

Covid-19-vaccine-pfizer-biontech

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Acute myopericarditis: 2 case reports

In a case report, 2 boys aged 16 and 17-year-old were described, who developed acute myopericarditis following COVID-19-Vaccine-Pfizer-BioNTech vaccine administration [*dosages and routes not stated*].

Case 1: The 16-year-old boy presented to the emergency department (ED) with chest pain 2 days after receiving second dose of COVID-19-Vaccine-Pfizer-BioNTech [Pfizer-BioNTech COVID-19] vaccine. He described chest pain as stabbing in nature, which was localised to the substernal region and worsened with respirations. He also reported experiencing episodes of emesis on the morning of presentation. Initially, he presented to a local urgent care due to worsening chest pain, and ECG revealed diffuse ST segment elevations and elevated level of troponin I. On current presentation, repeat troponin was noted to be 40 ng/mL. He was then admitted to the paediatric (PICU) for close monitoring of severely elevated troponin and ECG changes. He was symptomatically managed with unspecified nonsteroidal anti-inflammatory agents and was monitored with serial troponins every 6 hours. Due to the possibility of multi-inflammatory syndrome in children (MIS-C), laboratory investigations were performed, which revealed elevated levels of CRP and d-dimers. His chest pain resolved, troponin levels declined within 24 hours and ST segment elevations improved. Diffuse T-wave inversions were noted on EKG. On PICU day 3, his troponin levels further declined. He was then discharged with ibuprofen. At a follow-up after 1 week after discharge, echocardiogram was found to be normal and troponin I level of 0.17 ng/mL was noted. A diagnosis of acute myopericarditis secondary to COVID-19-Vaccine-Pfizer-BioNTech vaccine was made.

Case 2: The 17-year-old boy to a local urgent care center with chest pain. He had received second dose of COVID-19-Vaccine-Pfizer-BioNTech [Pfizer-BioNTech COVID-19] vaccine 3 days prior to the presentation. After receiving the vaccine, on the same day, he experienced fatigue, headache, generalised body aches and fever. He described the chest pain as nonradiating, sharp and constant pain localised to the sternum, which was exacerbated by deep inspiration. He also experienced shortness of breath with the chest pain. Laboratory investigations revealed elevated level of troponin I and ST segment elevations on the ECG, suggestive of myocarditis. He was then transferred to the ED for cardiology evaluation. Echocardiogram demonstrated mildly decreased left ventricular systolic function. He was admitted to the PICU for close monitoring due to the elevated troponin I and EKG changes. Laboratory investigations revealed mildly elevated BNP and elevated CRP and ESR. A diagnosis of acute myopericarditis secondary to COVID-19-Vaccine-Pfizer-BioNTech vaccine was made. He was managed with ibuprofen and unspecified narcotics for chest pain along with serial troponins monitoring. He was then transferred out of the PICU at hospital day 2 and was discharged on day 3. His troponin level at the time of discharge was noted to be 0.55 ng/mL, and EKG revealed normal ST segments.

Ambati S, et al. Acute myopericarditis after covid-19 vaccine in teenagers. *Case Reports in Cardiology* 2021; 20 Sep 2021. Available from: URL: <http://doi.org/10.1155/2021/8268755>

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