

P344

## Does the presence of spontaneous echo contrast in TEE predict thromboembolic events during or after catheter ablation of atrial fibrillation?

D. Gjermeni, V. Kuehlkamp, N. Poci

*Herz Zentrum Bodensee, Konstanz, Germany*

**Introduction:** The detection of spontaneous echocontrast in the left atrium is often used as a surrogate parameter for a high cardioembolic risk. However, studies have shown that transesophageal echocardiography (TEE) guided cardioversion does not decrease the risk of thromboembolic events in comparison to long-term effective oral anticoagulation. Data to better estimate the clinical relevance of SEC 3 on the risk of thromboembolic events in catheter ablation of atrial fibrillation (AF) are missing.

**Method:** The cohort consisted of 1199 patients (1360 ablation procedures) who underwent TEE according to physician discretion prior to catheter ablation of paroxysmal (67%) or persistent (33%) atrial fibrillation. Mean age was 64,3 years, 35% were of female gender, 1020 (75%) procedures performed were in Cryo-technique. Almost 46% of the patient population had a CHADS-VASC score >2 and only 18% a HAS-BLED >2. Spontaneous echocontrast grade 3 (SEC 3) was seen in 135 (9.9%) TEE examinations, 1225 examinations were inconspicuous. Despite these findings, patients with SEC 3 underwent catheter ablation of AF, mainly due to disabling clinical symptoms associated with heart failure and atrial fibrillation. Catheter ablation was performed with uninterrupted oral anticoagulation in 933 cases (69%), during the ablation procedure patients received unfractionated Heparine (ACT > 300s).

**Results:** Twenty-five strokes (1,8%) occurred in 1360 ablation procedures, eleven patients suffered from a procedure related stroke and 14 patients

had a transient ischemic attack. In the group of 135 cases with SEC 3 three transient ischemic attacks occurred (2.2%) as compared to 22 embolic events (1,8%, stroke n=11, TIA n=11) in the group with inconspicuous transesophageal echocardiogram. Considering the 933 patients with uninterrupted OAC there were no thromboembolic events at all on the group with SEC 3 compared to 12 (1.4%) events on the patients presenting without SEC 3.

The type of oral anticoagulation (Vitamin K Antagonist or direct oral anticoagulant) had no effect on the overall results. Presence of SEC 3 failed to predict thromboembolic events even when the analysis was adjusted to possible explanatory variables such as age, gender, DOAC, paroxysmal or persistent AF. In contrast, interruption of oral anticoagulation prior to catheter ablation increased the risk of an embolic event (1, 3% versus 3.1%) significantly ( $p=0.03$ ), specifically the detection of SEC 3 in the left atrium was a strong predictor of embolic events only in patients with interrupted oral anticoagulation ( $p=0.28$ , OR 2.4).

**Conclusion:** Spontaneous left atrial echocontrast seen prior to catheter ablation of atrial fibrillation does not predict perioperative thromboembolic events in patients with uninterrupted oral anticoagulation. If oral anticoagulation is interrupted for catheter intervention and spontaneous echo contrast can be detected in the left atrium, the risk of embolic events doubles.