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Resolution of atrial fibrillation after radiofrequency septal ablation: Case report

Bruno Pereira Valdigem[1], Edileide Correa[2], Antonio Tito Paladino Filho[2], Rogerio Braga Andalaft[2], Gabriela Hinkelmann Berbert[2], Luciana Vidal Armaganiijan[2], Ricardo Garbo Habib[2], Larissa Ventura Bruscky[2], Andrea de Andrade Vilela[2], Jorge Eduardo Assef[2], Dalmo A R Moreira[2], Claudia Fragata da Silva[2], Rui F Ramos[2], Ibraim Masciarelli Pinto Filho[2]

1. Brazilan Association of Arrhythmia, Electrophysiology and Artificial Cardiac Stimulation _ Vila Mariana (SP), Brazil
2. Dante Pazzanese Institute of Cardiology – São Paulo (SP), Brazil

Atrial fibrillation is a multifactorial disease. The incidence of atrial fibrillation in cardiomyopathy is underestimated, and clinical and interventional treatment is faced with expectations of high recurrence rates. According to the new treatment guidelines for atrial fibrillation, the control of comorbidities must go hand in hand with symptom control and prevention of embolic events. Although surgical treatment of septal reduction (myectomy)has not reduced the incidence of atrial fibrillation, we do not yet know how new gradient reduction approaches may impact AF burden. Here, we have the first case report of atrial remodeling following radiofrequency septal ablation, reducing the burden of atrial fibrillation. **Case report:** Woman, 64 years old, with hypertrophic obstructive cardiomyopathy and paroxysmal atrial fibrillation, three symptomatic crises in the last year using amiodarone 400 mg per day and metoprolol 100 mg. Ejection Fraction 70%m septum 18 mm, LA 42mm, gradient 77 mmHg and presence of systolic anterior movement (SAM) with moderate mitral reflux. Ablation of the interventricular septum via transseptal and retro aortic routes was performed according to the protocol with gradient reduction and septal hyperrefringence. During the manipulation of the catheter in the left atrium, a new moderate pericardial effusion was observed, and it was decided not to perform concomitant pulmonary vein isolation (initial planning). Pericardial drainage and heparinization reversal were performed, with discharge from the ICU in 3 days. There was an improvement in symptoms over the first three months—and a progressive reduction of mitral insufficiency and SAM. Amiodarone was withdrawn after the third month, and there were no new arrhythmic events one year after septum ablation. At the end of one year, the echocardiogram showed no evidence of SAM or ventricular gradient, ejection fraction of 58%, septum of 12 mm and LA 36 mm. Thus, radiofrequency septal ablation allowed atrial remodeling and reduced AF burden. The long-term effects of this therapy can be beneficial when there is no symptom control with usual strategies.