

Fig. 1

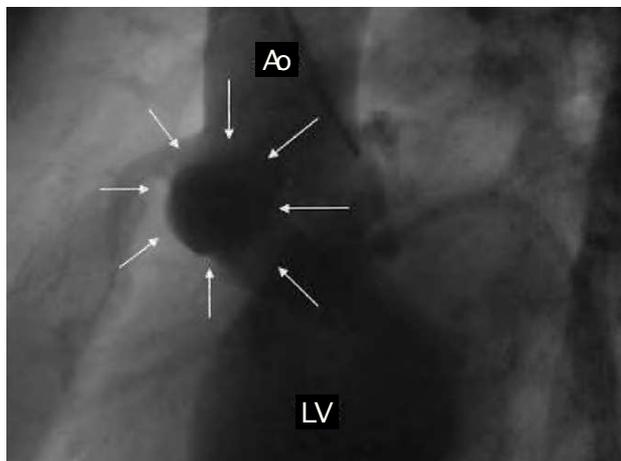


Fig. 2.

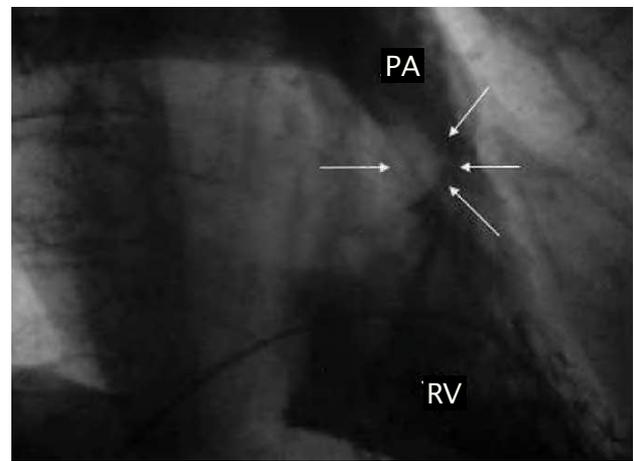


Fig. 3.

## Aneurysm of the Sinus of Valsalva and Right Ventricular Outflow Obstruction

We present the case of a 54-year-old man with a history of smoking, hypertension and hypercholesterolemia, monitored in the cardiology service since 1998 for a systolic-diastolic murmur at the left parasternal margin. The patient presented with symptoms of dyspnea in New York Heart Association functional class II. Electrocardiography showed considerable hypertrophy of the left chambers with left-ventricular systolic overload.

Hemodynamic and angiographic studies were performed. At withdrawal from the pulmonary artery to the right ventricle, the infundibular gradient was 30 mm Hg (Figure 1; PA indicates pulmonary artery; RV, right ventricle). Aortography showed grade IV aortic regurgitation and an aneurysm the size of a cherry with an intact wall in the right sinus of Valsalva (Figures 2 and 3, arrows; Ao indicates aortic artery, LV, left ventricle, PA, pulmonary artery, RV, right ventricle). There was no contrast flow between the right and left chambers. In the right ventriculography of the right ventricular outflow tract, a rounded indentation

was evident, corresponding to the anterior sinus of Valsalva (Figure 3). There were no abrupt oximetric changes suggesting the existence of small shunts.

Intact congenital aneurysms of the sinus of Valsalva with aortic regurgitation often occur, but right ventricular outflow obstruction is rare, and an association of the two conditions is even more unusual.

Generally these aneurysms go unnoticed until they rupture and cause a communication with another heart chamber. Even intact aneurysms are not completely innocuous. Among others, cases of aortic regurgitation, right ventricular infundibulum obstruction, coronary ischemia, tricuspid obstruction and regurgitation and conduction disorders have been reported.

Once this condition is recognized, surgical repair can prevent the complications associated with sudden development of an aortocardiac fistula, such as bacterial endocarditis and heart failure.

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