

Oral Session 7

Mechanisms and therapy of cardiac arrhythmias

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Concomitant atrial fibrillation ablation and left atrial appendage occlusion

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Introduction: In selected patients with atrial fibrillation (AF) left atrial appendage (LAA) occlusion is an alternative to oral anticoagulation since the LAA is the source of thrombi in more than 90%. Combining transseptal radiofrequency AF ablation and LAA occlusion in symptomatic patients with AF and at high thromboembolic risk might be elegant and convenient. However, outcome data of concomitant AF ablation and LAA occlusion are scarce. We report our experience with combined procedures using a simplified approach.

Method: We assessed all consecutive patients who underwent concomitant transseptal AF ablation and LAA occlusion using Amplatzer devices (St. Jude Medical, Plymouth, MN, USA) between 2002 and 2013. All patients had LAA occlusion performed under local anesthesia (one exception) at the end of the AF ablation procedure. LAA occlusion was guided by fluoroscopy only and without intraprocedural transesophageal echocardiography.

Results: The concomitant procedure was performed in 20 patients (14 males), aged 66±9 years, CHA₂DS₂-VASc-score 2.4±1.5 with an acute success rate of 100%. However, there were one bleeding from the femoral access site and one aneurysm formation both requiring surgical intervention as well as one subacute device embolization. The embolized device was retrieved using a vascular snare and the LAA was occluded with another device in the same session. After a mean follow-up of 30 months (4 to 119 months) there was no device embolization or cerebrovascular event. One patient died from congestive heart failure 10 years after the procedure. AF recurred in 9 patients (50%) compared to an overall success rate after the last procedure of 68% in patients with AF ablation alone in our center within the same time period (n=676; p=0.1).

Conclusion: Concomitant LAA occlusion and transseptal AF ablation is feasible without intraprocedural echocardiographic guidance or general anesthesia. However, the acute complication rate for the combined approach is higher than expected for an AF ablation alone. The long-term safety is good. Compared to overall success rates of AF ablation alone AF recurrences may be more frequent.

Disclosure of Interest: S. H. Baldinger: None declared, S. Weretka: None declared, S. Shakir: None declared, M. Schmid: None declared, L. Roten: None declared, J. Seiler: None declared, F. Noti: None declared, A. Medeiros-Domingo: None declared, J. Fuhrer: None declared, B. Meier Grant/ research support from: St. Jude Medical, H. Tanner: None declared

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Improved outcome following cardiac resynchronization therapy is related to higher doses of ACE inhibitors, angiotensin receptor antagonists and beta blockers and lower doses of diuretics

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Introduction: Cardiac resynchronization therapy (CRT) is an established treatment option for patients with chronic heart failure (CHF), who are on optimal medical therapy. The impact of CHF medication optimization *following* CRT, however, has never been comprehensively examined. In the present study, we therefore examined the effect of CHF medication dosage on clinical outcome in CHF patients after CRT implantation.

Method: A total of 185 patients were retrospectively followed up after CRT implantation. CHF medication of patients with a complete 24-month follow-up (or who reached a mortality endpoint prior to this time point) was continuously assessed. Patients with an improvement of the end-systolic volume index (ESVI) of ≥ 40 % were considered super-responder. The primary endpoint (death, heart transplantation, assist device implantation, or hospitalization for CHF) occurred in 83 patients over a mean follow-up of 44.6 months.