

Image in cardiology

Scimitar Syndrome: The Role of Cardiac Magnetic Resonance



Síndrome de la cimitarra: papel de la cardiiorresonancia

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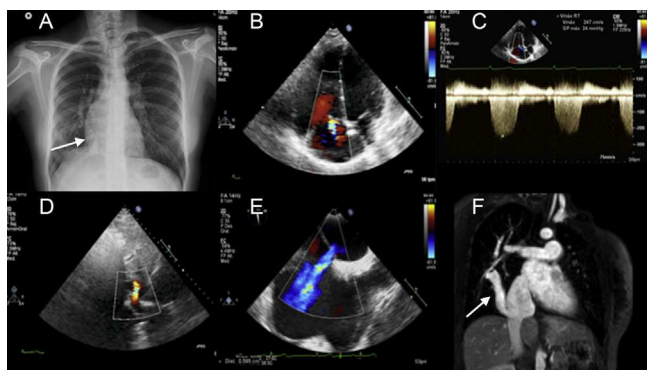


Figure 1.

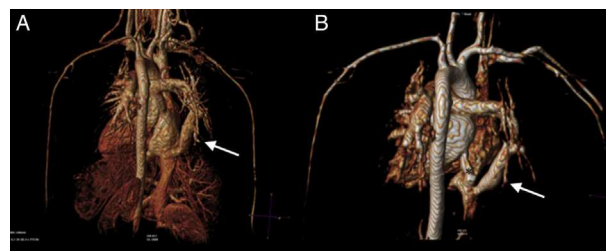


Figure 2.

A 35-year-old woman with no relevant medical history presented with dyspnea on moderate exertion. Physical examination detected a mild mid-systolic murmur, and the electrocardiogram showed negative T waves in the right precordial leads. On chest radiography, the right lung was mildly hypoplastic and showed a linear opacity (Figure 1A, arrow), corresponding to a vascular structure (scimitar sign). Transthoracic echocardiography showed dilation of the right chambers with no pulmonary hypertension, and venous flow entering the inferior vena cava (Figures 1B–D). The transesophageal echocardiogram additionally revealed an ostium secundum atrial septal defect with a left-to-right shunt (Figure 1E). Magnetic resonance imaging confirmed the diagnosis of a large supradiaphragmatic right pulmonary vein draining into the left inferior vena cava adjacent to the right atrium (Figures 1F and 2A, arrow).

Based on the patient's symptoms and the significant systemic-pulmonary shunt (Q_p/Q_s , 1.9:1.0), a decision was made to perform corrective surgery of the partial anomalous pulmonary venous drainage. The atrial septal defect was widened and a polytetrafluoroethylene tube was placed within the right atrium, redirecting flow from the inferior vena cava to the left atrium through the defect. The patient was discharged 7 days postprocedure, with no complications. At 3 weeks, cardiac magnetic resonance showed that the tube was patent (Figure 2B, asterisk) and the size of the right ventricle had returned to normal. At 6 months, the patient was asymptomatic.

In this case, cardiac magnetic resonance imaging enabled confirmation of the diagnosis of partial anomalous pulmonary drainage, selection of the best surgical technique, and precise patient follow-up.

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