Eosinophilic granulomatous polyarteritis presenting as acute coronary syndrome; a case report

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Introduction
Eosinophilic granulomatous polyarteritis (EGPA) is a vasculitis characterized by asthma, chronic rhinosinusitis, purpura and eosinophilia but it may affect any organs. We report a case of eosinophilic myocarditis due to EGPA presenting as recurrent chest pain.

Case Presentation
A 38 year-old woman with history of long standing asthma and refractory sinusitis who reported rhinorrhea and cough three weeks prior to the admission. Two weeks later, chest pain and headache developed daily. On the day of admission, she felt squeezing substernal chest pain accompanied by dyspnea. Physical examination was remarkable for tachycardia, tachypnea and low grade fever. There were no wheezes, rash, and no evidence of neuropathy. Electrocardiogram (ECG) showed T-wave inversion in lead II, III, aVf and V4 through V6. Troponin-T was positive. Non-ST elevation myocardial infarction (NSTEMI) was suspected but urgent coronary angiogram was unremarkable. Laboratory tests showed marked eosinophilia, normal renal function and normal urinalysis. Antineutrophil cytoplasmic antibody (ANCA) was negative. Myocardial and sinus biopsies demonstrated eosinophilic inflammation. We diagnosed EGPA and started high-dose steroid treatment; her chest pain resolved.

Discussion
Chest pain without coronary risk factors with positive cardiac enzyme in a young woman led to a diagnosis of myocarditis due to EGPA based on a history of asthma, sinusitis, marked eosinophilia and eosinophilic infiltrates in myocardium. ANCA is often negative for cases with EGPA with cardiac involvement, which is rare for the first manifestation of the disease. Myocarditis, cardiomyopathy, spontaneous coronary artery aneurysm have been reported in which prognosis could be fatal. The patient responded well to therapy as steroid is the mainstay of treatment.