



Multisystem Inflammatory Syndrome (MIS-C) As Cardiac Tamponade: Is It the Cause of Activation of Latent Tuberculosis?

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To the Editor: A 13-y-old girl presented with history of 7 d fever, chest pain, breathing difficulty, and multiple episodes of vomiting with one episode of syncope. There was a history of a family member who recovered from COVID one month back.

On examination patient had tachycardia, tachypnea, elevated JVP, muffled heart sounds, and was in compensated shock.

ECG revealed tachycardia with short complexes. Radiograph of the chest showed enlarged cardiac silhouette with normal lung fields. Echocardiography showed massive pericardial effusion, and 920 cc of serosanguinous fluid was removed.

Inflammatory markers were raised (elevated D-dimer and CRP) with positive COVID antibody titer (IgM and IgG). Pt managed with IV immunoglobulin, methyl prednisolone, and aspirin.

Pericardial fluid study was suggestive of tubercular in origin 151 cells with lymphocytic predominance, raised proteins (8 g/dL) with positive adenosine deaminase and CBNAAT showed MTB with rifampicin sensitivity. The patient discharged on antitubercular medications and oral steroids. Follow-up echo showed normal cardiac functions.

COVID-19 in children is usually mild or asymptomatic. Children account for 1%–5% of the diagnosed cases and have overall good prognosis [1]. Cardiac involvement is found in a high proportion of these patients, including ventricular dysfunction, coronary artery dilation or aneurysm, and arrhythmias [2]. Raymond et al. have reported a case of pediatric cardiac tamponade due to pericardial effusion;

however, the authors were uncertain about active COVID infection versus MIS-C [3].

The possibility of MIS-C was entertained as the patient was fulfilling all the criteria as per WHO. The presentation with tamponade was likely to be caused by the development of MIS-C in a dormant tubercular infection leading to flare up. There is no conclusive evidence yet to establish that COVID-19 can directly trigger an increase in tuberculosis, yet TB cases have indeed been going up and more data in this regard is the need of the hour.

Declarations

Conflict of Interest None.

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