Heart, Lung and Circulation (2015) **24,** e35–e38
1443-9506/04/$36.00
http://dx.doi.org/10.1016/j.hlc.2014.10.002

BRIEF COMMUNICATION

A 65 Year-old Woman with an Echodense Mitral Annular Mass

Panagiotis Stasinos, MD [a], Emmanouil Petrou, MD [b*], George Papailiakis, MD [a], Antonios Tsikaloudakis, MD [a], George Karatasakis, MD [b]

[a]Cardiology Department, Ierapetra General Hospital, Crete, Greece
[b]Division of Cardiology, Onassis Cardiac Surgery Center, Athens, Greece

Received 28 July 2014; received in revised form 6 October 2014; accepted 10 October 2014; online published-ahead-of-print 22 October 2014

Caseous calcification of the mitral annulus (CCMA) is a rare variant of mitral annular calcification which usually represents an incidental finding during cardiac imaging. Differential diagnosis from significant lesions such as myocardial abscesses or tumours may be problematic. Herein, we present the case of a 65 year-old woman with CCMA who was managed conservatively. Besides providing useful diagnostic clues, we briefly discuss management issues for this under-recognised clinical entity.

Key words Echodense mass • Caseous calcification • Mitral annulus • Transthoracic echocardiography • Transoesophageal echocardiography

Introduction

Mitral annular calcification (MAC) is a frequent, generally innocent, finding in cardiac imaging studies. It is usually associated with hypertension, advanced renal disease or atherosclerosis and does not cause significant valvular dysfunction. A rare variant of MAC, which comes under the term caseous calcification of the mitral annulus (CCMA), is a rare, less well defined entity with particular diagnostic/therapeutic implications.

Case Presentation

A 65 year-old woman was referred for evaluation of an echodense posterior mitral annular mass which was incidentally found on a transthoracic echocardiogram (TTE). The woman was asymptomatic with a history of hypertension under treatment. Two dimensional (2D) TTE demonstrated an 18x18 mm mass with peripheral calcification and multiple central echolucent niches, originating from the posterior mitral annulus (Figure 1 – **Suppl. Material 1**). The finding was confirmed by three dimensional (3D) TTE (Figure 2 – **Panel A – Suppl. Material 2**) and transoesophageal echocardiography (Figure 2 – **Panel B**). There was no mitral stenosis or significant regurgitation. Differential diagnosis included mitral annular abscess, cardiac myxoma/tumour, MAC or CCMA. Myocardial abscess was excluded on the basis of normal temperature and inflammatory markers. Cardiac myxomas are usually pedunculated highly mobile non-calcified masses which are attached to the myocardial wall along with the interatrial septum. The presence of peripheral calcification and the lack of internal blood flow on colour Doppler examination rendered the possibility of other cardiac tumours rather unlikely. The patient was given the diagnosis of CCMA by two experienced echocardiographers. Since this was an incidental finding with no documented complications – embolic events, significant valvular dysfunction, arrhythmia – a conservative approach was chosen. Indeed, the mass remained stable on subsequent transthoracic examinations and follow-up was uneventful.

Discussion

MAC usually represents an incidental finding during cardiac imaging. With TTE, on the parasternal and apical views,

*Corresponding author at: Division of Cardiology, Onassis Cardiac Surgery Center, 356 Syggrou Ave., GR-17674, Kallithea-Athens, Greece, Tel.: +302109493000; fax: +302109493336., Email: emmgpetrou@hotmail.com

