

Image in cardiology

# An Unusual Case of Tricuspid Regurgitation



## Un caso inusual de insuficiencia tricúspide

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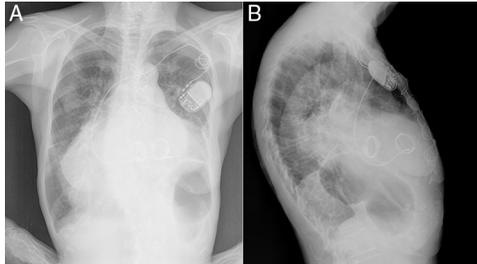


Figure 1.

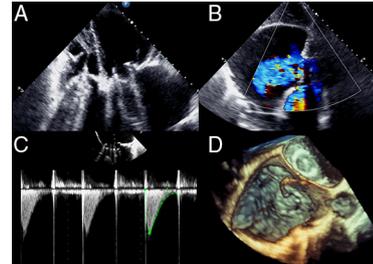


Figure 2.

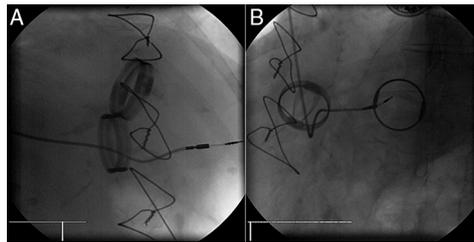


Figure 3.

We present the case of a 74-year-old woman who was referred to us with dyspnea on mild exertion. The patient had undergone surgical commissurotomy to treat rheumatic mitral stenosis at the age of 28 years, and 29 years later, underwent a second intervention for mitral and tricuspid valve replacement with a double mechanical prosthesis. Ten years before coming to us, she had had surgery at another center for pacemaker implantation due to atrioventricular block; since then, she had not undergone follow-up. In addition to marked cardiomegaly attributable to enlargement of the right chambers, the radiographic study (Figure 1A and 1B) showed the end of the pacemaker lead passing through the tricuspid valve prosthesis and into right ventricle. A transthoracic echocardiogram confirmed the passage of the lead through the prosthesis, which was somewhat thickened and showed evidence of fibrosis, and was associated with severe regurgitation (Figure 2A and 2B, videos 1-3 of the supplementary material). Subsequent transesophageal echocardiography showed a normally functioning mitral valve prosthesis and confirmed the findings of the transthoracic study (Figure 2C, transmitral gradients; Figure 2D, reconstruction of the tricuspid valve prosthesis; videos 4-6 of the supplementary material). The images obtained by fluoroscopy (Figure 3A and 3B, videos 7 and 8 of the supplementary material) demonstrated the interaction between prosthesis and lead, which impeded the closure of the medial hemidisc of the former during systole. After 3 years of follow-up, the patient remains in New York Heart Association class II and refuses to undergo an intervention to remove the lead.

This case, the first in the literature, shows that the passage of a permanent pacemaker lead through a bileaflet mechanical prosthesis is unacceptable, as it triggers severe valve regurgitation and increases the risk of degeneration of the lead and of the prosthesis itself over time.

### SUPPLEMENTARY MATERIAL



Supplementary material associated with this article can be found in the online version available at [doi:10.1016/j.rec.2015.07.028](https://doi.org/10.1016/j.rec.2015.07.028).

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