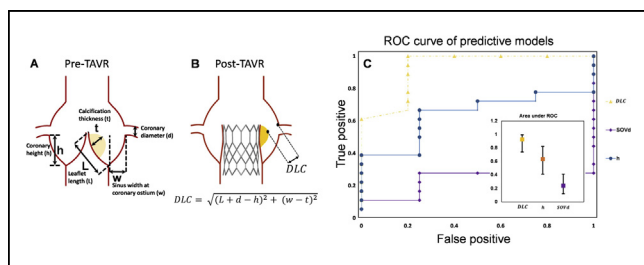


patients (Figure 1A), and the predicted Distance between the Leaflet tip and Coronary ostium after TAV deployment was calculated (Figure 1B).

**RESULTS** CO had an incidence of 21.7% (5/23) in high-risk population equivalent to 0.83% (5/600) in total, mostly occurring in left coronary artery. The left h and SOVD were 10.7mm +/- [3.9] and 30.9mm +/- [4.2] respectively. The novel CO predictive parameter *DLC* was 0.97mm +/- [0.5]. SOVD and *h* resulted in area under ROC curves [95% CI] = 0.24 [0.12-0.41] and 0.63 [0.41-0.82] respectively, while *DLC* significantly increased the area under ROC curve to 0.92 [0.74-0.99] (Figure 1C).

**CONCLUSION** With this study a novel criterion was successfully developed to screen for CO during TAVR and assist cardiologists in the pre-TAVR decision-making process. Additional measurements of aortic root variables are recommended for patient at high risk of CO.

**REFERENCES:** 1. Ribeiro HB, et al. J Am Coll Cardiol 2013;62:1552-62. 2. Yamamoto M, et al. Int J Cardiol 2016;217:58-63.



**ASD/PFO OCCLUDERS**

**CRT-700.38**

**Patent Foramen Ovale is Not Associated with Neurologic Events in Patients Undergoing Liver Transplantation**

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**BACKGROUND** Patent foramen ovale (PFO) is present in approximately 20% of individuals and may result in transient intra-cardiac shunting, a causative factor for those with cryptogenic cerebrovascular accident (CVA). During liver transplantation (LT), intra-operative transesophageal echocardiography can observe transient intra-cardiac shunting of atheromatous debris via a PFO. Closure of PFOs prior to LT has thus been suggested as a potential treatment to reduce perioperative CVAs. The objective of this study was to assess if the presence of a PFO is associated with CVAs in patients undergoing LT.

**METHODS** Three hundred fifty-eight patients undergoing LT at a single academic institution were included. All patients underwent standardized cardiac evaluation including a detailed cardiovascular history and physical examination, electrocardiogram and trans-thoracic echocardiogram (TTE). Five patients were excluded because of poor TTE image quality, and 3 patients were excluded because of PFO closure prior to LT, yielding a study population of 350. In-hospital events including major adverse cardiovascular events (MACE), death, myocardial infarction and CVA were collected.

**RESULTS** Mean age was 53.4±10.2 years; 61% male and 5% of patients had a prior history of CVA. Alcohol and hepatitis C were the most common etiologies for liver disease. MELD score at the time of LT was 28.7±11.3. Forty-six patients (13.1%) were diagnosed with a PFO. In-hospital CVA occurred in 6 patients (1.7%). The prevalence of a CVA was not significantly higher in patients with a PFO compared to patients without a PFO, 2.2% vs 1.6%, p=0.57. In-hospital mortality was similar in patients with a PFO compared to patients without a PFO, 4.4% and 5.3%, p=1.0.

**CONCLUSIONS** The presence of a PFO in patients undergoing LT is not associated with peri-operative neurologic events. Prophylactic

closure of PFOs, in the absence of other accepted indications, does not appear to be warranted in patients undergoing LT.

**CLOSURE OF VALVE LEAKS**

**CRT-700.39**

**Elective Percutaneous Paravalvular Leak Closure Under Monitored Anesthesia Care, Procedural and Clinical Outcomes. First Reported Experience in the United States**

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**BACKGROUND** Paravalvular leaks (PVL) are a well-recognized complication of prosthetic valve replacement. Most are asymptomatic and benign, but some may cause symptoms due to a large regurgitant volume or hemolysis. Surgical repair of paravalvular leak carries significant morbidity and mortality. The percutaneous approach of paravalvular leak is emerging as an alternative treatment for high-risk surgical candidates.

