Dear Editor,

Infliximab, a monoclonal antibody against TNF-α, has become a valuable treatment option for patients with Crohn’s disease (CD) unresponsive to standard medical therapy. However, multiple adverse effects have been reported worldwide. Concerning the heart, worsening and new-onset heart failure has been described (1). We report the case of a patient with CD presenting with acute perimyocarditis 12 days after his first infliximab infusion.

Case report

A 51-year-old man was admitted to the hospital because of fever and chest pain. His medical history was relevant for fistulizing CD diagnosed a year ago, and conventional agents failed making any improvement. Therefore, was made the decision to proceed with biological therapy using infliximab 12 days after the first infusion, the patient experienced fever and malaise, developing chest pain over the next 48 hours. On admission, his body temperature was 38.3 °C and a pericardial rub was heard. ECG revealed nonspecific ST-T changes in V3-V4, and laboratory findings included mild leukocytosis (13.0 x 10⁹/L, 7% eosinophils), C-reactive protein of 42.9 mg/L, and troponin T elevated (952.8 ng/L). 2D echocardiogram showed minimal pericardial effusion, depressed LV systolic function and hypokinesia of the anterior wall (ejection fraction 38%), supporting a diagnosis of acute perimyocarditis. Cardiac magnetic resonance (CMR) features were consistent with perimyocarditis, excluding myocardial infarction. Full viral and immune profile were checked, and failed to identify a cause of perimyocarditis. The patient was admitted to the ICU and treated with supportive care, ACE inhibitors, beta-blockers, and diuretics. In a follow up echocardiogram 1 week later, LV systolic function was markedly improved (ejection fraction 60%). The patient was discharged in good condition, and infliximab was withdrawn definitely. Three months later his echocardiogram was completely normal.

Discussion

There are numerous causes of acute perimyocarditis, including hypersensitivity reactions. Hypersensitivity myocarditis is often drug-related and usually characterized by acute rash, fever, peripheral eosinophilia, and nonspecific ECG abnormalities. Etiology of perimyocarditis is often difficult to identify. Our patient has no evidence of previous cardiac disease or systemic disorders. A viral opportunistic infection is a reasonable option, but serology failed to identify a pathogen. In this setting, infliximab is the most likely etiological factor, favored for the temporal association between administration and symptoms onset. Additionally, based on Naranjo probability scale of adverse drug reactions (2), it is probable that perimyocarditis of our patient was due to infliximab. Endomyocardial biopsy (EMB) is the gold standard for diagnosis of definitive myocarditis, with highest levels of recommendations in life-threatening clinical presentations (3). CMR enables detection of myocarditis, and is useful ruling out ischemic cardiomyopathy. CMR features of our patient were consistent with myocarditis, and his good response to conventional treatment deemed biopsy unnecessary. There are only two cases collected in the literature of infliximab-related myocarditis. In the first report (4), temporal relationship made the association weak. Slattery et al. experienced the other case (5), representing the first definitive report of a hypersensitivity myocarditis associated with infliximab. Therefore, this is the second conclusive
report of this association, emphasizing the need to be aware about potential cardiotoxicity of the drug, even in young patients with no underlying cardiac disorder.

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References