Atrial fibrillation surgery at University Hospital Centre Zagreb 2020-2022

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Introduction: Atrial fibrillation (AF) is the most common adult arrhythmia. Previous reports have suggested that surgical ablation concomitant with cardiac surgery significantly increases freedom from AF.¹ The goal of this study was to present our experience with AF surgery concomitant to conventional heart surgery at the University Hospital Centre Zagreb.

Patients and Methods: We performed a retrospective analysis of our cardiac surgery database to include all patients with concomitant AF surgery from January 2020 to September 2022. During hospital stay patients were monitored with ECG telemetry. Patient follow-up consisted of checkup at 6-weeks and 6-months with a 12-lead ECG and a 24-hour Holter ECG. Continuous variables are summarized in terms of median and interquartile range (IQR); with the IQR being the range between the first and third quartile. Dichotomous variables are summarized in terms of frequencies and proportions.

Results: This study included 15 patients. Median age was 64 (17) years. All patients, but one, were on anticoagulation therapy and had at least one rate control drug. All patients had paroxysmal AF. Indication for surgery was mitral, aortic and aortomitral disease. Early postoperatively 13/15 (87%), while upon hospital discharge, 12/15 (80%) patients were in sinus rhythm (SR). There were no surgical complications. One patient developed a high degree AV-block requiring permanent pacemaker implantation. At 6-week follow-up the incidence of SR remained the same. A 24-hour Holter ECG was available for 9/15 (60%) patients at 6-month follow-up and 8/9 (89%) were in SR. All patients were recommended anticoagulation and there were no thromboembolic events during the follow-up period.

Conclusion: Concomitant AF surgery is an efficient method to maintain sinus rhythm during 6-months follow-up. Previous reports have suggested that surgical ablation concomitant with cardiac surgery significantly increases freedom from AF. Long term anticoagulation therapy after surgical ablation of AF is recommended based on the patient's thromboembolic risk. Whether the patients following concomitant AF surgery should remain anticoagulated in the long-term, remains a matter of debate. Large, prospective, properly designed trials are needed to answer the question of anticoagulation following AF surgery.

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