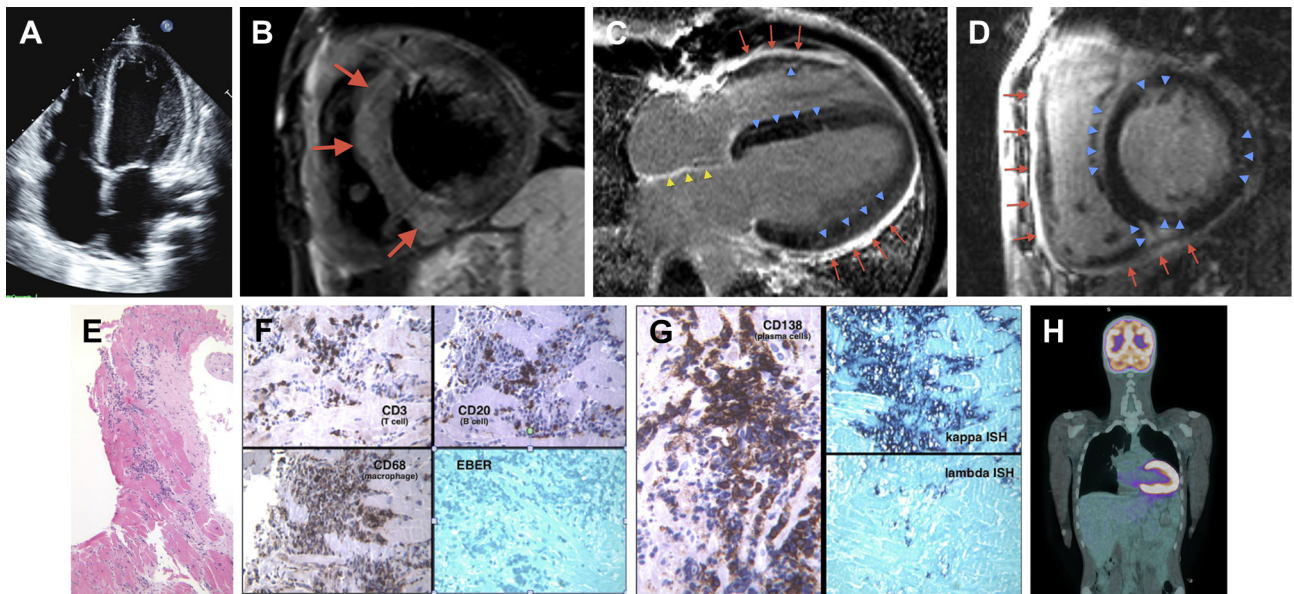


IMAGES IN CARDIOLOGY

Cardiac Allograft Involvement by Post-Transplantation Lymphoproliferative Disorder

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A 26-year-old man with a history of Becker's muscular dystrophy and cardiomyopathy, 3 years status post cardiac transplantation, presented with rapidly worsening heart failure. Transthoracic echocardiography showed moderate biventricular dysfunction with global hypokinesia and 4-chamber dilation (A, [Online Video 1](#)). Cardiac magnetic resonance showed interventricular septal edema on T2-weighted imaging (B) and extensive midwall late gadolinium enhancement involving both ventricles and atria, as well as the pericardium (C,D). The differential diagnosis included post-transplantation lymphoproliferative disorder, myopericarditis, and, less likely, cardiac sarcoidosis. Right ventricular endomyocardial biopsy showed multifocal plasmacytoid infiltration (E) and excluded acute cellular rejection. Immunohistochemical studies demonstrated monoclonal kappa in situ hybridization and negative ribonucleic acid for Epstein-Barr virus (F,G). Collectively, the biopsy and cardiac magnetic resonance findings were most consistent with post-transplantation lymphoproliferative disorder. There was no evidence of ^{18}F -fluorodeoxyglucose-avid disseminated lymphoproliferative process on positron emission tomography (H). After reduction of immunosuppressive medications, the patient was treated with monoclonal anti-CD20 antibody (rituximab) and bendamustine.