

Bioprosthetic Tricuspid Valve Dehiscence

in a Patient with Ebstein Anomaly

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A 26-year-old man was referred to our echocardiography department for further evaluation of lower-extremity edema and significant ascites. At the age of 10 years, he had experienced severe tricuspid valve regurgitation associated with Ebstein anomaly; his tricuspid valve was replaced with a bioprosthetic valve. After the operation, the patient had been lost to follow-up; he returned for examination when he became symptomatic. The patient had a history of dyspnea, which had worsened during the 3 to 4 months before the current visit. He also reported that the ascites and edema had worsened during the last year. At the current admission, transthoracic echocardiography (TTE) showed a severely enlarged right ventricle and greatly reduced right ventricular function (Fig. 1); TTE also revealed dehiscence of the bioprosthetic valve (Fig. 2). Transesophageal echocardiography confirmed severe valvular leakage and almost no flow from the bioprosthetic valve (Fig. 3); in addition, the valve had detached from the medial side of the leaflet. Because of the severely enlarged right ventricle and greatly reduced right ventricular function, the only option for treating this patient was heart transplantation. He underwent successful heart transplantation and had an uneventful postoperative course.

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Comment

The common feature in all cases of Ebstein anomaly is the apical displacement of the septal tricuspid valve leaflet. In our patient, apical displacement of the tricuspid valve leaflets was not seen during the current admission, because of surgical resection of the native tricuspid valve and annular placement of the bioprosthesis; in addition, the right ventricle was severely enlarged.

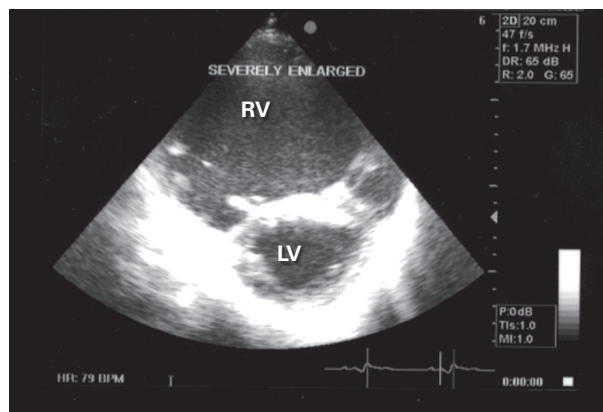


Fig. 1 Transthoracic echocardiogram in short-axis view shows the left ventricle and the severely enlarged right ventricle.

LV = left ventricle; RV = right ventricle

Real-time motion image is available at www.texasheart.org/journal.

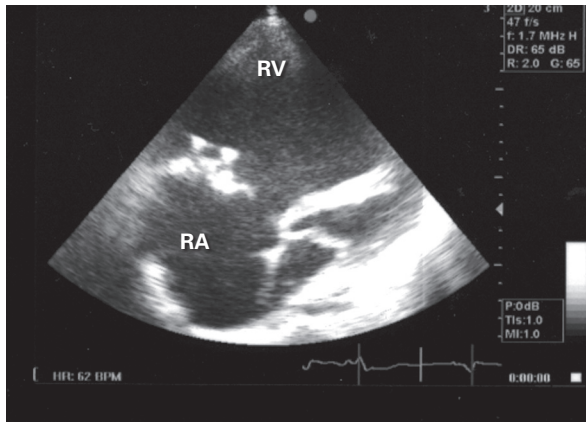


Fig. 2 Transthoracic echocardiogram in 4-chamber view shows the severely enlarged right ventricle and dehiscence of the bioprosthetic tricuspid valve.

RA = right atrium; RV = right ventricle

Real-time motion image is available at www.texasheart.org/journal.

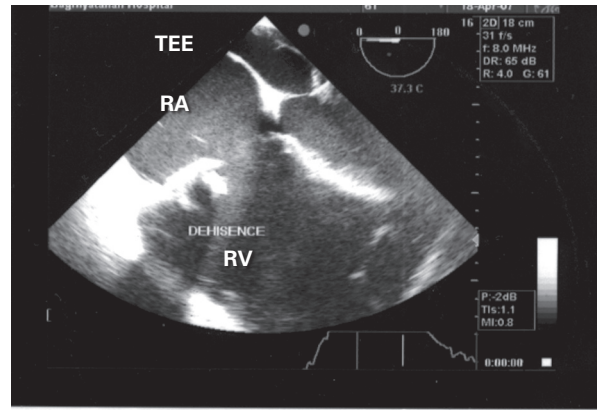


Fig. 3 Transesophageal echocardiogram in 4-chamber view confirms dehiscence of the bioprosthetic tricuspid valve.

RA = right atrium; RV = right ventricle; TEE = transesophageal echocardiography