Surgical resection of a rare left ventricular myxoma through right thoracotomy after Bentall procedure

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DESCRIPTION

Primary cardiac tumours are rare, the majority of which are myxomas, cardiac myxoma, the most common primary heart tumour, is located mainly in the left atrium (75%), followed by the right atrium (20%). In rare cases, myxomas can be found in the ventricles, and have been reported at a rate of 2.5% in the left ventricle.[1]

We present a case of rare left ventricular myxoma following the Bentall procedure.

An asymptomatic woman aged in her 40s was admitted to our medical centre for a left ventricular tumour that wasdiscovered incidentally during a follow-up postsurgery.

She had a history of 60 mm thoracic aneurysm of the ascending aorta with Marfan syndrome and effort angina due to compression of the right coronary artery by the aneurysm; she subsequently underwent the Bentall procedure through sternotomy 15 years prior.[2] Schematic representation of the Bentall procedure shows a composite aortic root and ascending aorta graft (25 mm Carbomedics mechanical valve and 26 mm intervascular woven graft) with mechanical aortic valve (figure 1A). Transoesophageal echocardiography and enhanced CT revealed a tumour located in the left ventricle (figure 1A,B).

There is a greater interest in right thoracotomy approaches to the heart, especially when these alternative access routes decrease the surgical risk and also do not compromise the quality of surgery via the standard approach.[3 4] Cardiac surgery was performed through right thoracotomy to avoid dissecting through adhesions from the previous sternotomy and to hard adhesions around the ascending aortic graft led us to abandon the use of an aortic cross clamp and instead perform the surgery under ventricular fibrillation and deep hypothermia.[5]

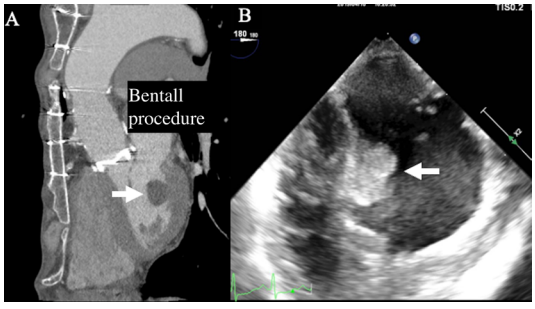


Figure 1 (A) Enhanced CT confirmed a mass (white arrow) located in the left ventricle. (B) Transthoracic echocardiographic findings confirmed a mass (white arrow) located in the left ventricle.

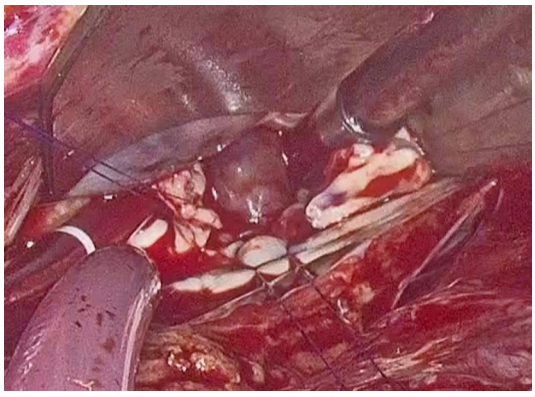
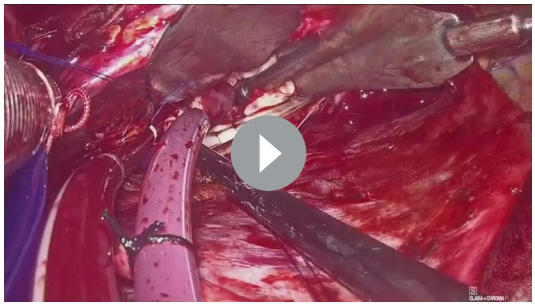


Figure 2 Surgical findings. Following incision of the left atrium, a mobile red dense tumour, measuring approximately 17×15×8 mm, was found through the mitral valve with good surgical view. The tumour was attached to the posterior wall of the left ventricle by a narrow stalk; it was completely resected.

Following incision of the left atrium, a mobile red dense tumour, measuring approximately 17×15×8 mm, was found through the mitral valve with good surgical view (figure 2, video 1). The tumour, which was attached to the posterior wall of the left ventricle by a narrow stalk, was completely resected. The patient recovered well and was discharged 10 days after the operation.

Histological examination revealed that the tumour was composed of abundant loose myxoid stroma with scattered round, polygonal or stellate cells with dense irregular nuclei resembled benign myxoma. The patient is alive and well 28 months after resection of the cardiac tumour.



Video 1 Surgical findings. Following incision of the left atrium, a mobile red dense tumour, measuring approximately 17×15×8 mm, was found through the mitral valve with good surgical view. The tumour was attached to the posterior wall of the left ventricle by a narrow stalk; it was completely resected.

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We report a rare case of left ventricular myxoma following the Bentall procedure.

Learning points

- We present a rare case of left ventricular myxoma following the Bentall procedure.
- A right thoracotomy approach avoided dissecting through adhesions from a previous surgery and allowed for a better surgical view.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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