Thrombectomy After Failed Fibrinolysis in Prosthetic Tricuspid Valve Thrombosis

To the Editor:

Prosthetic valve thrombosis is a complication basically related to mechanical prostheses and in the majority of cases is due to suboptimal anticoagulation. In addition, the use of mechanical prosthesis in the tricuspid position is limited by the high rate of prosthetic valve thrombosis due to the slower flow in the right heart cavities. It was traditionally considered that fibrinolysis was the treatment of choice in these cases.

We present the case of a tricuspid prosthetic valve thrombosis which was initially treated with fibrinolysis and then with surgical thrombectomy, since there was no observed improvement in the clinical and echocardiographic parameters.

The patient was a 56-year-old woman with Ebstein’s anomaly who underwent a mechanical prosthesis implant St. Jude number 31. On the eleventh day post surgery she presented several episodes of resting presyncope with no evidence of electrocardiographic anomalies. In the 48 hours prior to this, oedemas appeared on the lower extremities with fovea and jugular ingurgitation. The prosthetic click was absent on auscultation. The patient was anticoagulated with acenocoumarol and presented an INR of 2.4.

The trans-thoracic echocardiogram showed abundant spontaneous echo contrast in the right atrium and the medial hemidisc was immobile. Through the Doppler, the flow of tricuspid filling presented a mean gradient of 21 mm Hg and a velocity of 2.5 m/s obtained in sinus rhythm. The study was completed with a transoesophageal echocardiogram, which confirmed these findings and also showed a thrombus of 12×13 mm on the lateral hemidisc (Figure 1).

Fibrinolysis was performed with rt-PA (10 mg in bolus followed by perfusion of 90 mg) and perfusion of sodium heparin. 24 hours later, the patient presented stable hypotension (90/40 mm Hg) and required high-flow oxygen therapy to maintain saturation. The helicoid computerised tomography excluded pulmonary thromboembolism.

A new echocardiographic control was carried out, with no variation with respect to the previous study, so the decision was made to intervene surgically. Inspection of the prosthesis during surgery revealed, a thrombus that surrounded the whole prosthetic ring and prevented movement of one of the hemidiscs. This was completely removed (Figure 2). The prosthesis was not replaced as it
Letters to the Editor

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REFERENCES