**METHODS** We investigated a cohort of patients admitted electively for catheter-based treatment of symptomatic prosthetic paravalvular regurgitation from Jan 2013 to June 2017. Both mitral and aortic valve PVLs were studied. Patients demographics, risk factors, procedural indications and outcomes, In-hospital and thirty-day mortality were all reported.

**RESULTS** A total of 22 patients were included (55% aortic & 45% mitral). Average hospital stay was 1-2 days (1.5 days overall cohort, less than 24 hours for the aortic subgroup). All cases were performed under moderate sedation. Technical success of the procedure was 100%. Procedural success as defined by any significant residual shunt was 77%. No procedural death reported. Short-term mortality during the first 30 days was less than 1%.

**CONCLUSION** Elective catheter-based repair of symptomatic prosthetic paravalvular regurgitation appears to be safe and effective. The use of moderate sedation with monitored anesthesia care resulted in short hospital stay.

**LEFT ATRIAL APPENDAGE**

**CRT-700.40**

**Patients Undergoing Left Atrial Appendage Closure Aged Over 80 Years Present More Bleeding Events Than Predicted by HAS-BLED Score. Results of the Iberian Registry**

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**BACKGROUND** The elderly is a sub-group of patients with an increased risk of bleeding events. We explored whether age affects the risk of gastrointestinal (GI) and major bleeding in non-valvular atrial fibrillation patients undergoing left atrial appendage closure (LAAC).

**METHODS AND RESULTS** The Iberian Registry compared two populations with non-valvular atrial fibrillation aged < or ≥80 years (465 vs 133 patients). Mean age was 71 vs 83 (p<0.001). CHA<sub>2</sub>DS<sub>2</sub>-VASc scores were 4.2±1.5 vs 5.1±1.4 (p<0.001) and HAS-BLED scores were 3.3±1.2 vs 3.5±1.1 (p=0.248). Events are presented as follow-up adjusted rate deaths: 5.7% vs 13.7% (p<0.001), stroke: 1.8% vs 2.5% (p=0.56), ICH: 0.7% vs 0.5% (p=0.64), GI bleeding: 2.8% vs 9.1% (p<0.001), and major bleeding: 4.3% vs 13.3% (p<0.001) patient-years. A significant decrease in GI bleeding events appears after 1 year with patients aged <80 years (0.5% vs 2.9% patient-years).

**CONCLUSION** The percentage of patients aged  $\geq 80$  years in LAAC series may significantly affect the incidence of major bleeding beyond that expected according to the HAS-BLED score, due to the high frequency of GI bleeding.

**CRT-700.41**

**Differences in the Percentage of Events Per Patient-year After Left Atrial Appendage Closure. Results of the II Iberian Registry**



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**INTRODUCTION AND OBJECTIVES** Many patients with non-valvular atrial fibrillation (NVAF) are still left without protection due to a contraindication for anticoagulants (OACs). Although closure of left atrial appendage (LAA) can reduce the thromboembolic/bleeding events and mortality in these patients, a better understanding of their natural history is needed. This study aimed to establish the occurrence of stroke and major bleeding events in patients with NVAF and LAA closure with medium (<24 months) and long-term (>24 months) follow-up.

**METHODS** Analysis of a multicenter single cohort prospectively recruited from 2009 to 2015. Thromboembolic and bleeding events were compared with those expected from CHA<sub>2</sub>DS<sub>2</sub>-VASc and HAS-BLED scores and according to follow-up duration. Multivariate analysis examined variables associated with mortality during follow-up.

**RESULTS** A total of 598 patients with a contraindication for oral anticoagulants (OACs) were recruited (median 75.4 years). LAA closure device implantation success was 95.8%. Thirty patients (5%) experienced periprocedural complications. Results based on a <24- or >24-month follow-up: deaths: 13.1% vs. 4.6% ( $p < 0.001$ ); ischemic stroke: 2% vs. 1.5% ( $p = 0.514$ ; expected: 8.4%); intracranial hemorrhage: 1.7% vs. 0.4% ( $p = 0.297$ ); gastrointestinal bleeding: 7.9% vs. 1.2% ( $p < 0.030$ ); major bleeding: 7.6% vs. 2.6% ( $p < 0.006$ ; expected: 6.3%). Age (HR 1.1), intracranial hemorrhage (HR 6.8) and stroke during follow-up (HR 2.7) were significantly associated with higher mortality.

