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LETTER TO THE EDITOR

Which management strategy should be chosen for calcified masses of the mitral annulus?†

Salvatore Lentini*†

Cardiovascular and Thoracic Department, Policlinico G. Martino, University of Messina, Messina, Italy

* Corresponding author. Cardiovascular and Thoracic Department, Policlinico G Martino, Università di Messina, Viale Gazzi, 98100 Messina, Italy.
Tel: +39-90-2217081; fax: +39-90-2217086; e-mail: salvollen@alice.it (S. Lentini).

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The recent images published by Akita et al. [1] showing intracardiac calcified masses at the level of the mitral annulus represent a specific stage in the spectrum of an evolving disease. Mitral annulus calcification (MAC) may appear under different forms depending from its evolution stage: mitral annulus calcification; homogeneous calcified mass of the mitral valve; liquefaction necrosis of the mass; with reduction or stability of the mass dimension during the follow-up [2].

This condition may sometimes alter mitral valve function, provoking a transvalvular gradient or regurgitation by a distortion of the valvular apparatus [3]. However, the presence of calcified mitral annular masses protruding inside the left atrium should not be considered per se as an indication for surgery in the absence of an altered valve function. Surgery should not be recommended for the presence of only calcified masses at the level of the mitral annulus. It is true that pathologies of a different nature may affect the annulus or the nearby tissues. However, several imaging modalities [ultrasound, computed tomography scan and cardiac magnetic resonance (CMR)] may currently help to specify the nature of those calcified masses [2–4]. Different pathologies, such as soft tissue calcified sarcomas, calcified echinococcosis cysts, cardiac osteosarcomas and cardiac calcified amorphous tumours (CAT), should be included in the differential diagnosis [2]. However, specific imaging signs may help to reach a presumptive diagnosis. Soft tissue sarcomas are usually large and invasive masses with calcifications mostly involving only part of the necrotic tumour [4]. In echinococcal cysts, calcifications are classically peripheral. Primitive osteosarcomas can show massive calcification, but they usually grow rapidly [4]. If liquefaction necrosis occurs in MAC, and this is usually associated with a reduced mass dimension during the follow-up and with a benign prognosis [2, 5]. A cardiac CAT, showing a mass (thrombi, infections or infestations) with a mix of calcifications and inflammatory infiltrates, should also be considered in the differential diagnosis [6].

In conclusion, in patients with MAC, surgery should be indicated by the gradient across the valve or by the grade of regurgitation. In cases without abnormal valve function, conservative management may be effective even with large masses [2]. Multimodality imaging studies would help to specify their nature. Indications for surgery should be carefully weighed, in consideration also of the higher incidence of MAC in patients with clinical or subclinical chronic renal failure, as in the reported case.

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