

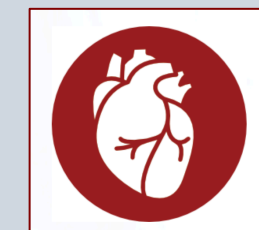
**BACKGROUND**

Common pulmonary trunk (CPT) accounts for the most frequent pulmonary vein anatomical variant. Point-by-point radiofrequency ablation is the most frequent technique used for pulmonary vein isolation (PVI) in this setting, and the use of cryoablation (CAb) is still debatable. Few studies have shown the feasibility and safety of CAb in CPT atrial fibrillation (AF) patients, most of them performing anatomical study with cardiac CT angiography (CTA) prior to ablation.

**Purpose:** To compare the success rate and safety of CAb in patients with or without CPT, submitted to AF ablation.

**METHODS**

**Single-center retrospective study**



AF patients, refractory to antiarrhythmics,  
CAb Ablation

2017 – 2020

Left atrium angiography >> CAb

**CPT vs no CPT**

**PRIMARY ENDPOINT** Absence of AF (duration >30min)

Monitoring with a 7-day event loop recorded at 3, 6 and 12 months

**STATISTIC ANALYSIS** ( $\alpha=0.05$ ):

$\chi^2$  test and Mann-Whitney analysis, accordingly, to assess baseline characteristics.

Kaplan-Meier survival curves to assess primary endpoints.

**RESULTS**



**n = 232**

**Mean age** 60 ± 12 yo

**Males** 68%

**CPT in 29 patients**

28 left CPT, 1 right CPT

**Median follow-up post CAb**

135 days (IQ 32-249)

**Table 2.** Procedure variables

	CPT	No CPT	P-value
Time of procedure, mean±SD	91.6±23min	100.7±36min	NS
Radiation dose, mean±SD	13.7±6.7 Gy	15.8±8.2 Gy	NS
Complications, % (n)	6.8 (2)	4.9 (10)	NS

**Table 1.** Baseline characteristics of the populations studied

	POPULATION CHARACTERISTICS		
	CPT (n=29)	No CPT (n=203)	P-value
Age, mean±SD	62 ± 14	60 ± 12	NS
Male, % (n)	69.0 (20)	68.0 (138)	NS
CHA <sub>2</sub> DS <sub>2</sub> VASc, mean±SD	3 ± 2	2 ± 2	<b>0.001</b>
<b>CV risk factors</b>			
HTN, % (n)	60.0 (17)	59.1 (120)	NS
Dyslipidemia, % (n)	34.5 (10)	43.8 (89)	NS
Diabetes, % (n)	17.2 (5)	16.3 (33)	NS
<b>Previous Stroke, % (n)</b>	<b>24.1 (7)</b>	<b>6.8 (14)</b>	<b>0.007</b>

**Table 3.** 1 and 3-year ablation success rate

	CPT	No CPT	P-value
1-year success rate	95.6%	88.1 (3)	NS
3-year success rate	95.8%	86.5 (6)	NS

**CONCLUSION**

In our experience, balloon cryoablation for pulmonary vein isolation in patients with atrial fibrillation is a successful and safe procedure in patients with common pulmonary trunk anatomical variant.