



Cryo-Balloon Catheter Ablation Efficacy Restoring And Maintaining Sinus-Rhythm In Patients Treated For Persistent Long Standing Atrial Fibrillation After Acute Complete Electrical Isolation Of The Pulmonary Veins

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Abstract

Introduction: Cryo-balloon catheter ablation (CB) has proven effective in the definitive treatment of paroxysmal atrial fibrillation. However, the isolated efficacy of CB restoring and maintaining sinus rhythm in patients with persistent long standing atrial fibrillation (AF) is less known. In a medium-long terms follow-up.

We analyzed the acute results and the medium-long term follow-up of our patients suffering AF and initially treated with CB.

Methods: A total of 35 patients (28 male (80%) and 7 female (17%), mean age 59 ±11 and 64±5 years respectively with AF) were treated with CB. The mean time duration of stable arrhythmia was 4±3 years (2-11). PV/LA morphological and structural data are shown in table 1.

Results: Are showed in table 2.

Conclusions: CB technique is useful to treat persistent long standing Atrial Fibrillation with 46% success rate maintaining sinus rhythm without medication at 2,5 years, increasing by 23% to 69% when antiarrhythmic drugs are added.

Patients without Structural Heart Disease along with those who sinus rhythm was restored during CB showed the best results.

Table 1: Morphological and structural LA/PV and LV data.

Without structural heart disease.					heart disease.				
(28 patients)					(7 patients)				
Diameters (mm)	LA	PV	LCT	LVEF	Diameters (mm)	LA	PV	LCT	LVEF
AP	40±4 (33-49)	20±5 (14-28)	28±2 (25-29)	68%±6	AP	43±5 (34-48)	18±5 (14-28)	27	63%±5
SI	24±5 (42-70)	21±4 (9-32)	31±3 (30-35)	LA/Area (cm ²) 24±5 (14-36)	SI	60±4 (55-65)	22±5 (16-32)	30	LA/Area (cm ²) 28±3 (24-33)
LAT	47±7 (41-66)				LAT	80±7 (43-60)			

Table 2 Results

Follow-up mean period duration: 2.5 years (9-80 month)

Arrhythmia Recurrence		Maintenance of Sinus Rhythm	
11 Patients (31%)		24 Patients (69%)	
7 (Structural Heart Disease)	4 (No Structural Heart Disease)	8 (23%) with medication	16 (46%) without drugs
		7 SR restored during CB	