



EuroValve

October 24-25 2014, Rome, Italy

www.eurovalvecongress.com



Does the preoperative left atrium size influence the outcome of surgical radiofrequency ablation in associated atrial fibrillation?

G Cerin, BA Popa, S Simonini*, E Novelli*, L Karazanishvili, D Benea, A Popa, M Diena

Cardioteam, Dpt. of Cardiovascular Diseases, *Biostatistics Dpt., San Gaudenzio Clinic, Novara, Italy

Background

Pre-operative atrial fibrillation (AF).

- ≈11% of cardiac surgical pts (STS database)
- increases the mortality risk after surgery (when left untreated)

Surgical ablation (SA) of AF

- improves survival
- may avoid permanent anticoagulation.
- published results of SA are variable

Left Atrial size: Appears mostly influential on the results of SA. There is a well-known correlation between the LA dilation and the onset of AF, but it is not clear if the LA size before ablation may predict the recurrence of AF.

Aim

This study investigates the mid-term efficacy of surgical bipolar radiofrequency (RF) AF ablation and questions the effect of the preoperative LA volume on the outcome.

Methods

Intraoperative radiofrequency SA

- 72 surgical pts presenting with AF
- paroxysmal (31pts [42.6%]),
- persistent (31pts [42.6%]),
- longstanding persistent AF 6pts (8%)
- sinus rhythm (SR; 2pts [3%])

The aetiology of AF:

- rheumatic/actinic
- MV disease (MD) 30pts (41,7%)
- Dilated CM 25pts (34,2%)
- Barlow/FED 11pts (15,2%)
- Congenital 11pts (15,2%)

Pts. characteristics

Age: 65.2±11.2y
Weight: 70.5±13.9kg
BSA: 1.8±0.2sqm.

TT Echo LA volume

4C-Vol,
2C-Vol
Indexed LA-Vol

Statistics:

Kolm.-Smirnov test,
Levene's test
T-test

Clinical Fup

ECG Fup up available in 66pts (92%).

Discharge ECG

SR: 46 (63,4%)
AF: 24 (33,3%)
PM: 2 (3,3%)

Results

Follow-up ECG

(mean 1,8y)
SR : 50pts (75.8%).
AF/other: 16pts (24.2%)

Amiodarone (Am): 23p (31,9%)
Am + β Bloc: 15pts (20,1%),
Combined: 9pts (12,5%)
None: 12pts.

No significant differences regarding the presence of SR or AF were found between groups in terms of gender, weight or BSA. No significant correlations have been found between any of the LA preoperative volumes and the type of heart rhythm on the f-up ECG.

Fup	♂	♀	Weight (kg)	BSA (m ²)	LA4C- Vol(ml)	LA 2C- Vol(ml)	Indexed LA-Vol(ml)
SR	20(76.9%)	30(75.0%)	71.5±14	1.81±0.20	130.0±50	81.4±36	59.9±22
AF	6(23.1%)	10(25.0%)	67.3±12	1.75±0.17	127.5±51	75.9±42	60.1±28
p value	na	na	294	249	859	608	868

Tab 1. Follow-up ECG in different groups and Preoperative Left Atrial volumes in relation to F- up ECG

Conclusions. Surgical RF ablation of associated AF may be performed with excellent mid-term results. About 3/4 of the treated pts remain in SR at Fup. We expected that patients with preoperative larger LA to show worse outcome but the degree of LA dilatation appeared not to influence outcome. We believe that this study demonstrates the excellent mid-term efficacy of the surgical RF ablation of associated AF and support a larger or even routine utilization in everyday practice.