CONCOMITANT SURGICAL ABLATION FOR ATRIAL FIBRILLATION IN PATIENTS WITH SIGNIFICANT ATRIAL DILATION GREATER THAN FIFTY-FIVE MILLIMETRES: WORTH THE EFFORT?

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Objectives: Concomitant surgical atrial fibrillation (AF) ablation is an established procedure, recommended in guidelines. However, many surgeons are reluctant to perform AF ablation in patients with significantly enlarged left atrium (LA). We therefore analysed outcomes of patients with left-atrial diameter >55 mm undergoing concomitant AF ablation.

Methods: Between May 2003 and December 2012, 124 patients with significantly enlarged LA >55 mm underwent concomitant surgical AF ablation. Rhythm monitoring was accomplished by implantable loop recorder (ILR) interrogation (n=54), or 24-h Holter ECG (n=70). Successful ablation was defined as AF burden <0.5% in ILR interrogation or absence of AF episode >30 s in 24-h Holter ECG. The primary endpoint of the study was sinus rhythm (SR) at 12-month follow-up.

Results: Mean patient age was 65.7 ± 9.6 years, 69.6% were male. No major ablation- or ILR-related complications occurred. Mean LA diameter was 60.7 ± 4.4 mm. Survival rate at 1-year follow-up was 94.4%. Eleven (8.8%) patients received additional catheter-based ablation, while 23 (18.5%) had an electrical cardioversion during the follow-up period. Overall SR rate after 1-year follow-up was 63.4% and 59.4% off antiarrhythmic drugs. Patients with preoperative paroxysmal AF had significantly higher SR rate at 12-month follow-up. Demographic data, indication for surgery, lesion set and used energy source had no impact on SR rate after 1year.

Conclusion: In this patient cohort with significantly enlarged LA diameter, concomitant surgical AF ablation provided SR rate of 63.4% after 1-year follow-up. However, in this patient population, an accurate postoperative care with interventions like medical or electrical cardioversion and additional catheter-based ablation is necessary to achieve satisfactory results.