

Transcatheter Amplatzer septal occluder closure of residual ASD shunt: following StarFlex spring protrusion

A 15-year-old girl was diagnosed as having secundum atrial septal defect (ASD) at infancy. Transcatheter closure of the ASD was performed at 4 years of age, using a StarFlex 33 mm device (NMT Medical, Boston, Massachusetts). One week following implantation, a small residual shunt was noted. Within the first year following the procedure, a protrusion of one of the right-sided nitinol centring springs developed, and the left-to-right shunt had increased (figure 1).

After 10 years of clinical follow-up, the girl was asymptomatic, but the residual shunt increased, and closure was indicated.

A transcatheter closure of the residual shunt was successfully performed by implanting a second 12 mm Amplatzer Septal Occluder (ASO) (AGA Medical Corporation, Plymouth, Minnesota) (figure 2).

The second device embraced and grabbed the StarFlex, straightening the protruding spring (figure 3). A surgical approach could be the treatment of choice for a protruding spring of the StarFlex device and closure of the residual shunt. We present the transcatheter approach as an attractive alternative to surgery.

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Competing interests None.

Patient consent Obtained.

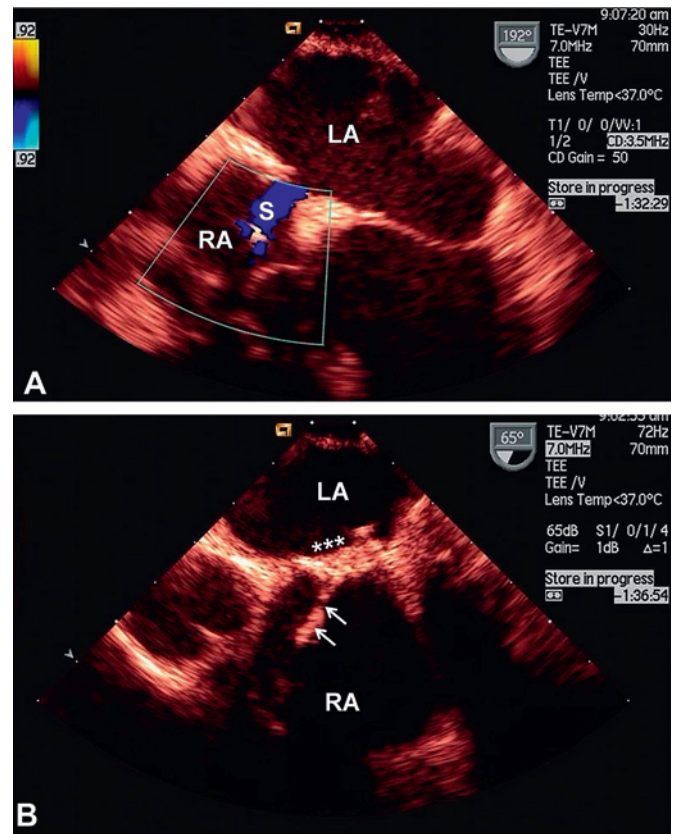


Figure 1 Transoesophageal echo (TEE). (A) Residual left-to-right shunt (S) through the StarFlex device. (B) StarFlex device (astrix) with protruding spring (arrows) into the right atrium (RA). LA, left atrium.

