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Case report (includes case series that include 5 or fewer patients)

Title: Eosinophilic Myocarditis: Bad Blood with Bad Beat

Description: This is a case report detailing work-up/diagnosis of eosinophilic myocarditis.

TITLE: EOSINOPHILIC MYOCARDITIS: BAD BLOOD WITH BAD BEAT

Background: Eosinophilic myocarditis is a rare yet potentially life-threatening complication of hypereosinophilia.

Case: A 61-year-old woman presents with a syncopal episode six months after cardioembolic stroke. Initial work-up revealed an elevated eosinophil count of 27% (0% prior), thrombocytopenia of 49,000 cells/ μ l (106,000 cells/ μ l prior), elevated troponin of 429 pg/mL, and elevated creatinine of 1.91 mg/dL (baseline 1.4 mg/dL). ECG showed a new left bundle branch block. An echocardiogram showed normal ejection fraction without wall motion abnormalities. Further evaluation for elevated eosinophils ruled out infectious or rheumatologic etiologies. The bone marrow biopsy exhibited eosinophilic hyperplasia without neoplasia, confirming hypereosinophilic syndrome.

Decision Making: Given thrombocytopenia, acute kidney injury, normal echo, and concern for an inflammatory process, cardiac stress MRI was chosen over left heart catheterization to evaluate for ischemia. The MRI showed subepicardial late gadolinium enhancement from basal to mid-apical inferoseptum with concurrent edema (Figure 1) and was negative for inducible ischemia or prior infarction, consistent with eosinophilic myocarditis. A myocardial biopsy was omitted due to the classic presentation. The patient started prednisone with a taper. A month later, the troponin declined to 24 pg/mL, and eosinophil count returned to 0%.

Conclusion: Eosinophilic myocarditis can be diagnosed non-invasively with a characteristic history, lab data, and cardiac MRI findings. Compared to other causes of eosinophilic myocarditis, hypereosinophilic syndrome responds better to steroids and has a lower mortality.

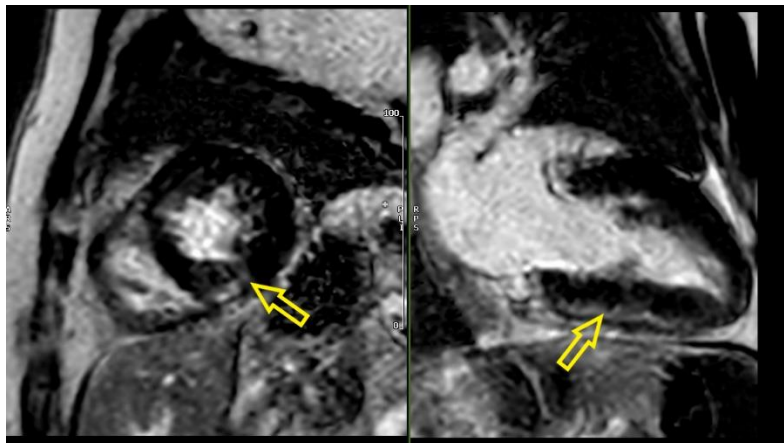


Figure 1: Cardiac stress MRI imaging revealing linear subepicardial late gadolinium enhancement from basal to mid-apical inferoseptum with concurrent edema.

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