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## 221. FIRST EXPERIENCE WITH CRYOBALLOON ABLATION FOR ATRIAL FIBRILLATION IN REPUBLIC OF MOLDOVA

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**Introduction.** Pulmonary vein isolation is an established therapy for symptomatic atrial fibrillation (AF). The second generation cryoballoon is effective in achieving pulmonary vein isolation. In 2018 we implemented the cryoballoon ablation (CBA) in Republic of Moldova.

**Aim of the study.** To assess the freedom from AF recurrence after CBA.

**Materials and methods.** A retrospective study was performed in 8 consecutive patients who underwent CBA using Arctic Front Advance cryoballoon (Medtronic) for paroxysmal or persistent AF from June 2018 till December 2019 in Medpark International Hospital. We followed up the patients from June 2018 till March 2020. The information about the clinical symptoms and ECG data during follow-up was collected to identify the presence of recurrence. A recurrence after CBA was considered AF episode that lasted at least 30 seconds. Continuous variables are presented as mean  $\pm$  SD. Kaplan–Meier analysis was used to determine the probability of freedom from AF during follow-up.

**Results.** A total number of 8 patients with a mean age of  $60.13 \pm 6.88$  years with paroxysmal ( $n=7$ ; 87.5%) or persistent ( $n=1$ ; 12.5%) AF were identified. There were 6 males (75%) and 2 females (25%). All patients had a successful pulmonary vein isolation procedure with 100% of veins isolated. No patient had complication during procedure as phrenic nerve palsy, stroke or pericardial effusion. After a 3-month blanking period during a mean follow-up of  $337 \pm 135$  days there were 2 (25%) AF recurrences. One patient developed atrial flutter but not AF in the follow-up period with restoration of sinus rhythm with electrical cardioversion. The average days before recurrence was  $120.5 \pm 41.72$  (150 and 90). Freedom from AF recurrence was 75% at 11,2 months follow-up.

**Conclusions.** The second generation cryoballoon ablation is an effective method of treatment for atrial fibrillation. Our results are compatible with the success rate that is reported by majority of the studies.

**Key words:** Ablation, atrial fibrillation, cryoballoon, pulmonary vein isolation.

## 222. DILATED CARDIOMYOPATHY IN A PATIENT WITH ACROMEGALY – ASSOCIATION OR CAUSALITY

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**Background.** Acromegaly is a rare endocrine disorder that carries a significant burden of cardiovascular morbidity and mortality. Abnormalities of the growth hormone/insulin-like growth factor-1 (IGF-1) axis in acromegaly lead to the characteristic cardiovascular

manifestations. One hallmark feature of the disease is acromegalic cardiomyopathy; a syndrome of progressive cardiac dysfunction characterized by left ventricular (LV) hypertrophy, diastolic dysfunction, and combined systolic and diastolic dysfunction in advanced stages. Dilated cardiomyopathy (DCM) is relatively rare in this setting but is associated with increased mortality.

**Case report.** We report the case of a 44 y.o man who was admitted to the cardiology department because of progressive dyspnea on exertion and paroxysmal nocturnal dyspnea with recent onset. Physical examination revealed systolic murmurs in mitral and tricuspid areas and jugular vein distension. Laboratory findings showed moderate hepatic cytolysis. Electrocardiogram showed sinus rhythm (SR) and LV hypertrophy. Echocardiography revealed DCM with severe LV dysfunction (LV ejection fraction (LVEF) = 20%), LV hypertrophy, restrictive diastolic dysfunction, biatrial enlargement, moderate mitral regurgitation and pulmonary hypertension (systolic pulmonary artery pressure (PAPs) = 60 mmHg). A coronary angiography was performed to rule out coronary disease. It revealed normal coronary arteries. Optimal heart failure (HF) treatment was started. The patient did not attend follow-up visits. Ten years later, he presented with NYHA class III HF symptoms. Mandibular enlargement with widened space between the lower incisor teeth, macroglossia, enlargement of his hands and feet over the last 10 years was noted on physical examination. Laboratory findings revealed hepatic cytolysis and elevated NT-proBNP (9668 pg/ml). Electrocardiogram identified atrial fibrillation. Echocardiography showed dilated cardiomyopathy with further deterioration of LV function (LVEF=15%) and pulmonary hypertension. Magnetic resonance imaging showed non-specific LV myocardial fibrosis. Genetic tests, carried out to exclude a genetic DCM (170 genes evaluated), did not identify any pathogenic variants. At this point an endocrinology evaluation was requested. It revealed active acromegaly (IGF-I = 416 ng/ml) due to pituitary microadenoma. Considering a high surgical risk, conservative treatment with somatostatin analogue was initiated. Follow up at 5, 10 and 18 months revealed improved clinical status, spontaneous restoration of SR, progressive improvement in LVEF (30%, 33% and 40%), normalization of PAPs and of NT-proBNP = 186 pg/ml.

**Conclusions.** Here we report the case of a patient with acromegaly and severe non-ischemic DCM. Treatment with somatostatin analogue resulted in early improvement of clinical status and LV systolic function sustaining a probable causal relation between endocrinological dysfunction and DCM. This is a one of the few reported cases of acromegalic DCM with significant improvement under somatostatin analogue therapy as an initial option.

**Key words:** acromegaly , dilated cardiomyopathy , acromegalic cardiomyopathy

## **223. LEFT ATRIAL ENCAPSULATED THROMBUS IN A NON-COAGULATED PATIENT WITH SEVERE MITRAL STENOSIS**

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**Background.** Rheumatic mitral stenosis (MS) is associated with left atrium (LA) thrombus in patients in sinus rhythm (3 % – 13 %) and markedly increases in atrial fibrillation (~33 %). The presence of LA thrombus carries a risk of systemic embolization and neurologic morbidity.