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The term “fixed” denotes absence of significant respiratory variation of A2-P2 and is a classic feature of ostium secundum atrial septal defect. Although the mechanism is incompletely understood, one hypothesis suggests that reciprocal respirophasic augmentation of systemic venous return and left-to-right shunting (ie, increased systemic venous return and decreased shunting with inspiration; vice versa with expiration) are key hemodynamic features. The cumulative effect is relatively static right ventricular stroke volume throughout the respiratory cycle. In the isolated right bundle-branch block, the A2-P2 interval is wide but still shows respirophasic changes. The systolic ejection murmur results from increased flow across the right ventricular outflow tract, and occasionally a soft diastolic rumble originating from the tricuspid valve is present.

The patient underwent successful percutaneous device closure with a 34-mm Amplatzer septal occluder. A preprocedure transesophageal echocardiogram with 3-dimensional imaging was performed; an oval shaped atrial septal defect was identified, with the major axis measuring 26 mm (Figure 2; Movie III in the Data Supplement). The calculated shunt fraction (Qp:Qs) was 3:1 before percutaneous device closure. There was no residual shunt postprocedure.

Disclosures
None.

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References


Key Words: atrial septal defect • blood pressure • bundle-branch block • heart murmurs • stroke volume

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