**CONCLUSION** LAA closure significantly reduced the incidence of stroke from the first year. Reduction of bleeding events became significant after longer follow-up. Intracranial hemorrhage, age and stroke during follow-up were associated with higher mortality.

**CRT-700.42**

**Etiologies, Trends and Predictors Of Readmission After Left Atrial Appendage Occlusion**



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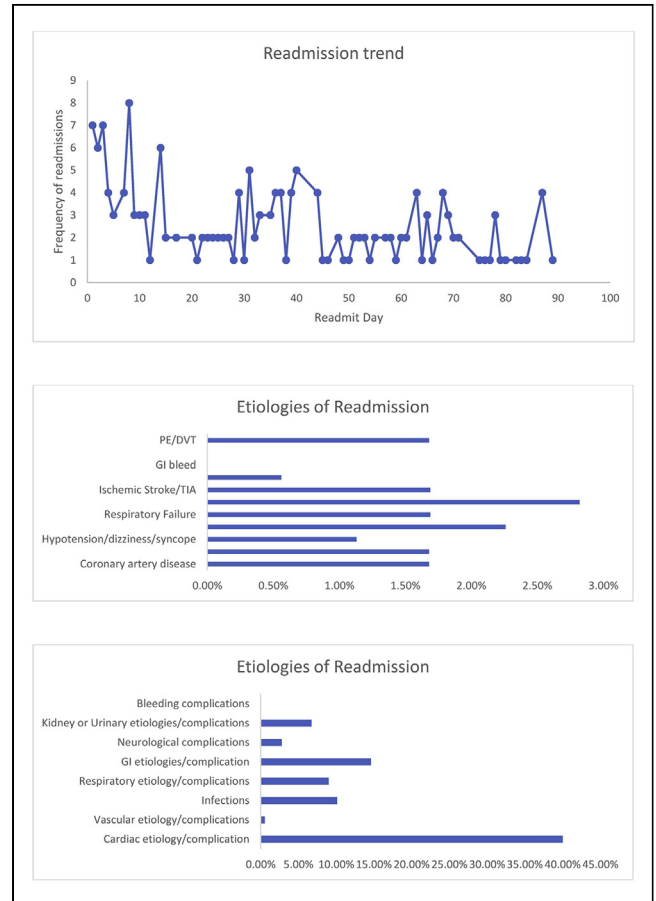
**INTRODUCTION** Left atrial appendage occlusion (LAO) is approved for non-valvular atrial fibrillation (AF) in patients who are at high risk of stroke but unable to tolerate anticoagulation. We studied the causes and predictors of readmission after LAO.

**METHODS** National Readmission Database (NRD) 2013 to 2014 was utilized to select study cohort. International Classification of Diseases, 9<sup>th</sup> revision (ICD-9CM) procedure code 37.90 was used. Admission within 90 day of index admission was considered as early readmission. Hierarchical two-level logistic models were used to evaluate outcomes.

**RESULTS** Among study cohort (n=1209), 20.3% (n= 246) were readmitted within 90 days of discharge following index admission. Most common etiologies for readmission were cardiac (40.04%, Heart failure-14.67%), respiratory (9.01%), GI (14.62%). Ischemic stroke/TIA happened in 1.69% of patients. Highest number of readmissions happened on 8<sup>th</sup> day after discharge (n= 8). Significant predictors of

readmission were Anemia (OR 2.09, 95% CI 1.25-3.4), Peripheral vascular disease (OR 2.26, 95% CI 1.29-3.9).

**CONCLUSION** We identified high-risk population for readmission following LAO as well as trends and most common causes of readmission, which could be utilized to implement individualized health care transition to reduce readmission, related cost.



**CRT-700.43**

**Incidence, Predictors and Prognostic Value of Acute Kidney Injury Among Patients Undergoing Left Atrial Appendage Closure**



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**BACKGROUND** No data exist on the occurrence of acute kidney injury (AKI) after left atrial appendage closure (LAAC). The aims of this registry were to determine the incidence, predictors and prognostic value of periprocedural AKI after LAAC.

**METHODS** A total of 355 patients undergoing LAAC were included in the study. Acute kidney injury was defined as an absolute or a relative increase in serum creatinine of >0.3mg/dl or  $\geq 50\%$ , respectively, after the procedure or the need for haemodialysis during index hospitalization.