

three groups (10.3% vs. 8.9% vs. 7.6%, $p=0.72$; 3.2% vs. 2.1% vs. 1.1%, $p=0.47$; 2.3% vs. 2.1% vs. 1.1%, $p=0.89$; 2.3% vs. 0.9% vs. 0.7%, $p=0.48$; 6.9% vs. 6.6% vs. 5.9%, $p=0.85$, respectively). Underweight (hazard ratio [HR] 10.7 [vs. overweight], 95% confidence intervals [CI]: 5.12–23.4, $p<0.001$) and hemodialysis (HR 3.80, 95% CI: 2.32–6.16, $p<0.001$) were predictors of 3-year all-cause mortality.

Conclusions: BMI has significantly impact on 3-years all-cause mortality after PiCr-EES implantation.

P6380

Safety and efficacy of a novel everolimus eluting stent system in real world patients with coronary artery disease, a report of 1 year outcomes from ongoing see-real registry

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Tetralimus is a biodegradable-polymer coated everolimus-eluting cobalt-chromium coronary stent system with an ultra-thin (60 μ m) strut thickness. We aimed to evaluate the “real-world” clinical outcomes with Tetralimus coronary stents in the “Safety and Efficacy of a novel Everolimus-eluting stents in ‘Real-world’ patients” registry. All consecutive patients who had received Tetralimus stents between July-2015 and April-2016 at two tertiary-care centres in India were examined in this retrospective, single-arm, open-label, multi-centre registry. Follow-up was conducted at 30 days, 6 months, and 1 year of stent implantation. The primary endpoint was an incidence of major adverse cardiac events (a composite of cardiac death, myocardial infarction, target lesion revascularization, and target vessel revascularization). The Academic Research Consortium (ARC)-defined stent thrombosis was assessed as additional safety endpoint. During the study period, 280 Tetralimus stents (1.4 \pm 0.5 stent/patient) were implanted to treat 252 coronary lesions (1.1 \pm 0.3 stent/lesion) in 208 patients (age: 57.5 \pm 11.9 years). Among them, 137 (65.9%) were male, 97 (46.6%) were hypertensive, 52 (25%) were diabetic, 76 (36.5%) were alcoholics, 61 (29.3%) were smokers, 29 (13.9%) were tobacco chewers, 11 (5.3%) had previous revascularization, and 94 (45.2%) displayed multi-vessel coronary disease. Of treated lesions, 170 (67.5%) were complex (i.e. Type B 2/C) and 47 (18.7%) had total occlusion. Average length and diameter of implanted stents were 25.5 \pm 8.8 mm and 2.9 \pm 0.3 mm respectively. The 30-day, 6-month, and 1-year major adverse cardiac events were reported in 2 (0.96%), 6 (2.88%), and 9 (4.32%) patients respectively. Overall, 7 (3.36%) cardiac death, 2 (0.96%) non cardiac death, 2 (0.96%) of myocardial infarction, and 3 (1.44%) cases of possible stent thrombosis were reported at 1-year follow-up. Low rates of major adverse cardiac events and stent thrombosis at 1-year follow-up indicates favourable safety and efficacy of Tetralimus everolimus eluting stents in unselected “real-world” patients with coronary artery disease.

STROKE – HEART: CLINICAL INTERACTIONS

P6381

The left atrial appendage morphology correlates with stroke risk in patients with sinus rhythm

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Objectives: Ischemic strokes without a well-defined etiology are labeled as cryptogenic, and account for 30–40% of strokes in the registries. The left atrial appendage (LAA) is the most typical origin for intracardiac thrombus formation when associated with atrial fibrillation. We examined whether LAA morphology detected with transesophageal echocardiography (TEE) constitutes a risk factor of thrombus formation and cryptogenic stroke in patients without atrial fibrillation.

Aim: To correlate LAA morphology detected by TEE with the incidence of stroke/transient ischemic attack (TIA) in patients without atrial fibrillation.

Methods: 150 consecutive pts (90 F, 60 M) with a mean age of 30.9 \pm 19.2 (16–59) years with the history of cryptogenic cerebrovascular event (TIA/stroke) and normal sinus rhythm, who underwent TEEs, were analyzed. The patients with PFO were excluded.

The diagnosis of stroke was based on the occurrence of a new and abrupt focal neurological deficit, with neurological signs and symptoms persisting for >24 hours, subsequently confirmed by computed tomography and/or MRI.

A group of 150 healthy volunteers, (90 F, 60 M), mean age of 30.8 \pm 18.2 (range 16–59), matched for age and gender served as controls.

All patients underwent TEE according to guidelines using commercially available instruments. Four different morphologies were used to categorize LAA according to the literature: Cactus, Chicken Wing, Windsock, and Cauliflower.

