

Cardiac Fibroelastoma: Cardiovascular Magnetic Resonance Characteristics

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A 59-year-old female was referred for exclusion of a cardiac source of embolization after a second cerebro-vascular accident (CVA) which had resulted in a right hemiparesis. She was an ex-smoker, had dyslipidemia, and had sustained an ischemic left cerebellar infarct 3 years previously. Cardiovascular examination and ECG were normal, as were routine blood tests. Computed tomography and MRI of the brain confirmed the ischemic nature of both CVAs. A transesophageal echocardiogram suggested a hyperechogenic mass in the left ventricle, and cardiovascular magnetic resonance (CMR) was performed. Steady state free precession (SSFP) cine imaging showed a mobile 1

cm mass attached to the inferior wall of the left ventricle that was hypointense compared to the myocardium. The mass was of high signal intensity on T2 weighted sequences, intermediate signal intensity on T1 weighting, but did not suppress with fat saturation. There was strong late enhancement after gadolinium (Fig. 1). The CMR appearances suggested the diagnosis of fibro-elastoma, which was subsequently confirmed at open resection. The CMR tissue characterisation findings described are typical of fibroelastoma. The tumor was resected because of the risk of further embolization, allowing confirmation of the diagnosis.

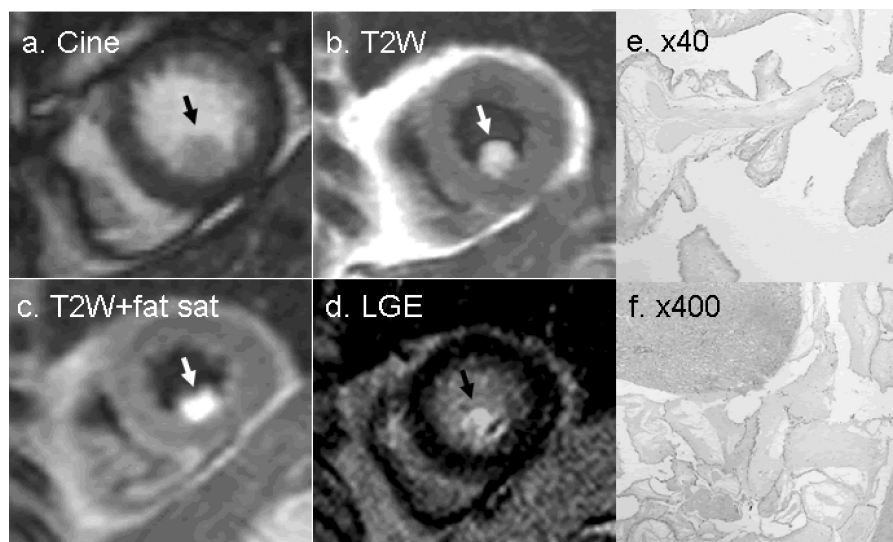


Figure 1. Short axis views showing a) the tumor hypo intense on cine SSFP imaging, b) hyper intense on T2-weighted STIR, not suppressing with fat-saturations, c) and demonstrating late enhancement after gadolinium, d) Histology demonstrating tumor papillae composed of avascular elastin and collagen layers covered by endothelium, e) and f).