Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Spotlight on Special Topics

COVID 19 M-RNA VACCINE ASSOCIATED MYOCARDITIS: A REPORT ON SHORT TERM FOLLOW UP CARDIAC IMAGING AND CLINICAL OUTCOMES

Poster Contributions
For exact presentation time, refer to the online ACC.22 Program Planner at https://www.abstractsonline.com/pp8/#!/10461

Session Title: Spotlight on Special Topics Flatboard Poster Selections: COVID
Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

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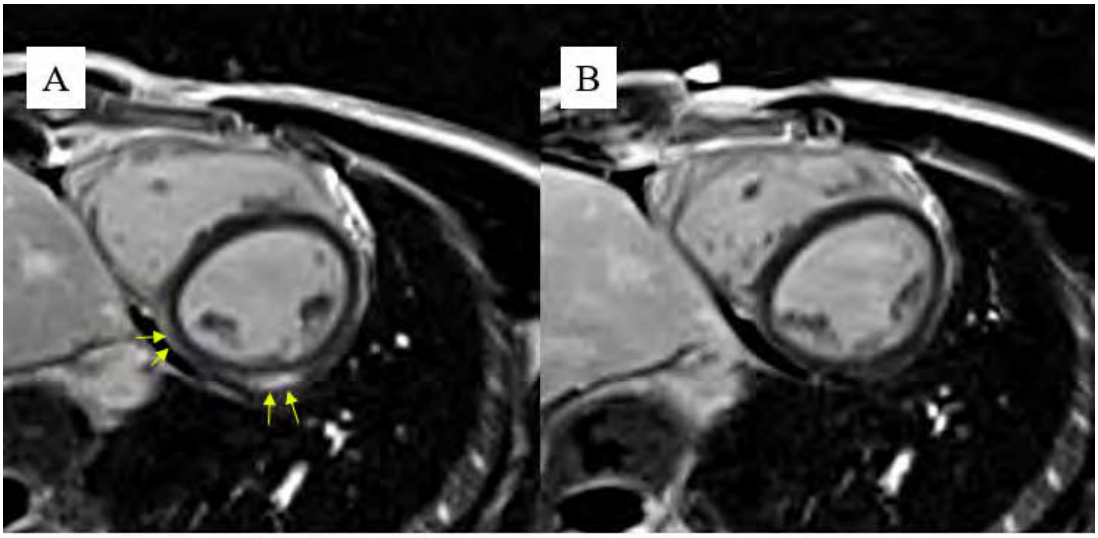
Background: Acute myocarditis after COVID-19 vaccination has been reported; however, follow-up data is lacking.

Methods: Single-center retrospective review of acute myocarditis after COVID-19 vaccination with approximately 4-6-month follow up.

Results: Six male patients with confirmed acute myocarditis 2-5 days after second dose of mRNA COVID-19 vaccine were identified. All patients presented with chest pain, elevated hs-troponin and elevated C-reactive protein. Reduced left ventricular ejection fraction (EF) was observed in 1/6 patients. Five patients underwent cardiac magnetic resonance (CMR) 2-5 days after vaccination. Cine, T1 and T2 mapping, and late gadolinium enhancement (LGE) images were obtained. Multi-focal subepicardial LGE was present in 4 patients and additional mid-myocardial LGE in 1 patient, with corresponding myocardial edema. All patients received anti-inflammatory drugs with resolution of symptoms on discharge (mean LOS= 3.5 days). 4 patients underwent follow-up CMR (mean= 113 days). Significant reduction in LGE was observed in all patients with improvement in EF, normalization of extracellular volume fraction and improvement in myocardial edema. There was no recurrence of chest pain or any other cardiac symptom. No reported adverse outcomes or cardiac dysrhythmias at short term follow-up.

Conclusion: Our results indicate good short-term prognosis in patients presenting with acute myocarditis after COVID-19 vaccination.



A) Phase Sensitive Inversion Recovery Sequence (PSIR) showing short Axis slice of the LV at the mid ventricular level. There is sub-epicardial late gadolinium enhancement (LGE) involving the inferior and inferolateral wall segments (yellow arrows) B) Follow up CMR (5-months from initial CMR) with PSIR sequence showing same short axis slice of the LV showing near resolution of LGE