Results: LAA morphologies distribution differed significantly in stroke group as compared to the controls. In stroke patients this was: Cauliflower (90 [60%]), Cactus (31 [20.6%]), Chicken Wing (17 [11.3%]), Windsock (12 [8.1%]), and in the control group: Cauliflower (10 [6.7%]), Cactus (39 [26%]), Chicken Wing (40 [26.7%]) and Windsock (61 [40.6%]), ($p=0.00001$). In a multivariable logistic model, Cauliflower morphology was found to be 74% more likely to have a stroke/TIA history (odds ratio: 0.34, 95% confidence interval: 0.04 to 0.91, $p=0.011$). In a separate multivariate model, we entered Cauliflower as the reference group and assessed the likelihood of stroke in other groups in relation to

reference. Compared with Cauliflower, Cactus was 2.02 times ($p=0.017$), Windsock was 6.2 times ($p=0.022$), and Chicken Wing was 3.8 times ($p=0.023$) less likely to have a stroke/TIA.

Conclusions: Patients with Cauliflower LAA morphology are more likely to have an embolic event even in case of sinus rhythm. If confirmed, these results could have a relevant impact on the anticoagulation management of patients with cryptogenic stroke/TIA.

P6382

Atrial fibrillation after closure of persistent foramen ovale in the REDUCE clinical trial

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Background: In the Gore REDUCE clinical trial (664 patients with cryptogenic stroke), closure of a persistent foramen ovale (PFO) combined with antiplatelet treatment ($n=441$) was superior to antiplatelet therapy alone ($n=223$) in reducing the risk of recurrent stroke (77% relative risk reduction). However, transcatheter PFO closure was associated with an increased risk of atrial fibrillation (AF).

Aim: To investigate if the type of PFO occluder (HELEX or Gore Cardioform Septal Occluder), size of PFO occluder or PFO anatomical characteristics are possible risk factors for the development of AF after device implantation.

Methods and results: Data from patients randomized to PFO closure in the REDUCE trial with a size 15 ($n=3$), 20 ($n=74$), 25 ($n=260$), 30 mm ($n=68$), or 35 mm ($n=3$) Gore Cardioform (GSO, $n=250$) or HELEX ($n=158$) Septal Occluder were included in a post-hoc explorative analysis ($n=408$ received a device). AF occurred in 29 patients (7.1%) after PFO closure with a study device. Most were non-serious (66%), detected within 45 days post-procedure (83%) and resolved within 2 weeks of onset (59%). One subject with AF had a recurrent stroke and 2 subjects had a subclinical brain infarct (median follow-up 3.2 years). Univariate logistic regression (OR, CI) did not find an association between AF and recurrent stroke (2.7, 0.30–23.66, $p=0.37$) or brain infarct (1.2, 0.27–5.56, $p=0.79$). Device size 25 (1.19, 0.39–3.69, $p=0.75$) and device size 30–35 (2.65, 0.78–9.0, $p=0.12$) were not significantly associated to AF compared to device size 15–20. There was no association between post-procedural AF and the use of GSO (1.43, 0.63–3.24, $p=0.38$) compared to HELEX, nor the presence of an atrial septum aneurysm (0.58, 0.20–1.7, $p=0.32$) or atrial septal fenestrations (1.65, 0.20–13.72, $p=0.64$). Neither were PFO channel diameter (1.04, 0.93–1.17, $p=0.48$) or PFO length (0.98, 0.90–1.06, $p=0.59$) associated to AF. Multivariate logistic regression identified device size 30 (3.8, 0.97–15.41, $p=0.055$) as the strongest independent predictor of AF although not statistically significant.

Conclusion: In a post-hoc analysis of data from patients with cryptogenic stroke randomized to PFO closure in the REDUCE trial there was no statistically significant association between post-procedural AF and occluder type, occluder size or PFO anatomical characteristics.

Funding Acknowledgements: W.L. Gore and Associates

P6383

Use of routine E/A ratio echocardiographic following cerebral ischemia is associated with paroxysmal atrial fibrillation

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Background: Atrial fibrillation (AF) may cause 20 to 40% of unexplained ischemic strokes (IS) or transient ischemic attacks (TIA). AF is often paroxysmal and silent. Long-term monitoring is recommended for AF diagnosis but requires an invasive approach. Complex and modern noninvasive atrial function assessment by transthoracic echocardiography (TTE) can help to predict AF but requires time and expertise. The transmitral E/A ratio is a simple marker of diastolic function that is impaired between paroxysmal AF periods.

Purpose: We hypothesized that an increased E/A ratio measured in the acute phase of IS or TIA was independently associated with paroxysmal AF.

Method: We conducted a retrospective cohort of patients in sinus rhythm with TTE within 30 days following IS or TIA. Patients with left ventricular dysfunction (LVEF <50%), significant valvular disease and pace-maker were excluded. AF diagnosis was made by 48-hours telemetry or standard 72-hours monitoring or if reported within 6 months follow-up. Clinical and TTE variables were compared