

An unique case of “Atypical Ebstein’s Anomaly” with only isolated displacement of the inferior tricuspid leaflet

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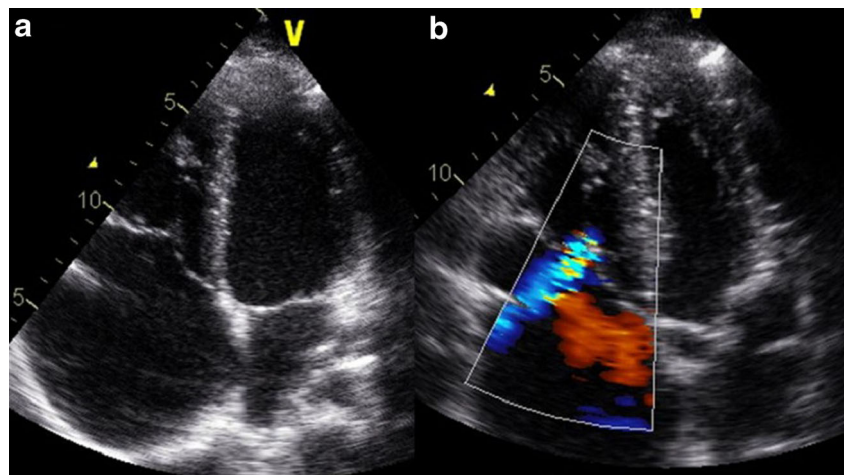
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A 20-year-old sportive male presented with palpitations. Two-dimensional transthoracic echocardiography showed a severely dilated right atrium and a dislocated lateral tricuspid valve towards the right ventricular apex (Fig. 1a) with grade II tricuspid regurgitation (Fig. 1b). The 3D delayed enhancement study by cardiac MRI confirmed that the inferolateral leaflet of the tricuspid valve was 2.7 cm displaced apically, and septal and anterior leaflets were normally implanted (Fig. 2a

and b). No intracardiac shunting was found. We conclude that this represents a not previously described form of Ebstein’s anomaly in which the septal and anterior leaflets were not displaced.

In a typical Ebstein’s anomaly, the septal and inferior leaflets of the tricuspid valve are displaced apically [1] and the anterior leaflet is excessively large, and abnormally attached to the right ventricular free wall [2].

Fig. 1 a and b. A 2D transthoracic echocardiogram (apical 4-chamber view) showing severe dilatation of the right atrium (RA) and apical displacement of the lateral leaflet (LL) of the tricuspid valve towards the apex (a). There is moderate grade II tricuspid regurgitation (b)

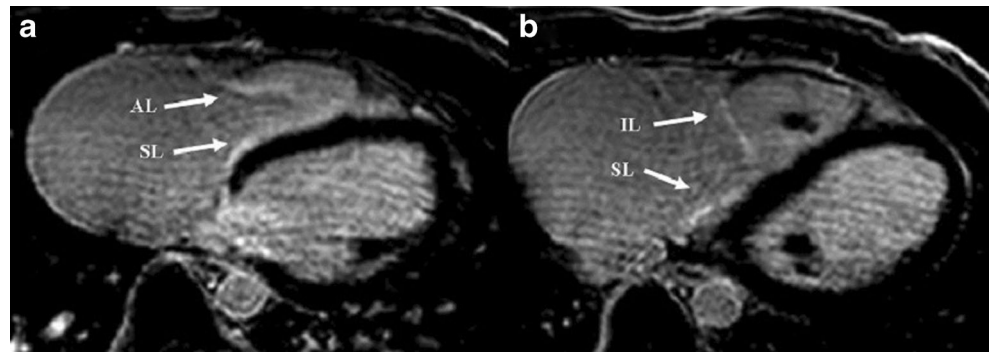


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Fig. 2 a and b. A cardiac MRI showing the dislocated inferior leaflet and the normally implanted septal and anterior leaflets as demonstrated by 3D delayed enhancement imaging (**a** and **b**)



To the best of our knowledge, this is the first reported case of an isolated displacement of the inferior tricuspid valve leaflet in Ebstein's anomaly.

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References

1. Diagnosis and Management of Adult Congenital Heart Disease. Sondergaard L and Cullen S. p283–287 Ebstein Anomaly.
2. Zuberbuhler JR, Allwork SP, Anderson RH. The spectrum of Ebstein's anomaly of the tricuspid valve. *J Thorac Cardiovasc Surg.* 1979;77(2): 202–11.