**SPONTANEOUS LEFT ATRIAL DISSECTION CAUSED BY MITRAL VALVE ENDOCARDITIS**

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*Background*. Non-traumatic, non-iatrogenic spontaneous left atrial dissection (SLAD) is rarely reported in association with mitral annular calcification, aortic dissection, myocardial infarction or amyloidosis. We report a case of an SLAD in a patient with mitral valve endocarditis.

*Case*. A 66 year old man with stage IV melanoma on chemotherapy (tafinlar and mekinist) presented with persistent fever and retinal hemorrhage, and group B streptococcal bacteremia. Transthoracic echocardiogram (TTE) was abnormal and a transesophageal (TEE) study revealed SLAD involving the posterior wall of the atrium (figure 1A) and significant regurgitation into the dissection cavity (false lumen). This was further verified by cardiac magnetic resonance (CMR) imaging (figure 1B). No cardiac metastatic lesions were identified by CMR. Patient received antibiotics with complete symptomatic recovery and negative blood cultures but was denied surgery due to advanced cancer. Six months later he was admitted with Staphylococcus lugdunensis bacteremia, osteomyelitis of spine and septic emboli to the brain. Repeat TEE showed marked increase in valvular vegetation burden and no change in SLAD (figure 1C). Medical therapy resulted in complete symptomatic recovery and patient has remained symptom-free despite lack of surgical intervention for 2 years. Repeat TTE showed fibrosis/calcification of mitral annulus, leaflet and dissected atrial wall.

*Literature Review*. Only 2 prior cases of SLAD associated with endocarditis (both mitral, fatal and caused by methicillin-sensitive Staphylococcus aureus) have been reported. *Conclusion*. We present a unique case of SLAD caused by group B streptococcal mitral valve endocarditis that has been stable for >2 years despite medical therapy alone.

