51st Annual Meeting of the Association for European Paediatric and Congenital Cardiology*

Transcatheter Closure of Right Pulmonary Artery to Left Atrial Fistula via Amplatzer Muscular VSD Occluder Device

Karagöz Tevfik, Gümüştaş Mehmet

HACETTEPE UNIVERSITY

Faculty of Medicine

Department of Child Health and Diseases

Pediatric Cardiology Unit

ANKARA TÜRKİYE

dr_gumustas @yahoo.com

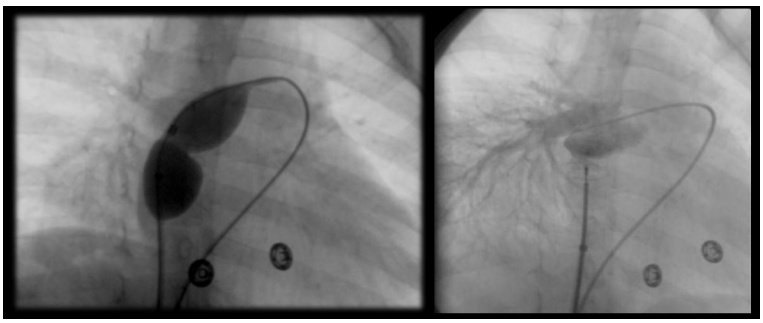
mehmetgumustas @hacettepe.edu.tr

A fistula formation between the right pulmonary artery (RPA) and the left atrium (LA) is a very rare cyanotic congenital heart disease and the traditional treatment involves surgery. In this article, transcatheter closure of a right pulmonary artery to left atrial fistula in a patient is reported.

Case report

The history of a 4 year-old girl revealed that she had cardiac catheterization and a thorax CT as a result of having cyanosis and heart murmur at birth. She was referred for a surgery when these investigations revealed a right pulmonary artery to left atrial fistula. On examination, she had cyanosis (SO2=63% in room air), digital clubbing and effort intolerance (NYHA Class II-III). Cardiac MRI and MR Angiography showed a 9x11 mm fistula with a length of 1.6 cm, between the inferior branch of the right pulmonary artery and the right pulmonary veins. On cardiac catheterization, RPA showed dilatation and the inferior branch of the RPA, along with the right pumonary veins via a large fistula, was draining to an aneurysmatic sac and then to the left atrium. A guide wire was advanced into the sac passing through the fistula via the RPA and the small ASD antegradely. An arteriovenous loop was established using a snare. The diameter of the narrowest portion of the fistula was measured as 11 mm with the baloon. 12 mm Amplatzer Muscular VSD Occluder Device was advanced antegradely and the fistula was closed successfully (Figure 1). Serial radiographs obtained after repetitive injections of contrast material via a catheter left inside the pulmonary artery, revealed that the location of the device was right and there was no evidence of leakage. After the intervention, patient's oxygen saturation in room air increased up to 97%. Patient was prescribed aspirin and was discharged.

Figure 1



Discussion

Congenital right pulmonary artery to left atrium fistula is seen rarely and is hard to diagnose as it does not present with any distinct signs other than central cyanosis. There have been only a few cases reported in the literature where fistula closure is performed with the Amplatzer Muscular VSD Occluder Device. In select cases, transcatheter closure is a safe alternative to the surgical approach.