

Young patient with dilatative cardiomyopathy and paroxysmal atrial fibrillation(PAF) – ablation therapy

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Key words: ablation, dilatative cardiomyopathy, paroxysmal atrial fibrillation

We report a case of patient with dilatative cardiomyopathy, implanted cardioverter defibrillator with inappropriate shocks due to fast paroxysmal atrial fibrillation treated by cryoablation of pulmonary veins. A 43 year old man was diagnosed with acute heart failure (HF) and atrial fibrillation (AF) in 07.2016. At first, he was treated with diuretic and inotrope therapy and later on converted to sinus rhythm with amiodarone. Echocardiography showed dilatative cardiomyopathy with low ejection fraction of 20%. Coronarography ruled out ischemic disease. Spiroergometry established moderately decreased functional capacity, often irregular non-sustained ventricular tachycardia. Holter ECG showed a lot of episodes of atrial fibrillation. Single chamber cardioverter defibrillator (ICD) was implanted for primary prevention of sudden cardiac death. Later on patient presented with inappropriate ICD shocks due to fast AF despite amiodarone therapy. Therefore, pulmonary vein isolation (PVI) was indicated. 4/2018 TOE excluded LAA thrombus and successful cryoablation of all pulmonary veins was performed (Picture 1). After PVI, patient did not experience further AF symptoms which was confirmed in the ICD follow up (Picture 2). Complete reduction of AF burden was verified. Furthermore, HF symptoms improved and patient was in NYHA I-II class. Ultrasound confirmed positive remodeling of LV and EF increased to 40% with marked decrease of proBNP. Amiodarone therapy was abolished. Ablation of AF prevented further inadequate shocks of ICD and increased ejection fraction (EF) from 20% to 40%. Therefore, at least partly, heart failure was tachycardia mediated (tachycardiomyopathy). Ablation and reduction of AF burden in this case has direct mortality benefit.