

# Diagnostic evaluation and surgical treatment of asymptomatic papillary fibroelastoma at the root of the aorta

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**Introduction:** Primary cardiac tumors are approximately 20 times rarer than nonprimary cardiac tumors. Cardiac papillary fibroelastomas are the 2nd most common type of cardiac tumors, with greater frequency only by myxomas.<sup>1</sup> The clinical manifestations of this entity are not well described. Cardiac papillary fibroelastomas are associated with substantial complications that are secondary to systemic embolism. Based on studies cardiac papillary fibroelastomas are generally small and single, occur most often on valvular surfaces, may be mobile, resulting in embolization. Because of the potential for embolic events, symptomatic patients, patients undergoing cardiac surgery for other lesions, and those with highly mobile and large ones should be considered for surgical excision. Valve-sparing excision produces good long-term results.<sup>2</sup>

**Case report:** We present 66-years-old asymptomatic female who was diagnosed an incidental cardiac mass on echocardiography. Cardiac mass was attached to aortic side of aortic valve and was 22 x12 mm in dimension. Due to the large size of cardiac mass the patient underwent urgent cardiac evaluation, to evaluate the consistency and the extent of tumorous mass. MSCT coronarography showed Calcium score of coronary arteries 63, suggesting non-significant coronary disease. Inside of noncoronary sinus with expansion to left coronary sinus, postcontrast imbibition defect was visualized, irregular in contour, dimensions 20x13mm parallel to aortic anulus. Transesophageal echocardiography was done to ensure the exact location and attachment to cardiac structures, as well as mobility. She was referred to Heart Team. Considering the size and mobility of tumor, the decision was to do surgical resection. Surgical resection was done, with complete extraction of tumorous mass, great result and sparing of aortic valve structure. During surgery the pathohistological material of tumorous mass was send to pathohistological evaluation. It showed the tumor was papillary fibroelastoma, respectively benign primary cardiac tumor. At 2 month follow up patient was clinically stabile, except for the occurrence of atrial fibrillation, as a possible postoperative complication.

**Conclusion:** This case report is the example of comprehensive diagnostic evaluation and treatment possibilities in patient with cardiac papillary fibroelastoma.

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## LITERATURE

- Bossert T, Gummert JF, Battellini R, Richter M, Barten M, Walther T, et al. Surgical experience with 77 primary cardiac tumors. *Interact Cardiovasc Thorac Surg.* 2005 Aug;4(4):311-5. <https://doi.org/10.1510/icvts.2004.103044>
- Sun JP, Asher CR, Yang XS, Cheng GG, Scalia GM, Massed AG, et al. Clinical and echocardiographic characteristics of papillary fibroelastomas: a retrospective and prospective study in 162 patients. *Circulation.* 2001 Jun 5;103(22):2687-93. <https://doi.org/10.1161/01.CIR.103.22.2687>