

LEFT ATRIUM ABLATION FOR ATRIAL FIBRILLATION: A MULTICENTER PERSPECTIVE REGISTRY ON PROCEDURAL SAFETY

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Background and objective: not univocal data are available about procedural safety of left atrium (LA) radiofrequency ablation (RFCA) for curing atrial fibrillation (AF). The objective of this study was to assess RFCA procedures to cure AF by means of pulmonary veins (PV) circumferential isolation and linear LA lesions.

Methods and results: Data were stored in a multicenter registry. During 2005, 355 consecutive pts underwent RFCA for AF. There were 273 (77%) male, mean age 57.9 ± 9.9 years. Paroxysmal AF was present in 55%, persistent in 37%, and permanent in 8% of pts. History of cerebrovascular accident was present in 4% of pts. Mean number of vascular cannulations was 2.97 ± 0.8 . In 277 pts (78%) a single transeptal puncture was necessary; in 50 pts (14%) a double puncture; in 2 pts (0.6%) a triple puncture, while none in 27 pts (8%). In 323 (90%) pts a non-fluoroscopic mapping technique was used (CARTO system). In 81 (23%) pts a LASSO catheter and in 45 (13%) pts a BASKET catheter were used. Cooled tip catheter was used in 252 pts (71%) with a power set up to 42 Watts; 8-mm tip catheter and 4-mm tip were used respectively in 83 (23%) and in 21 (6%) pts, with a power set up to 80 and 35 Watts. A mean of 4.5 ± 1.2 PVs were isolated. Linear lesions were added in 202 pts (57%) at cavotricuspidal isthmus, in 186 pts (52%) at mitral isthmus, and in 89 pts (25%) along the LA roof. Mean procedure time was 128.3 ± 85.6 min; mean fluoroscopy time 31.1 ± 25.4 min; mean RF delivery time 45.7 ± 17.3 min.

Complications were classified in major (not spontaneously solve), and minor (spontaneously solved).

No patient died. Rate of major complications was 3%: there were 2 (0.5%) cases of cardiac tamponade, 1 (0.2%) pleuric ematic effusion, 5 (1.4%) pseudoaneurisms, 2 (0.5%) artero-venous fistula and 1 (0.2%) major ischemic stroke. Rate of minor complications was 2.5%, with 4 (1%) inguinal hematoma, 1 (0.2%) left arm phlebitis, 1 TIA, 1 pt with 50% PV stenosis and 2 (0.6%) pericardial effusions.

Conclusion: as other literature data we confirm similar rate of complications, with slight lower rate of serious events.