11% pts. and AT in 64% pts.More than 1/2 of AT originated in LA (perimitral atrial flutter in most cases).Remaining arrhythmias were from the right atrium (RA) (typical atrial flutter in ½ of cases).55% pts. had a renewed conduction in the MI isthmus.No domination in reconnections was found for any of the pulmonary veins.Significantly reduced signal amplitude in LA was associated with a higher risk of acute CA failure (p=0.001) and trend to a higher risk of AF/AT recurrence after 12M (p=0.07).No relation was found between individual types of CS procedures (MI valve repair,TRI valve repair,CS for CHD,right-sided MAZE,repeated CS) and the risk of recurrence after 12 or 24M.When dividing MI valve operations into plasty and replacement,we found lower risk of recurrence both after 12M (p=0.06) and after 24M (p=0.03) in those with MI replacement.There was a trend of a higher incidence of RA arrhythmias following CS for CHD (p=0.06).
Conclusion: CA performed to treat AF/AT recurrence after CS is effective method,despite an extensive arrhythmogenic substrate.MAZE procedure leads to organising of recurrent arrhythmias into AT. Large number of AT originate from the RA- in particular in pts. with CHD.Pts. with a extensively reduced signal present the most complicated cases.

P3829
Long-term serial changes in left atrial volume and function after catheter ablation for atrial fibrillation

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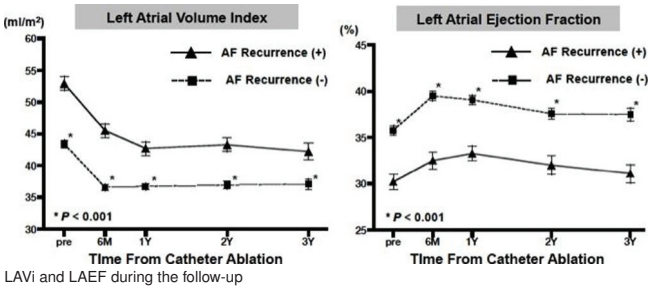
Background: Atrial fibrillation (AF) is increasingly prevalent and is associated with high morbidity, mortality and health care cost. Catheter ablation is an effective method to restore and maintain sinus rhythm and has been shown to improve left ventricular function in patients with AF. However, data regarding serial changes in size and function of left atrium (LA) after the ablation remain scarce.
Objective: The aim of this study was to investigate the serial changes in LA size and function by echocardiography, and thoseimpacts on the AF recurrence.
Methods: We retrospectively reviewed 1,350 consecutive patients (age: 67±10 years, male: 72%, LVEF: 61±7%) undergoing catheter ablation for AF for whom both pre- and post procedural serial echocardiographic data were available.Echocardiography was performed at pre-, 6-month, 1-year, 2-year and 3-year after the ablation procedure. The recurrence of AF and changes in echocardiographic parameters were evaluated.
Results: The mean LA volume index (LAVi) at pre-, 6-month, 1-year, 2-year and 3-year after the procedure was 45.8±16.8, 39.0±14.5, 38.3±13.5, 38.7±13.7 and 38.5±14.1 ml/m^2, respectively. During the mean follow-up of 658±550 days, AF recurrence was observed in 281 (20.8%) patients.Patients with AF recurrence had significantly larger LAViat baseline than those without (43.4±16.0 vs 52.9±18.2 ml/m^2, P<0.001) and these differences were maintained thereafter during the follow-up (Figure). Likewise, there were significant differences in LA ejection fraction (LAEF) between the groups throughout the observationperiod.



LAVi and LAEF during the follow-up

Conclusions: The catheter ablation was associated with significant reduction in LAVi and improvement of LAEF, and those effects maintained thereafter. Patients with AF recurrence showed larger LAVi and lower LAEF even after the catheter ablation.

