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COVID-19 disease in patients with recurrent pericarditis during treatment with anakinra

Title:

Commentary on “Use of Anakinra to Prevent Mechanical Ventilation in Severe COVID-19: A Case Series.”: COVID-19 disease in patients with recurrent pericarditis during treatment with anakinra

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Accepted Article

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We read with interest the paper from Navarro-Millan about the use of anakinra in severe COVID-19 patients (1). On the other hand, there is the issue of patients treated with anakinra for their underlying condition and who develop COVID-19 (2).

We describe here five patients, median age 43 year, with recurrent pericarditis (RP) (post-pericardiotomy in 1 case, idiopathic in 4 cases), who had COVID-19 disease during treatment with anakinra. Median duration of RP was 48 months. All the subjects were treated with anakinra after an initial treatment with corticosteroids, NSAIDs and colchicine (Table 1).

The patients developed COVID-19 disease between March 2020 and October 2020. Symptoms, usually mild, included fever, cough, ageusia, anosmia, headache, diarrhoea, dyspnoea and chest pain (Table 1).

Four subjects tested positive for SARS-CoV2 nasopharyngeal swab and one for SARS-CoV2 serological test after symptoms. Two patients went to the emergency room and chest-X ray showed a small lung infiltrate in one case, but no hospitalization was required.

Therapy with anakinra was maintained unchanged. Three patients added therapies during COVID-19 disease (Table 1).

All patients recovered completely within 15 days and had no recurrence of pericarditis. Polytherapy is often necessary in patients with RP, and therapy with an anti-IL1 agent may be resolute (3); a concern may be raised that this biological therapy might aggravate the clinical course of coronavirus-19 disease.

Our small series show that anakinra therapy in patients with RP may be associated with a benign clinical course. We propose that there is no reason to discontinue anakinra therapy if a patient with RP develop COVID-19 disease (4–7). This is in agreement with the findings of Navarro-Millan (1).

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Table 1. Summary of main features of patients.

Patient	Duration of pericardial disease	Therapy when covid-19 occurred	Covid-19 clinical features	Adjusted/additional therapies During covid-19	Hospitalization or ER visit	Duration of covid-19 symptoms
One 54 y.o. Male	12 months	Anakinra 100 mg every 48 hours	Fever and cough; infiltrate in the right middle lobe at chest-X ray; elevation of CRP and D-dimer	Azithromycin	Emergency room visit, no hospitalization needed	5 days
Two 15 y.o. Male	21 months	Anakinra 100 mg every three days and colchicine 1 mg/daily	Low-grade fever and asthenia	None	None	2 days
Three 43 y.o. Female	48 months	Anakinra 100 mg every 4 days and colchicine 1 mg/daily	Fever, cough for four days, ageusia, anosmia, diarrhoea and headache	None	None	15 days
Four 35 y.o. Female	54 months	Anakinra 100 mg/daily, colchicine 1.5 mg/daily and nadolol	Dry cough, fever for three days, asthenia and diarrhoea; chest pain; normal CRP	Prednisone 25 mg/daily for 5 days, then 12.5 mg/daily and indomethacin	Emergency room visit; no hospitalization needed	10 days
Five 78 y.o. Female	60 months	Anakinra 100 mg/daily, colchicine 1 mg/daily and prednisone 2.5 mg every two days	Low-grade fever for two days, dyspnoea	Prednisone 2.5 mg/daily, paracetamol, amoxicillin-clavulanic acid	None	15 days