Congenital coronary fistulae: Clinical impact and interesting cases

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Coronary fistulae (CAF) with the cardiac chambers are extremely rare congenital vascular anomalies, reported in approximately 0.08-0.3% of unselected patients. Although coronary artery fistulae are commonly asymptomatic, they may cause severe symptoms depending on the severity of the shunt. Little data on the clinical impact and treatment are available. We aim to determine the outcome of percutaneous closure of large hemodynamically significant CAF in young patients. We retrospectively analysed 11 patients (median age at intervention 21 years, three females) affected by relevant congenital CAF, diagnosed by echocardiogram and cardiac catheterization. All patients underwent percutaneous closure and were followed for a mean period of three years. The clinical presentation of CAF was characterized by symptoms. In some cases CAF was incidentally diagnosed by echocardiogram. Most fistulas were originating from the left coronary artery (LCA) [7/11]. The right heart was the most common site of drainage (8/11). Multiple fistulas were found in three patients. No-one had other congenital disorders associated. All patients were treated with percutaneous transcatheter embolization. During follow-up, no patient died. In one case a retrograde thrombosis of the fistula with acute myocardial infarction occurred after one month and was treated with thrombectomy and coronary bypass. No other major adverse cardiac events were recorded. We conclude that the percutaneous closure of significant CAF is associated with low event-rate and excellent prognosis. A rich iconography based on echocardiography, computed tomography, magnetic resonance imaging and angiography are presented for some interesting cases.

Biography

Fabiola B Sozzi works as a Staff Cardiologist at University Hospital Policlinico of Milan, Italy. She has high skills in multimodality imaging of heart disease using echocardiography integrated with cardiac magnetic resonance imaging, cardiac computed tomography and nuclear. She also works in the acute clinical setting treating acute cardiac syndromes. She has expertise in Echocardiography at Thoraxcenter of Rotterdam (NL), where she defended her PhD thesis on Stress Cardiac Imaging under the supervision of Professor J Roelandt. She is a Visiting Professor at University of Milan where she leads several research projects and teaches at Faculty of Medicine and School of Specialization of Cardiology. She is an author of 70 papers published in peer-reviewed international journals and Reviewer of several medical international journals.

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