

Colchicine/covid-19-vaccine-pfizer-biontech/ibuprofen

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Acute pericarditis, rebound effect in the form of acute pericarditis and lack of efficacy: case report

A 30-year-old man developed acute pericarditis following vaccination with Covid-19-vaccine-pfizer-biontech. Additionally, he experienced rebound effect in the form of acute pericarditis during following tapering of ibuprofen for acute pericarditis. Also, he exhibited lack of efficacy during treatment with colchicine for acute pericarditis [*routes and durations of treatments to reactions onsets not stated; not all dosages stated*].

The man, who was otherwise healthy, was admitted to a hospital cardiac intensive care unit (CICU) in view of cardiac tamponade with large circumferential pericardial effusion. Cardiovascular examination revealed HR 100 bpm, jugular vein distension, muffled heart sounds and BP 90/55 mmHg. He had received his second dose of Covid-19-vaccine-pfizer-biontech [Comirnaty], 40 days prior to presentation. Post vaccination, he had developed fever, typical pleuritic chest pain for the subsequent 5 days, with reduction of the symptoms, followed by presyncope 30 days later. Thus, he was diagnosed with acute pericarditis secondary to Covid-19-vaccine-pfizer-biontech.

The man, underwent pericardiocentesis, and started receiving ibuprofen 600 mg thrice a day and colchicine 0.5mg BID, with symptom remission. Hence, he was discharged. However, 1 week later, upon tapering ibuprofen, he experienced rebound effect in the form of disease flare-up involving pleuritic chest pain, fever, increased inflammatory markers, neutrophil leukocytosis, PR depression and diffuse ST elevation with inverted T waves leading to acute pericarditis. Thus, despite receiving therapy with colchicine, his condition worsened (lack of efficacy).

Therefore, the man was readmitted to CICU in view of pericardiocentesis. However, his pericardiocentesis was deferred, and he was treated with anakinra. Within 72 hours after initiation of therapy, complete reabsorption of the pericardial effusion was noted. His CRP levels decreased to 34 mg/L. Subsequently, he was discharged on anakinra, ibuprofen 600mg thrice daily and colchicine for 6 months, along with unspecified proton pump inhibitor. Upon follow-up after 1 month, he was found to be asymptomatic.

Perna F, et al. Rapid resolution of severe pericardial effusion using anakinra in a patient with COVID-19 vaccine-related acute pericarditis relapse: a case report. *European Heart Journal - Case Reports* 6: ytac123, No. 4, Apr 2022. Available from: URL: <https://academic.oup.com/ehjcr> 803671861