

A case of MINOCA in a patient with recent history of COVID-19 infection.

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Background

Myocardial infarction with nonobstructive coronary arteries (MINOCA) is a syndrome of myocardial ischemia resulting from microvascular dysfunction and with < 50% stenosis of major epicardial vessel. Incidence of MINOCA is 6% among patients with acute myocardial infarction. We present a case of MINOCA in a patient with a recent history of COVID-19 infection.

Case presentation

A 22-year-old man with recent history of Covid 19 infection presented with 3 days history of typical cardiac chest pain. He was not taking any medications or illicit drugs. EKG revealed sinus rhythm with ST elevations in leads II, V5, V6. Troponin I was elevated to 5.3ng/ml. He underwent coronary angiography which was reported as normal with no signs of obstructive coronary artery disease. Further workup including viral panel, ESR, CRP, HIV, hepatitis panel were negative. He was discharged on clopidogrel, metoprolol and rosuvastatin. His clinical course was significant for recurrence of similar symptoms 2 months later, with EKG revealing similar pattern as prior. Cardiac CT was negative for pericardial thickening or any other cardiac abnormalities. He was started on aspirin and colchicine for suspected post-Covid myopericarditis, resulting in resolution of his symptoms.

Conclusion

Diagnosis of MINOCA should include recognizing underlying mechanism as it would help in the management. Common reversible etiologies of MINOCA are microvascular dysfunction, spasm and thrombophilia disorders. Interestingly, COVID-19 infection has been recognized as a thrombophilic state. While the management of overt coronary artery disease is well established, the benefits of reperfusion strategies and cardioprotective therapies in MINOCA require further investigation.