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Issam Abouliatim, Hervé Corbineau, Vito Giovanni Rugierri, Erwan Flecher,
Annaik Bellouin, Alain Leguerrier

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Mitral Valve Varix

I. Abouliatim, MD; H. Corbineau, MD; V.G. Rugierri, MD; E. Flecher, MD;
A. Bellouin, MD; A. Leguerrier, MD

A 39-year-old man presented with atypical angina and hemoptysis. This soldier traveled regularly to the Middle-East and Africa. Initial clinical examination was within normal limits, as were also the ECG, biochemistry, and hematologic blood samples. Transthoracic echocardiography showed an intracardiac multilobe cyst fixed to the anterior papillary muscle and on the anterior mitral leaflet (A2) (online-only Data Supplement Movie I). Doppler mode revealed associated trivial mitral regurgitation (online-only Data Supplement Movie II). Magnetic resonance imaging showed an enhancing cystic lesion fixed on the anterior papillary muscle (Figure 1): low signal intensity noted on T1-weighted images and higher signal intensity on T2-weighted images.

It was decided to remove the tumor, taking into account the embolic risk¹ of this very mobile mass and the theoretical risk of rupture of a hydatid cyst. Indeed, echinococcosis infestation by rupture of the cyst is not rare, and this serious complication may cause death by anaphylactic shock.²

The operation was performed under cardiopulmonary bypass through median sternotomy. The left atrium was opened and revealed first a patent foramen oval, secondarily closed.

The mitral valve was then explored, and the large cyst fixed on A2 and on the anterior papillary muscle was identified (2.5×1.5 cm) (Figures 2 and 3). In case of supposed echinococcosis of the heart, the encapsulated mass was first punctured (10 mL of blood was extracted, and bacteriological examination of this sample eliminated echinococcosis); then the cyst was sterilized by injection of 20% hypertonic saline solution.³

The cyst's root was developed within the top of anterior papillary muscle. Three chordae from the free edge of A2 were found adhering to the cyst and had to be cut. Mitral valve regurgitation was then corrected using 2 artificial Gore-Tex chordae. The histopathological diagnosis of the explanted mass (Figure 4) was varix with microscopic sections (Figures 5 and 6) showing an endothelium (red arrows) lying on 1 elastic lamina definitely identifiable and respected everywhere (arrows). The postoperative course was uneventful, and the patient was discharged on the 11th day with minimal residual mitral regurgitation (grade 1).

Primary cardiac tumors are rare, and among them cardiac varices are an exceptional entity.^{4,5} These are dilated throm-

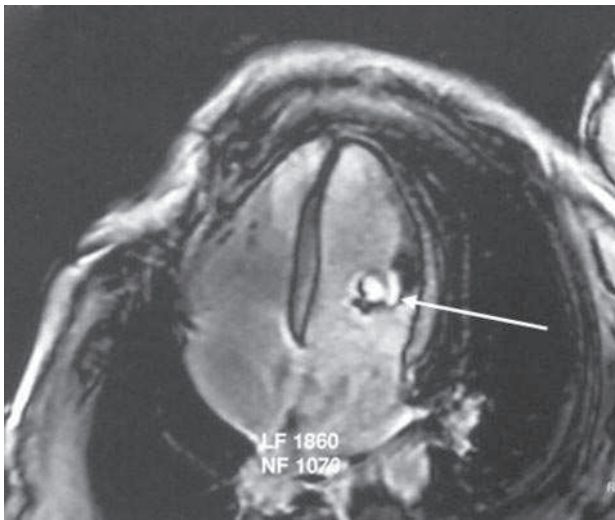


Figure 1. Magnetic resonance imaging with an enhancing cystic lesion fixed on the anterior papillary muscle.

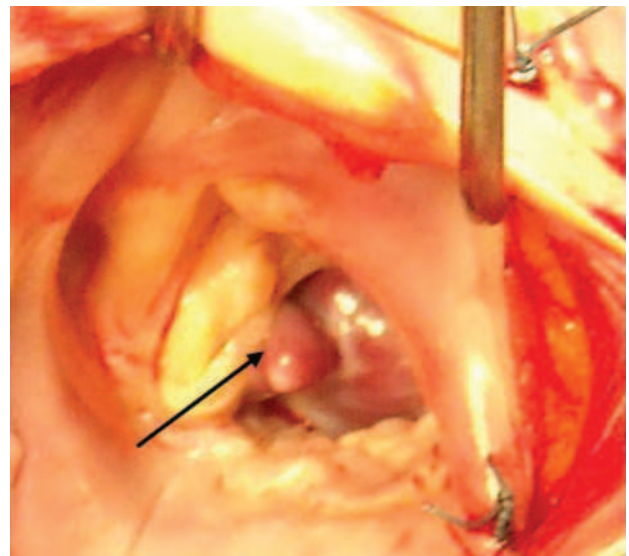


Figure 2. Intraoperative view of the opened left atrium with the varix fixed on the mitral valve (A2).

