

Adult Onset Still's Disease Myocarditis Masquerading as Inferior STEMI

61

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Type of submitter

Resident

Abstract

Introduction:

Myocarditis in Adult Onset Still's disease occurs early in disease onset and has a male preponderance. We present a case of inferior ST elevation on EKG that persisted despite revascularization of 95 percent obtuse marginal stenosis but resolved completely after a single dose of steroids.

Case presentation:

A 40-year-old Caucasian male without significant medical history presented with severe chest pain radiating to his left arm, intermittent for one day and worsened half an hour prior to presentation. He also had one-week history of ongoing joint pain with swelling in multiple small joints and non-pruritic rash over his trunk and bilateral extremities. He was hemodynamically stable but had a temperature of 99.6 degrees Fahrenheit.

Electrocardiogram (EKG) at presentation showed 3 mm ST elevations in leads II, III and aVF and ST depressions in lead I and aVL. Due to presentation of chest pain and EKG evidence of Inferior STEMI, emergent cardiac catheterization was done, which showed 95% stenosis in proximal obtuse marginal branch for which a drug eluting stent (DES) was placed, no other obstructive disease was noticed. EKG post-catheterization showed improvement in ST elevation to 1mm. Patient also had improvement of chest pain. Twelve hours later patient had worsening chest pain associated with worsening rash and joint swelling, troponins continue to uptrend and EKG showed persistent 1mm ST elevation in lead II and aVF without reciprocal changes. A repeat catheterization showed patent stent and normal coronaries. After rheumatology consultation, Prednisone was started for possible autoimmune versus viral syndrome. ST elevation resolved with a single dose of 20 mg Prednisone along with improvement in rash, joint pains and chest pain. Echocardiogram showed left ventricular ejection fraction of 48 percent, with inferolateral hypokinesis.

Laboratory testing showed elevated Ferritin level of 12,083. Blood count showed low normal white blood cell count (4000 per microliter (K/uL) and platelet count of 138,000 per microliter at admission, both of which gradually increased to 8.9 K/uL and 221,000 respectively at discharge after initiation of prednisone. Liver panel was significant for elevated Aspartate Aminotransferase level of 136. High sensitivity troponins peaked at 4614.

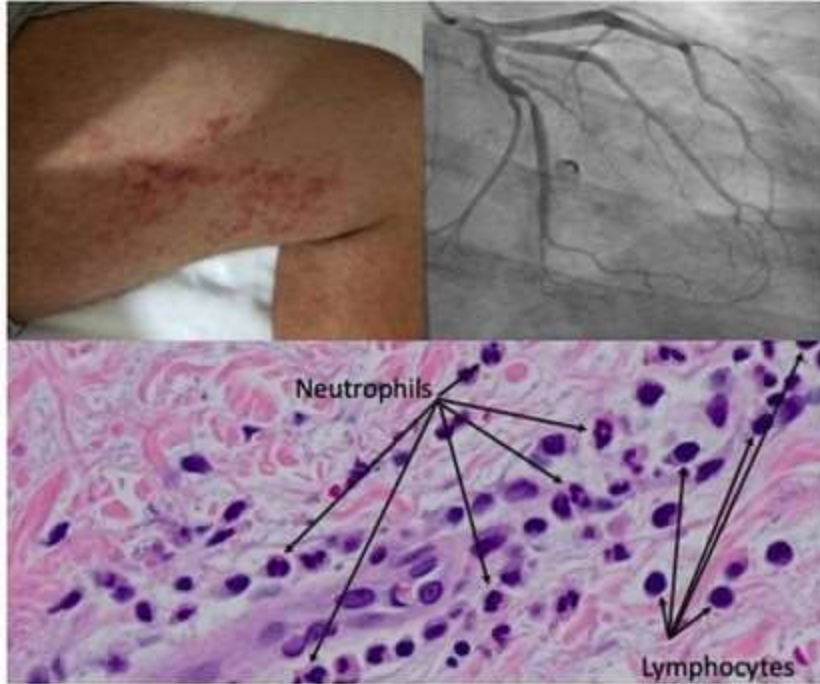
Skin biopsy of rash showed a leucocytoclastic vasculitis picture with perivascular neutrophil and lymphocyte infiltration. Anti-nuclear antibody and Rheumatoid factor were negative. Screening for hepatitis, Epstein Barr Virus, Cocksackie virus, Human Immunodeficiency Virus, Adenovirus and Influenza returned normal.

Discussion:

Adult Onset Still's disease is a systemic inflammatory disorder of unknown etiology characterized by spiking fever, arthritis, serositis and transient cutaneous manifestations, of which evanescent salmon pink or erythematous maculopapular rash on trunk and limbs, like in our patient, is the most common manifestation. Myocarditis in Still's disease occurs early in the disease and has a fatality rate of 4%, highlighting the importance of its early recognition and treatment.

Conclusion:

Although our patient had improvement in ST elevations with revascularization, complete resolution of EKG changes and symptoms including chest pain and joint pain, occurred only after initiation of steroids, suggesting a predominant myo-pericarditis etiology of his presentation.



Categories

Resident Case

Program/Institution Name

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