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IMAGES IN CARDIOLOGY

# Response to Alemtuzumab in FIP1L1/PDGFRA-Negative Hypereosinophilic Myocarditis on Serial Cardiac Magnetic Resonance Imaging

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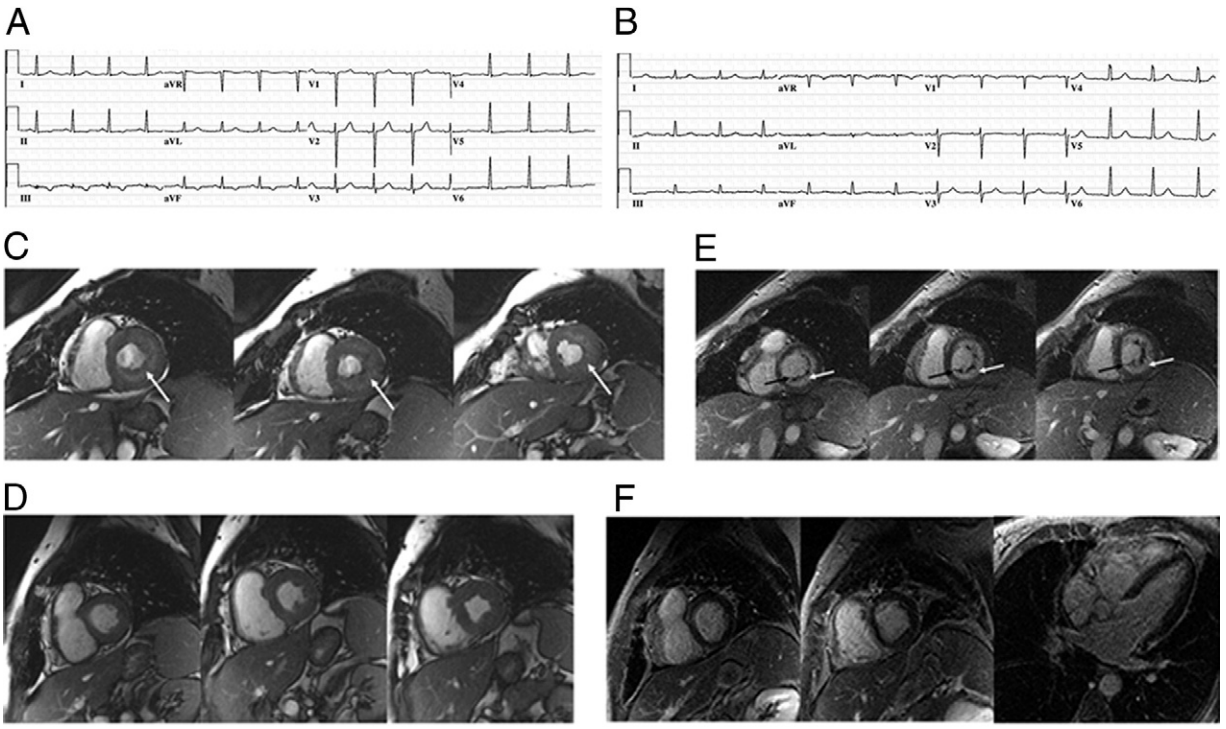


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A 48-year-old Caucasian woman presented with 2 weeks of myalgias, arthralgias, headache, and neck stiffness. Total peripheral leukocyte count was 80.2 × $10^9$/l with 72% eosinophils. A diagnosis of *FIP1L1/PDGFRA*-negative hypereosinophilic syndrome was made. The 12-lead electrocardiogram demonstrated inferolateral repolarization abnormalities **(A)**. Serum troponin T was 0.25 ng/ml. Electrocardiography-gated cardiac magnetic resonance imaging demonstrated anterior, anterolateral, inferolateral, and inferior left ventricular (LV) wall thickening, with corresponding abnormal subendocardial T2 signal **(C, white arrows)** and delayed gadolinium enhancement **(E, white arrows)**. The posterior mitral valve leaflet was tethered. The LV wall motion, right ventricle, and pericardium were normal. Subcutaneous alemtuzumab was started on day 11 (3 mg, 10 mg, 30 mg on consecutive days; then 30 mg 3× weekly for 12 doses). Peripheral eosinophilia resolved by day 16. At day 60, electrocardiographic ST and T-wave changes had improved **(B)** and repeat cardiac magnetic resonance imaging **(D and F)** demonstrated resolution of the aforementioned abnormalities with reduction in LV mass from 116 g (mass index 66 g/$m^2$) to 89 g (52 g/$m^2$).