ID: 14-0066; March 2015
DOI: 10.1530/ERP-14-0066

IMAGES AND VIDEOS

Right ventricular marantic endocarditis

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A 68-year-old female presented with chest pain and breathlessness. She had breast carcinoma treated 17 years ago, with further surgical excision for recurrence 7 years ago. Computerised tomography (CT) demonstrated bi-lateral pulmonary embolism, with extensive lymphadenopathy and lung metastases. She was treated with therapeutic heparin. Echocardiography revealed a right ventricular mass attached to the tricuspid valve chordae (Fig. 1; Videos 1 and 2), which could be thrombus, marantic or infective vegetation. Blood cultures were negative. Lymph node biopsy showed malignant cells, likely of breast origin. Despite therapeutic anti-coagulation,

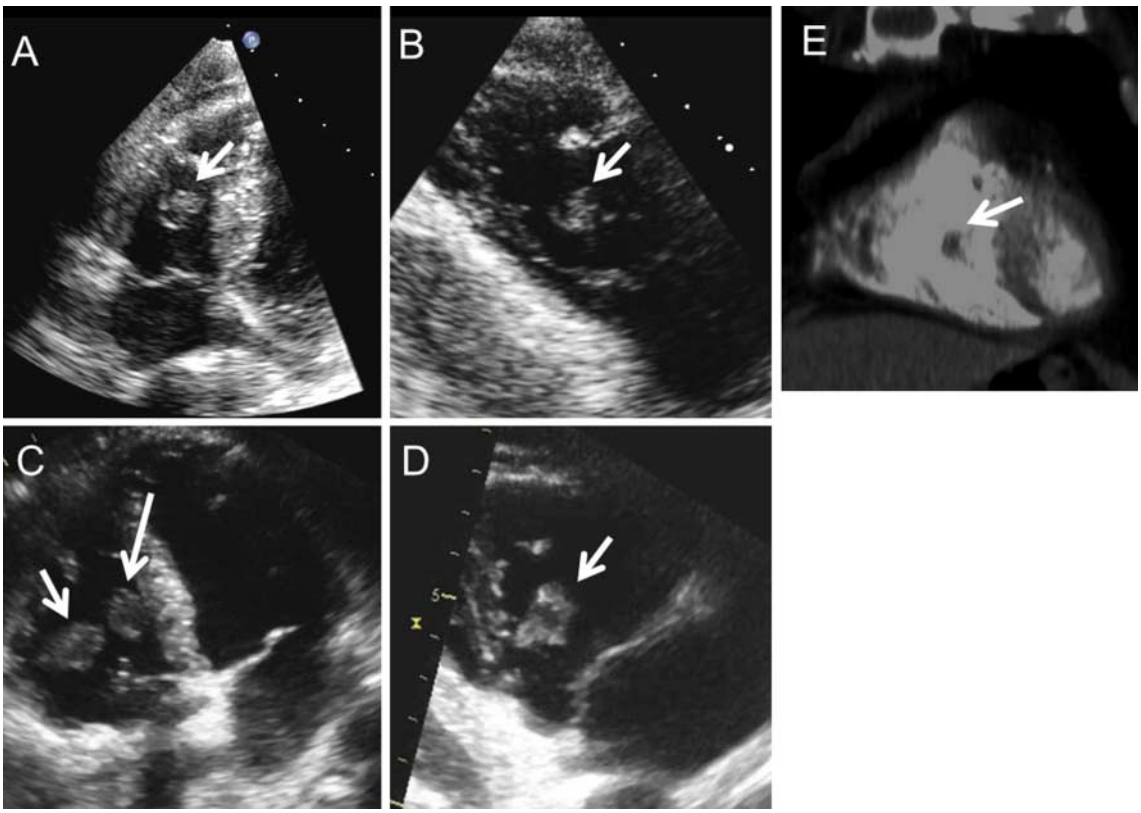

Figure 1
(A and B) Right ventricular mass (arrowed) attached to the tricuspid valve chordae apparatus on echocardiography, in apical four-chamber view, and modified parasternal right ventricular inflow view respectively; (C and D) repeat echocardiogram demonstrating enlargement of the original mass and an additional mass (longer arrow), in apical four-chamber view, and modified parasternal right ventricular inflow view. (E) Right ventricular mass on computerised tomography at patient's initial presentation.

echocardiogram 3 weeks after initial presentation demonstrated enlargement of the original mass and an additional mass (Fig. 1; Videos 3 and 4), implying that these were most probably marantic. We retrospectively reviewed the CT performed at first presentation, which also demonstrated the original right ventricular mass (Fig. 1). She died from recurrent embolic cerebrovascular events, confirmed on MRI, within a month from initial presentation. In advanced stages of malignancy, marantic endocarditis or non-bacterial thrombotic endocarditis can develop in hypercoagulable states. It has a rapidly progressive course, with embolisation of vegetations to other organs. The sterile vegetations consist of fibrin and platelets (1, 2). Patients should be anti-coagulated. In terminal cases, surgery rarely alters the final outcome (2, 3).

Video 1

The initial right ventricular mass attached to the tricuspid valve chordae apparatus on echocardiography, in modified parasternal right ventricular inflow view. Download Video 1 via http://dx.doi.org/10.1530/ERP-14-0066-v1

Video 2

The initial right ventricular mass attached to the tricuspid valve chordae apparatus on echocardiography, in apical four-chamber view. Download Video 2 via http://dx.doi.org/10.1530/ERP-14-0066-v2

Video 3

Repeat echocardiogram demonstrating enlargement of the original mass and an additional mass, in modified parasternal right ventricular inflow view. Download Video 3 via http://dx.doi.org/10.1530/ERP-14-0066-v3

Video 4

Repeat echocardiogram demonstrating enlargement of the original mass and an additional mass, in apical four-chamber view. Download Video 4 via http://dx.doi.org/10.1530/ERP-14-0066-v4

Declaration of interest
The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported.

Funding
This research did not receive any specific grant from any funding agency in the public, commercial or not-for-profit sector.

Patient consent
Patient deceased.

Author contribution statement
N Dewey wrote the manuscript. Dr L H Mughal was involved in patient's clinical management and treatment and reviewed the article before submission. Dr A R Houghton reviewed the article before submission. Dr J Khoo wrote the manuscript, was consultant of the patient and therefore involved in patient's clinical management and treatment, and reviewed the article before submission. Permission was obtained for the article.

References

1 Oueida Z & Scola M 2011 Ovarian clear cell carcinoma presenting as non-bacterial thrombotic endocarditis and systemic embolization. *World Journal of Oncology* **2** 270–274. (doi:10.4021/wjon367e)
2 Asopa S, Patel A, Khan OA, Sharma R & Ohri SK 2007 Non-bacterial thrombotic endocarditis. *European Journal of Cardio-Thoracic Surgery* **32** 969–701. (doi:10.1016/j.ejcts.2007.07.029)
3 El-Shami K, Griffiths E & Streiff M 2007 Nonbacterial thrombotic endocarditis in cancer patients: patholgenesis, diagnosis and treatment. *Oncologist* **12** 518–523. (doi:10.1634/theoncologist.12-5-518)

Received in final form 7 November 2014
Accepted 25 November 2014