P3830
Favorable neurological outcomes of left atrial appendage occlusion versus non-vitamin K antagonist oral anticoagulants after stroke in atrial fibrillation

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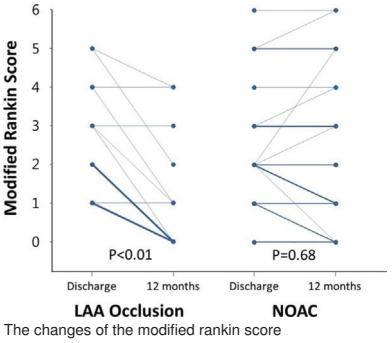
Background: Previous studies suggest that strokes after left atrial appendage occlusion (LAAO) are less disabling than those in the conventional warfarin treatment. non-vitamin K antagonist oral anticoagulants (NOAC) have emerged as safe and effective alternatives to warfarin for stroke prophylaxis in patients with nonvalvular atrial fibrillation (AF).

Objectives: We investigated the effects of LAAO on neurological outcomes after ischemic stroke (IS) in patients with AF compared to NOAC.
Methods: Using the databases of 1,189 patients treated with LAAO from Korean LAAO and European Amplatzer cardiac plug multicenter registry, we identified 24 stroke patients. Total 30 of 3,408 patients from AF NOAC registry who experienced a IS were also included. Disabling strokes were defined as strokes with modified Rankin score (mRS) of 3–6. The mRS assessed at discharge, 3 months and 12 months after discharge were compared between two groups
Results: The mean age was 72.9±9.5 and 61.1% was male gender. The CHA2DS2-VASc score were 4.7±1.6 and 4.3±1.5 in LAAO and NOAC treatment group, respectively (P=0.34). The mRS was significantly lower in LAAO group at 3 months (P=0.01) and 12 months (P<0.01) after stroke despite of similar mRS at hospital discharge (P=0.78). The mRS showed a significant reduction in LAAO group (P<0.01) between the discharge and 12 months, compared to the NOAC group (P=0.68). The proportion of disabling stroke was 12.5% and 43.3% at 12 months (P=0.03) in LAAO and NOAC group, respectively.



The changes of the modified rankin score

Conclusions: Percutaneous LAAO in non-valvular AF showed favorable cerebrovascular outcomes compared with anticoagulation by NOAC in patients who experienced IS.

P3831
Still neuroendocrine effects 4 months after radiofrequency ablation of atrial fibrillation

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Background: Radiofrequency ablation (RFA) is a well-establish treatment for symptomatic patients with atrial fibrillation (AF). During RFA of AF a significant amount of radiofrequency energy is delivered in to left atrium (LA) resulting to a considerable atrial damage. However, the impact of this damage on endocrine atrial function is largely ignored.
Purpose: We aimed to assess the impact of RFA of AF on endocrine and cardiac function depending on possible recurrences.
Methods: We studied 119 patients undergoing RFA of AF during the period January 2012 and April 2014. We measured the concentrations of the N-terminal of pro B-natriuretic peptide (NT-proBNP) and the mid-regional fragment of the N-terminal of pro-atrial natriuretic peptide (MR-proANP). Repeated measures analysis of variance was performed to determine if there were any significant changes in the concentrations of the natriuretic peptides before as compared to 4 months after the procedure. The analysis was adjusted for age, gender, type of AF, rhythm and left ventricular ejection fraction (EF).
Results: In total, 53 (44.5%) patients suffered a recurrence during follow-up period of 143±36 days. The concentration of NT-proBNP decreased significantly at the follow up (NT-proBNP follow up: 279.5pg/ml; 95% confidence interval {CI} for the mean 206.4–352.6pg/ml) compared to baseline concentration (NT-proBNP

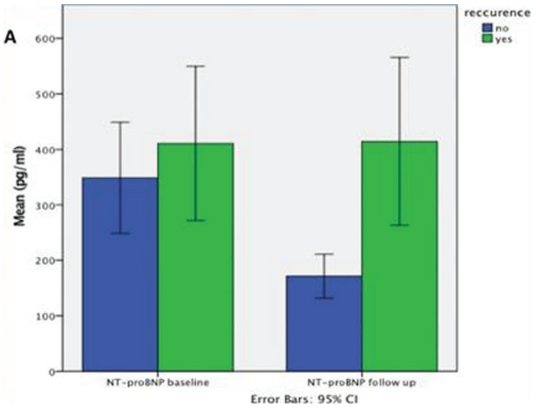

Figure 1A. RFA effect on natriuretic peptides