From the Department of Cardiothoracic and Vascular Surgery (I.A., H.C., V.G.R., E.F., A.L.) and Department of Cardiology (A.B.), Pontchaillou Hospital, Rennes, France.

The online-only Data Supplement is available with this article at <http://circ.ahajournals.org/cgi/content/full/119/19/e529-e530/DC1>.

Correspondence to Issam Abouliatim, MD, Service de Chirurgie Cardio-thoracique et Vasculaire, Centre Hospitalier Universitaire Pontchaillou, 2 rue Henri Le Guilloux, 35000 Rennes, France. E-mail issam.abouliatim@chu-rennes.fr

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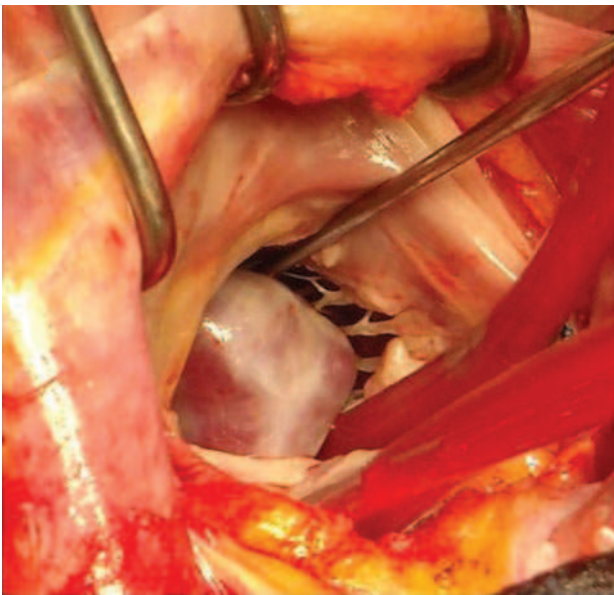


Figure 3. Intraoperative view showing the varix itself just under the anterior leaflet of the mitral valve.



Figure 4. Macroscopic view of the explanted varix.

bosed veins usually mistaken for myxomas and are more often found in the right atrium. A Medline search did not reveal any previous case of cardiac varix at this location.

Disclosures

None.

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Figure 5. Microscopic sections (orceine $\times 4$) showing an endothelium (red arrows) lying on 1 elastic lamina definitely identifiable and respected everywhere.

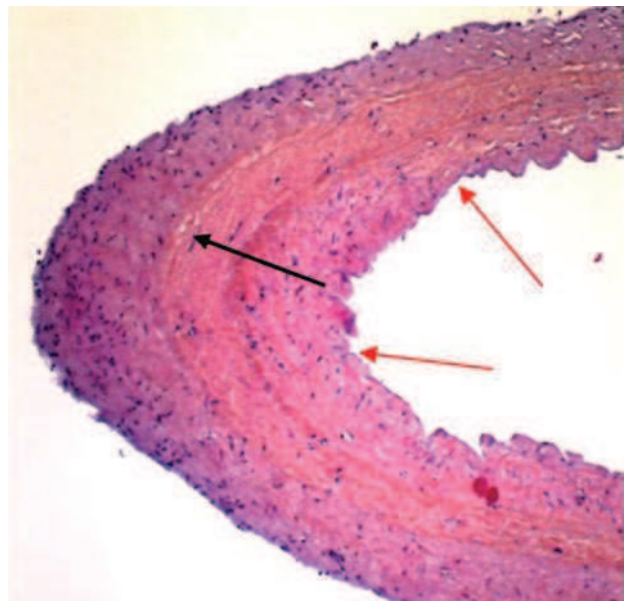


Figure 6. Microscopic sections (HES $\times 10$) showing the endothelium and the elastic lamina.

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