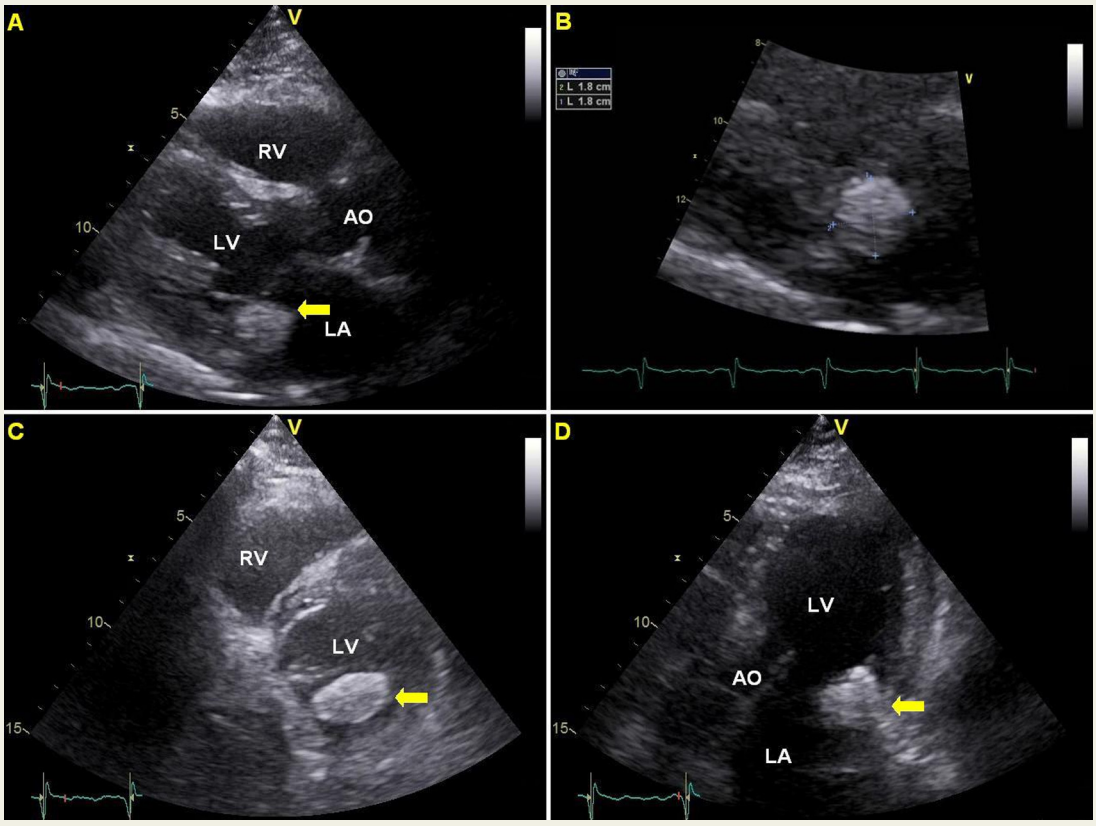

Figure 1 **Panel A**. Transthoracic echocardiogram (TTE), parasternal long axis (PLAX) view. A 18x18 mm circular mass with peripheral calcification and internal echolucent niches, originating from the posterior mitral annulus can be detected in this view. This corresponds to caseous calcification of mitral annulus (CCMA) (yellow arrow).
Panel B. TTE, PLAX, zoom view of the CCMA.
Panel C. TTE, parasternal short axis view, basal level. CCMA appears like a fusiform mass with echodense and echolucent material and smooth contour (yellow arrow).
Panel D. 4-chamber modified view (yellow arrow: CCMA).
(AO: Aorta; LA: Left Atrium; LV: Left Ventricle; RV: Right Ventricle).

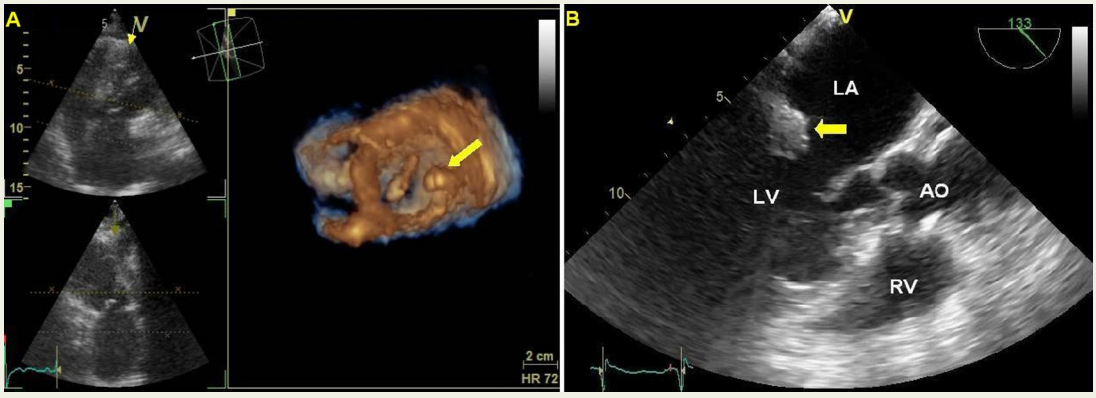

Figure 2 **Panel A**. 3D TTE view of the CCMA (yellow arrow).
Panel B. Visualisation of the CCMA (yellow arrow) by transoesophageal echocardiography.
(AO: Aorta; LA: Left Atrium; LV: Left Ventricle; RV: Right Ventricle).