A 16-year-old patient, female, diagnosed with a coronary artery fistula, was followed in the outpatient clinic since the first year of life.

After referral for a murmur, the initial clinical and echocardiographic evaluation was of a right coronary artery fistula. At two years of age, cardiac catheterization showed a small fistula arising from the right coronary artery, near the origin of the sinus node artery, ending in the right atrium, not causing a significant shunt or dilation of the normal right coronary artery. A conservative approach was therefore adopted.

At seven years of age, myocardial perfusion scintigraphy was normal.

The patient remained asymptomatic until 16 years of age, when she experienced two syncopal episodes in the context of physical exertion. A non-invasive anatomical study was therefore performed with a 64-slice CT scan with three-dimensional reconstruction, which showed a fistula originating immediately after the take-off of the right coronary artery, taking a posterior, inferior and rightward course, and ending with a partially thrombosed saccular dilation in the right atrium. The right coronary artery distal to the fistula was normal (Fig. 1A and B).
The patient was catheterized, the angiographies confirmed the non-invasive findings (Fig. 1C), and the exam proceeded to interventional catheterization (Fig. 2A and B). The largest diameter of the saccular dilation measured 9 mm and a 12 mm Amplatzer Vascular Plug® was implanted at that site. After device release, there was near complete fistula occlusion, with mild residual flow through the device (Fig. 2C). The intervention had no complications, including ECG anomalies. The following day, the patient was discharged home, asymptomatic, with no clinical or echocardiographic evidence of a residual fistula.

Coronary fistula is a rare congenital malformation that consist of a direct vascular connection between a coronary artery and a cardiac chamber or vessel without passing through the capillary system. Its management is controversial, especially in incidental findings of asymptomatic fistulae (1). However, closure is mandatory for large and/or symptomatic fistulae (2), such as the case presented. In recent years, a percutaneous approach has been preferred, having been deemed possible in most cases and with comparable results to surgery (3).

Pedido de separatas para:

JOSÉ DIEGO FERREIRA MARTINS
Servizo de Cardiologia Pediátrica
Hospital de Santa Marta
1100-069 Lisboa
Portugal
E-mail: jdferreiramartins@gmail.com

**BIBLIOGRAFIA / REFERENCES**