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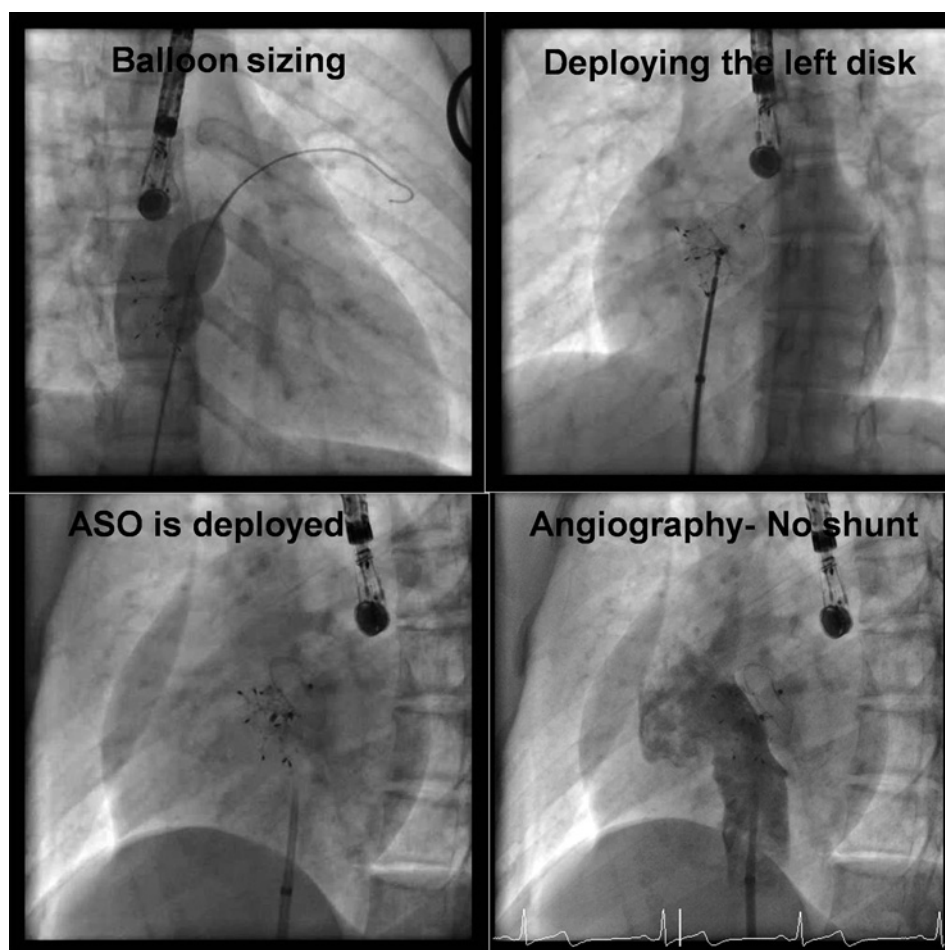


Figure 2 Implanting the 12 mm Amplatzer Septal Occluder (ASO) closing the residual shunt through the StarFlex 33 mm device and straightening the protruding spring.

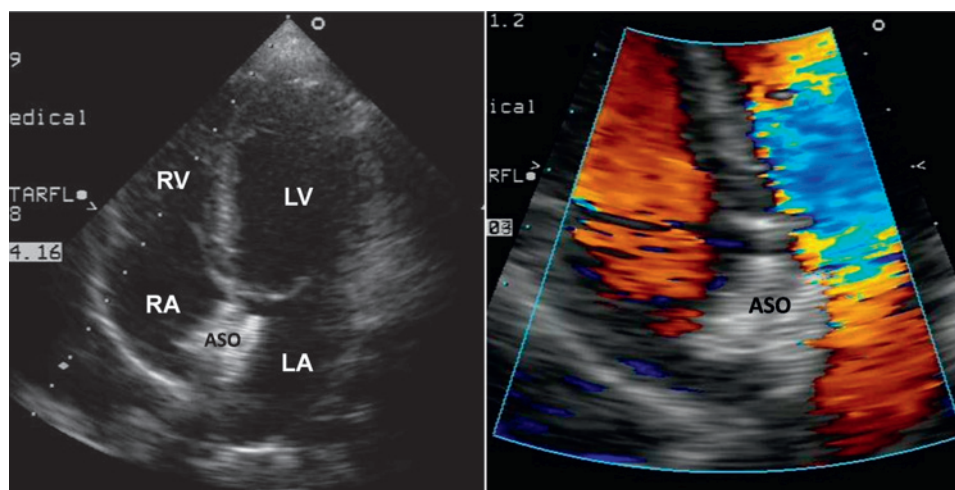


Figure 3 Trans-thoracic echocardiography demonstrating the final result with an appropriate position of the Amplatzer Septal Occluder (ASO) with no residual shunt and no bulging StarFlex spring. LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle.