

Successful treatment of tortuous abdominal aorta-right atrial fistula by vascular plug: a previously unreported cardiac malformation

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Objective

Aorta-right atrial fistula is a rare congenital anomaly characterized by a fistulous communication between the aorta and the right atrium. We report a child in whom a fistula connected the descending abdominal aorta to the right atrium.

Methods

A 2- year-old asymptomatic boy was referred to our institute for evaluation of a murmur.

Results

The physical examination was normal apart from a continuous murmur, which was best audible at the left upper sternal border. The electrocardiogram was normal with no evidence of volume overload or chamber hypertrophy. Chest X-ray showed no abnormalities. During echocardiographic examination, a small shunt from the proximal descending aorta to the main pulmonary artery was seen. The diagnosis of patent ductus arteriosus (PDA) was made. Left ventricle was slightly dilated with good function, intact ventricular septum, normal aortic and pulmonic valves, and normal aortic arch with no aortic coarctation but extra cardiac a structure as parallel to vci was opened into right atrium. Computed tomography angiography confirmed the diagnosis and delineated the anatomy. Cardiac catheterization was done to confirm the diagnosis and possibly attempt closure of the PDA and aorto-right atrial fistula. Right and left heart catheterization were done and confirmed the diagnosis of the very small PDA, unusual communication and tortuous fistula , which originated from the descending abdominal aorta to the right atrium. The fistula ended in a sac beside the junction of the inferior vena cava with the RA, which opened into the RA with a large orifice. The anomaly was successfully treated by closing the proximal of fistula using an Amplatzer vascular plug IV.

Conclusions

This is a previously unreported cardiac malformation. We were successfully closed by trans-catheter embolisation using an Amplatzer vascular plug IV.

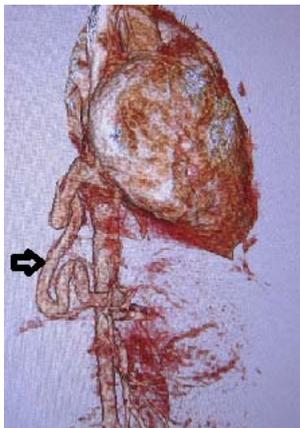


Figure-1: Computed tomography angiography image showing a tortuous fistula (arrow), which originated from the descending abdominal aorta to the right atrium.