A 70 year-old woman had a personal history of type 2 diabetes, hypercholesterolemia and mild hypertension, and a 6-month clinical history of angina and effort dyspnea, normal baseline ECG, and a clinically and electrically positive exercise stress test. She was considered high risk.

Catheterization showed an ejection fraction of 73%. Coronariography (Figures 1 and 2) revealed the absence of the left coronary ostium and the anomalous origin of the trunk in the proximal segment of the right coronary, giving rise to a conal artery that passes in front of the right ventricular outflow tract (AC indicates conal artery; CD, right coronary artery; IVP, posterior interventricular; DA, rudimentary anterior descending arising from the conal artery; CX, circumflex system, with branches arising from the distal conal artery, right posterolateral trunk, and IVP, DG, small diagonal branches). The single ostium shows 99% stenosis (arrow).

Given the high risk of interventional action, surgery is decided on. Plasty of the right ostium is excluded due to the presence of a large calcification extending to the proximal right coronary artery. Simple anastomosis of the saphenous to the conal artery followed by stent implantation is chosen to avoid competitive flow and a possible second anastomosis to the CD. During surgery (Figure 3) the conal artery is visible (arrows) (VCS indicates superior vena cava; AD, right atrium; AO, aorta; AP, pulmonary artery.

The asymptomatic patient is released and one month later she was scheduled for rotablation treatment of the ostial lesion and placement of a 5 x 9 mm stent before the origin of the conal artery, with excellent angiographic results. The anastomosis remains permeable.

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Subtotal Stenosis of a Single Right Coronary Ostium

Fig. 1.

Fig. 2.

Fig. 3.