

Intracardiac mass masking severe mitral valve regurgitation

Masa wewnątrzsercowa maskująca ciężką niedomykalność zastawki mitralnej

María Elena Arnáiz-García¹, María E. Bueno-Codoñer¹, José María González-Santos¹,
María del Carmen Vargas-Fajardo², Adolfo Arévalo-Abascal¹, Antonio Arribas-Jiménez³

¹Cardiac Surgery Department, University Hospital of Salamanca, Paseo San Vicente, Salamanca, Spain

²Anesthesiology Department, University Hospital of Salamanca, Paseo San Vicente, Salamanca, Spain

³Cardiology Department, University Hospital of Salamanca, Paseo San Vicente, Salamanca, Spain

A 70-year-old woman was admitted to our institution due to a two-month history of progressive dyspnoea. Physical examination did not revealed abnormalities. Electrocardiogram showed sinus tachycardia. Transthoracic echocardiography demonstrated a giant mobile undefined mass located on the left atrium (LA). The tumour prolapsed on the left ventricle through the mitral valve (MV) during diastole (Fig. 1A–C). The absence of MV regurgitation was detected. Cardiac surgery was scheduled. Under general anaesthesia and continuous transoesophageal echocardiography (TEE) monitoring, a medium sternotomy was performed. Standard cardiopulmonary bypass was established through bicaval cannulation. Access to the LA was made via septal-superior approach. An encapsulated yellowish-red 7 × 6 cm mass arose from the LA. It was attached to the LA septum next to the anterior leaflet of MV. The tumour was completely excised (Fig. 1D, E). However, at the moment of weaning from cardiopulmonary bypass, intraoperative TEE revealed severe MV regurgitation that was previously unknown. Cardiopulmonary bypass was established again to access the LA. No clear MV annulus dilatation or leaflet abnormalities were detected. MV annuloplasty was decided. After second weaning of cardiopulmonary bypass, TEE confirmed the absence of MV regurgitation. Pathology determined myxoma diagnosis. The patient was discharged uneventfully, eight days postoperatively. Concomitant MV regurgitation and the presence of LA myxoma have been previously reported. The causes are related to the size and movement of the tumour interfering with transmitral valve flow, masking MV regurgitation. Moreover, mechanical dilatation of mitral annulus secondary to the presence of an LA tumour

may lead to mitral regurgitation. Lesion of MV leaflets or dysfunction of the posterolateral papillary muscle has also been reported. Evaluation of MV competence can be challenging in the context of an LA mass because the absence of MV insufficiency in the preoperative examination should not be taken as a reliable predictor of normal valve function. The role of echocardiography on diagnosis is crucial. Preoperative echocardiography should focus on valve dysfunction to separate tumour-related and unrelated valvular pathologies and their severity. A careful evaluation of MV during resection of myxoma or cardiac tumour is mandatory. Intraoperative and postoperative echocardiography to assess correct valve function and to discard valve regurgitation following tumour resection is also decisive. Association of MV annuloplasty or MV replacement needs to be considered when at least moderate MV regurgitation is detected on preoperative or postoperative echocardiogram, because future evolution or mitral regurgitation is unknown and remodelling does not always occur.

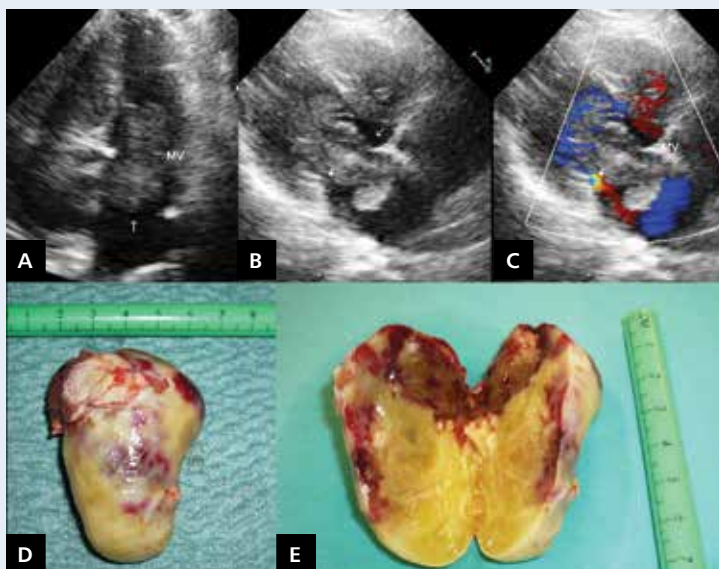


Figure 1. A. Transoesophageal echocardiography apical four-chamber view showing left atrial myxoma through mitral valve (MV); B, C. Transoesophageal echocardiogram Doppler colour focusing on MV regurgitation. A 7 × 6 cm mass attached to the interatrial septum and protruding into the left ventricle is shown; D, E. Surgical specimen that exposes tumour appearance. Intratumoural heterogeneity is patent, with haemorrhagic and calcification areas in its interior

Address for correspondence:

Dr María Elena Arnáiz-García, Cardiac Surgery Department, University Hospital of Salamanca, Paseo San Vicente 58-182, 37007-Spain, tel: 00 34923291263, fax: 00 34923291263, e-mail: elearnaiz@hotmail.com

Conflict of interest: none declared