Pseudotumor of the mitral annulus

We present the case of a 61-year old female patient who was clinically asymptomatic and in good general condition. The patient was referred for echocardiography during the course of the diagnostic evaluation of her moderate arterial hypertension. During the echocardiographic examination, a large mass arising from the posterior part of the mitral annulus was found with echo-dense smooth borders suggestive of calcification (Figure 1, Figure 2). After the first examination, the patient remained for years in follow-up in our echocardiographic laboratory. We observed different changes in the aforementioned mass in yearly echocardiographic examinations. The changes included echo „dilution” of the center of the mass followed by the formation of a communicating duct between the center of the mass and the left atrium. Also irregular protuberances were formed at the sides facing the left atrium and the left ventricle. Considering the potential for a systemic thromboembolic event arising from the protuberances of the mass, additional 3D trancathetral analysis was performed which is described in this case-report. It appears that the mass is most probably a fibrocalcification of the mitral annulus with a central amorphous content that eventually drained into the left atrium of left ventricle, but without apparent thromboembolism. The patient has been treated conservatively because there was no impairment of the mitral valve function. Due to a high risk of thromboembolism, she was started on anticoagulation therapy with warfarin. Although the mass was not excised and we do not have a histological analysis, judging by the echocardiographic appearance, clinical presentation and data from literature, the findings primarily indicate degenerative disease of the mitral annulus with possible calcification. This condition has a benign prognosis, but can mimic cardiac tumor, vegetation or calcified thrombus.1,2


KEYWORDS: echocardiography, mitral valve, calcification, pseudotumor.

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Figure 1. 3D view of the calcification of the mitral annulus.

Figure 2. 2D view of the calcification of the mitral annulus.