

Closure of the iatrogenic cleft in mitral valve in two years old child

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Objective: Iatrogenic cleft or hole may occur as a rare complication after surgery in the mitral valve. Surgery is the approved treatment modality. However, interventional methods also provide solutions for the treatment of paravalvular leakage which develop during valve replacement in adult cases. There is no literature study on the interventional closing of mitral valve cleft in children. We present a case of a two-year-old who underwent an interventional closure of iatrogenic mitral valve cleft.

Results : At the age of 2 days during the neonatal period, the patient was scheduled for cardiology follow-up following detection of a heart murmur due to aortic outflow tract stenosis, mild stenosis in the subaortic ridge membrane and isthmus aorta, and mild mitral insufficiency diagnosed during echocardiographic examination. She was operated on at the age of 16 months following detection of a subaortic maximal gradient of 63 mmHg and a mean gradient of 34 mmHg. Membrane resection was performed in the patient who was diagnosed with a subaortic fibromuscular ring during surgery. She was discharged on postoperative 12th day following a problem-free postoperative period. Postoperative echocardiography of the patient revealed anterior mitral valve insufficiency with a cleft of 3-4 mm in diameter. She was scheduled for follow-up with ACE inhibitor therapy. However, there was a significant increase in the left atrial diameter (32x30mm) and an increase in the diameter of the mitral anterior cleft and of the insufficiency. Patient was taken in for catheterization under general anesthesia, with prophylaxis and thromboprophylaxis for endocarditis. The 5mm cleft in the mitral valve was safely closed with Amplatzer Ductal Occluder II (Figure 1). No mitral insufficiency flow was detected in transesophageal echocardiography. The patient was discharged with oral thromboprophylaxis therapy. Follow-up results demonstrated a decrease in left atrial diameter (22x20mm) and no valvular insufficiency apart from the pre-existing central minimal insufficiency in the mitral valve.

Conclusion: It is possible to perform interventional closure of clefts in the mitral valve on the right patient and under appropriate positions. This is the first case in which the mitral cleft is closed with ductal occluder in children.

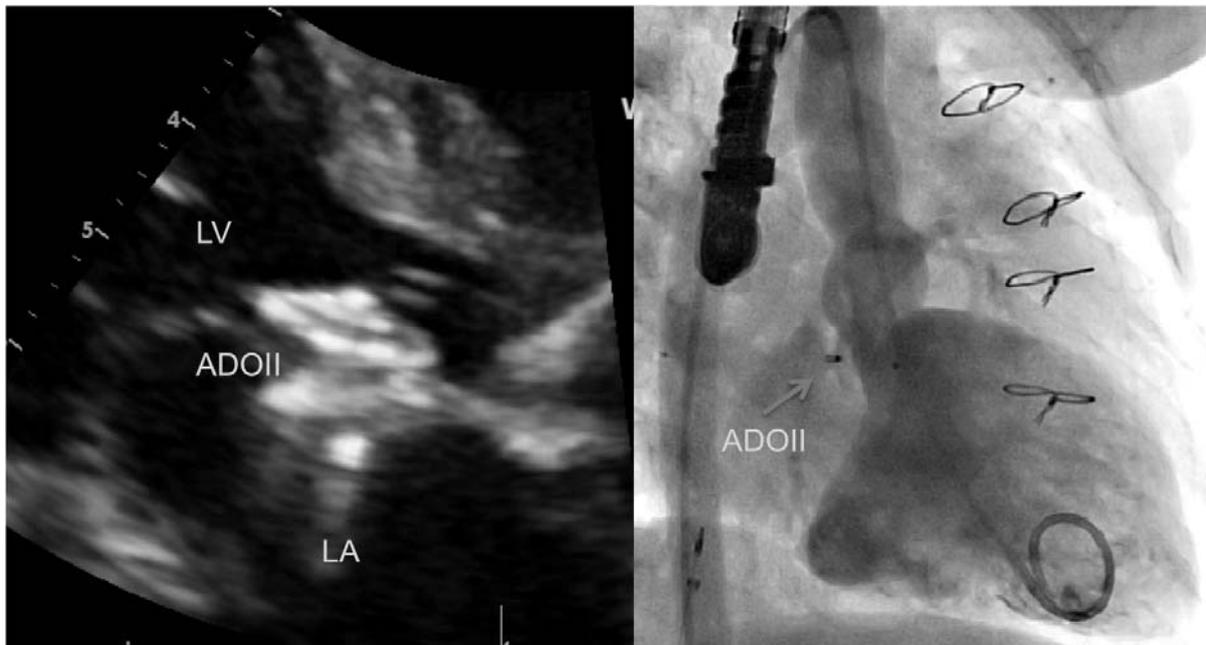


Figure 1