Coronary embolism after infection with covid-19 in non-diabetic non-hypertensive patient. A case report .

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Case presentation

A 72-year-old female patient presented to the emergency department with one week history of dry cough, sore throat, and dyspnea grade 3, and 9 hours history of retrosternal chest pain. The patient had normal pulse, temperature and blood pressure. She had bilateral decreased air entry, S1 and S2 heard normally and had no lower limb edema. The patient had free past medical and surgical history. Laboratory investigations and ECG were done. Laboratory investigations showed that the patient was infected with SARS-CoV-2, and also showed positive cardiac enzymes, low hemoglobin (10.4 g/dl), high WBCs (14.9) 10^3/ul and high platelets (614) 10^3/ul. ECG showed normal sinus rhythm (NSR) at 75 BPM and ST segment elevation in II, III and aVF leads. The patient received one vial intravenous streptokinase in 50 cc glucose 5% and was transferred to the ICU for further management.

Discussion

We report a patient who developed ST elevation myocardial infarction (STEMI) as a result of intra-coronary embolism following infection with SARS-CoV-2. Cardiac involvement was reported in COVID-19 patients. Some studies reported coronary embolism after COVID-19 infection. This may be attributed to thrombus formation, hyper-coagulation, plaque rupture, inflammation or immune complications. Chest pain, dyspnea, ST segment elevation and positive cardiac enzymes are the most clinical presentations in myocardial infarction patients after COVID-19 infection. This requires urgent management with thrombolytic agents and may need further surgical intervention.

Conclusion

Myocardial infarction as a result of intra-coronary embolism may follow infection with COVID-19. Many mechanisms were reported explaining this possible association. More research is required to know how COVID-19 can cause coronary embolism

abbreviations

NSR= normal sinus rythm. STEMI= ST elevation myocardial infarction