgG was positive. Other viruses were negative including Coxsackie antibodies. The patient complained of palpitation and Holter was requested but did not show significant arrhythmias except for few ventricular ectopic beats. A small dose of beta blockers was initiated.

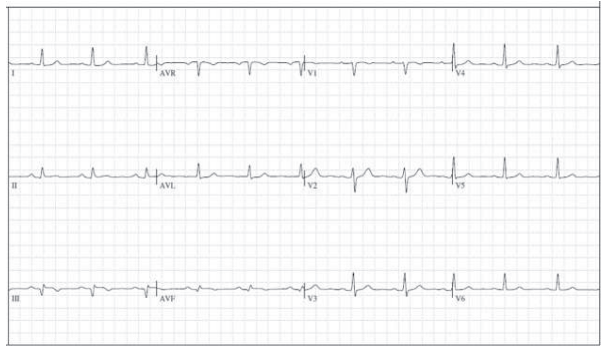

Figure 4: ECG on the Second Day of Admission

therefore, revealing the increased accumulation of gadolinium as bright regions[5]. In myocarditis, the reported sensitivity of this method is 100% with a specificity of 90%[5]. Delayed contrast enhancement was also observed in 44%-90% of patients with irreversible myocardial injuries[5,7].

Patients with active myocarditis might reveal focal signal increases typically localized in the subepicardial regions of the LV and through the ventricular wall. The LGE may be localized in the inferolateral and anteroseptal segments, but it might be multifocal or diffuse in distribution. The subendocardium is not involved in isolation, a distinguishing feature from ischemia-mediated injury[5].

Potential Conflicts of Interest: Yes.

Competing Interest: Yes.

Sponsorship: Yes.

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Ethical Approval: Approved by the Mohammed bin Khalifa bin Salman Al Khalifa Cardiac Center, Bahrain Defence Force Hospital, Bahrain.

REFERENCES