

Incidentally detected small fistulous flows in pulmonary artery by color Doppler; echocardiographic findings and follow-up results

Atik S. U., Saltik I. L., Eroglu A. G.

Istanbul University Cerrahpasa Medical Faculty, Istanbul, TURKEY

Abnormal small fistulous flows in pulmonary artery can be detected on routine TTE examination in asymptomatic patients. Although they are strongly thought to be coronary fistulas, it is still controversial to manage these asymptomatic patients. Here in, we described the clinical characteristics and follow-up results of small fistulous flows in pulmonary artery which was incidentally detected on routine TTE examination in 82 patients.

Materials and methods

The study population consisted of 82 patients with abnormal small fistulous flows in pulmonary artery who had been studied at our institution between 1992 and 2016.

Results

Most of the patients (% 65.5) were male. The mean age at diagnosis was 4.9 ± 4.7 years (range 16 days to 26 years). The patients were followed during a median of 23 months up to 12 years. The echocardiography indication was cardiac murmur in 39 (47.5%), routine cardiac control in 24 (29%), nonspecific chest pain in 11 (13.5%), and the rest for other reasons. Coronary arteries were evaluated as normal except 3 patients with mild left coronary artery dilatation. Additional cardiac anomalies were ventricular septal defect in 7, atrial septal defect in 4, patent ductus arteriosus in 4, mitral valve prolapse in 3, mitral and/or aortic insufficiency in 7. These fistulous flows were detected in three different regions in parasternal aorta short axis view. In 59 (72%) patients, fistulous flow located in anterior aspect of main pulmonary artery (between pulmonary valve and bifurcation), in 17 (20.7%) patients in aortic side of pulmonary artery and in 7 (7.3%) patients in right pulmonary artery. As a further and invasive investigation, cardiac catheterization was performed in only 3 of 82 patients for different reasons. Echocardiographic diagnose of coronary artery to pulmonary artery fistula was confirmed with selective coronary angiography in these three patients. Spontaneous closure was detected in only one patient, the others remained almost unchanged during the follow-up.

Conclusion

We believe that although they are thought to be coronary fistulas, most asymptomatic pediatric patients with small fistulous flows in pulmonary artery may be managed conservatively and require no further investigation.