

# Papillary fibroelastoma on the pulmonary valve

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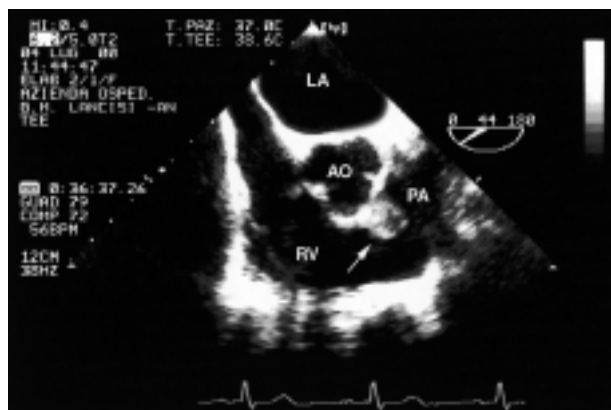
A 75-year-old woman with type 2 diabetes mellitus and systemic arterial hypertension was referred to our hospital because of worsening effort angina. Physical examination was unremarkable. A resting ECG showed sinus rhythm, and nonspecific ST-segment and T-wave changes. Transthoracic echocardiography revealed a mildly hypertrophied left ventricle with a normal systolic function and a 1.5 cm spherical, mobile mass with a central area of low echogenicity arising from the ventricular side of the right cusp of the pulmonary valve (Fig. 1). It was not associated with right ventricular outflow obstruction or with echocardiographic signs of pulmonary embolism. The right ventricular systolic pressure was normal (30 mmHg). Transesophageal examination confirmed the transthoracic findings (Fig. 2). On the basis of the characteristics of the mass, the presumptive diagnosis of papillary fibroelastoma was made.

Coronary angiography showed significant multivessel disease. The patient was submitted to coronary artery bypass graft surgery and to excision of a gelatinous, spherical mass (Fig. 3) from the right cusp of the pulmonary valve with combined valvular repair. Postoperative echocardiography showed mild pulmonary regurgitation. Histological examination confirmed the characteristic findings of a papillary fibroelastoma (Fig. 4). The patient had an uncomplicated postoperative recovery.

Pulmonary valve papillary fibroelastoma is a very rare cardiac tumor. To the best of our knowledge, only 3 cases have been previously reported in the literature<sup>1-3</sup>. Surgical excision is not usually required for asymptomatic right-sided papillary fibroelastomas<sup>4,5</sup>. In this case it was performed because the patient's coronary artery disease had prompted surgical intervention.



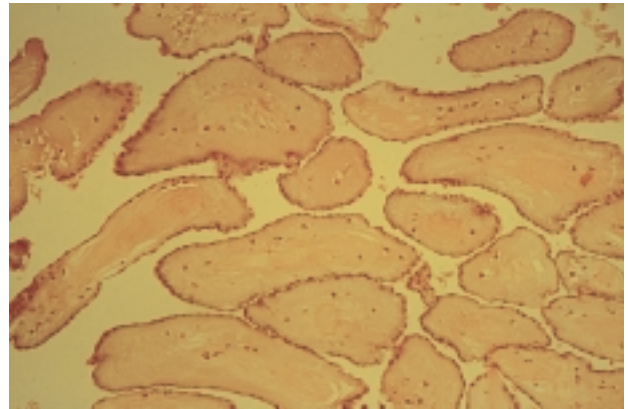
**Figure 1.** Transthoracic echocardiographic parasternal short-axis view showing a mass (arrow) attached to the ventricular side of the right cusp of the pulmonary valve. AO = aorta; PA = pulmonary artery.



**Figure 2.** Transesophageal echocardiographic long-axis view of the right ventricular outflow tract and pulmonary valve confirming the presence of the mass (arrow) arising from the ventricular side of the right cusp of the pulmonary valve. LA = left atrium; RV = right ventricle. Other abbreviations as in figure 1.



**Figure 3.** Gross specimen following surgical excision.



**Figure 4.** Microscopic appearance of the mass showing multiple papillary fronds composed of hyalinized stromal cores lined by a single layer of endothelium.

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