Trilogy of Fallot: a case report

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Goal: To present a 24-year-old patient with a diagnosis of Trilogy of Fallot who underwent cardiac surgery.

Case presentation: The patient has been followed for a long time under the diagnosis of pulmonary stenosis (since childhood) with verification of mild to moderate pulmonary stenosis. Four years ago, he noticed cyanosis of the lips during daily activities, and lung pathology was ruled out. He presents for a consultative opinion, where transthoracic echocardiography is performed, which verifies the right atrium with a diameter of 4.5 cm, the right ventricle with regular dimensions (tricuspid annular plane systolic excursion (TAPSE) 21 mm, fractional area change (FAC) 34%, free wall thickness 17 mm), inferior vena cava 2.2 cm, and respiratory collapse more than 50%. Severe pulmonary stenosis is verified (peak pulmonary valve velocity (Vmax) 6 m/s, peak gradient 85 mmHg) with mild pulmonary regurgitation. The systemic flow ratio (Qp/Qs) ratio was 0.98. The bubble test demonstrated the movement of microbubbles from the right to the left atrium, and the transesophageal echocardiography verifies the existence of a type secundum ASD measuring 1.7 cm (**Figure 1**). Cardiac computerized tomography (CT) with contrast is performed. Analysis of the area of the right ventricular outflow tract (RVOT) shows that it is more slender so that at a distance of 12 mm distal to the pulmonary valve, the diameter is 11 mm, and at the level of the pulmonary valve 17 mm (Figure 1). Truncus pulmonalis diameter is 27 mm, the right pulmonary artery is 20 mm, and the left 19 mm. There are no definite CT signs of persistent ductus arteriosus, and slightly more prominent bronchial arteries, especially the upper right (diameter 5 mm). The patient presents himself to the cardiac surgery council and is accepted for cardiac surgical treatment.

Conclusion: Follow-up of pulmonary stenosis in the pediatric population should also be performed with transesophageal echocardiography in order to evaluate the interatrial septum.[1,2] Catheterization of the right heart with assessment of pressure in the pulmonary circulation forms the basis for cardiosurgical treatment.

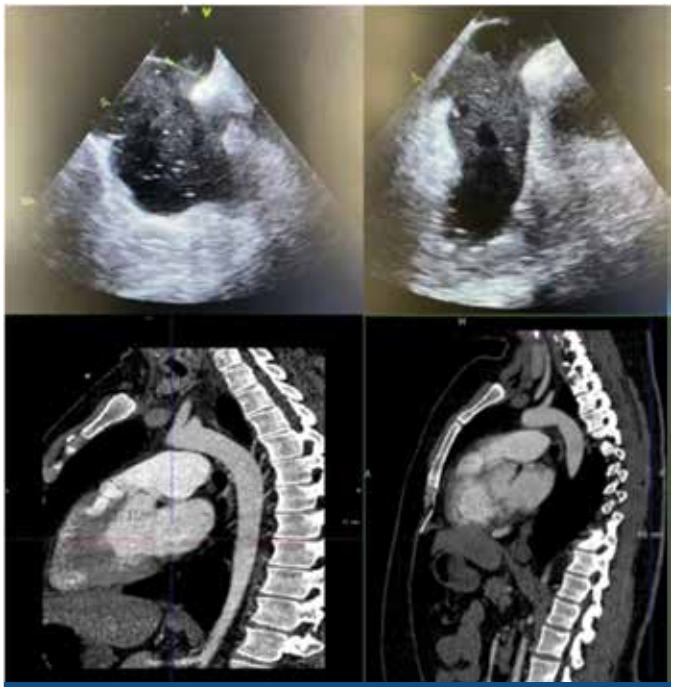

FIGURE 1. Display of atrial septal defect and dimensions of the right ventricular outflow tract.

LITERATURE

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