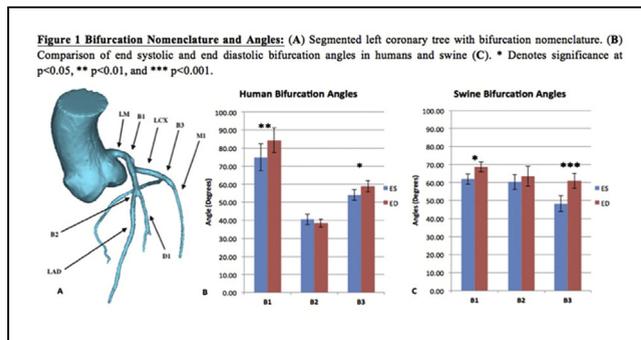


28.9%). The bifurcation angle at B2 was significantly greater in swine compared to humans in end systole and end diastole (32.8%; 39.5%).

**CONCLUSION** A significant change in bifurcation angle and cross sectional area was observed over the cardiac cycle, however few compliance differences were noted across each bifurcation. These data illustrate that the coronary artery bifurcations are a dynamic environment in both humans and swine, which presents a challenge in pre-clinical modeling and stent design.



### CRT-200.67

#### Gender Disparities in the Vanderbilt Stemi Network: Insights From a Five Year Experience (2009-2014)

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**BACKGROUND** Gender disparities have been observed in ST elevation myocardial infarction (STEMI) patients with women experiencing lengthier reperfusion times. There is limited data about persistence of these discrepancies in the current era in a real world setting.

**METHODS** A retrospective analysis of our institutional STEMI network database was done to include all patients with complete metrics from January 2009 to July 2015 who were transferred to our center with STEMI. Multiple imputation was used to account for any missing data. Patients were stratified based on gender to compare patient characteristics, outcomes, and quality measures.

**RESULTS** A total of 632 patients (132 women) were included in the analysis. Women were older ( $62.5 \pm 13.5$  vs.  $59.3 \pm 12.3$  years,  $p < 0.05$ ) but there was no difference in other demographics and pre-existing co-morbidities. Women were transferred over longer distances ( $43.2 \pm 22.3$  vs.  $38.8 \pm 23.9$  miles,  $p = 0.05$ ). Female gender was associated with a higher time to activation of cardiac catheterization laboratory (53.1 vs. 37.2 minutes,  $p < 0.05$ ), but there was no difference in door-to-(electrocardiogram) EKG-time (17.1 vs. 13.5 minutes,  $p > 0.05$ ), door-in door-out (DIDO) time (110 vs. 91 minutes,  $p > 0.05$ ), transportation time (36.2 vs. 32.9 minutes,  $p > 0.05$ ), first medical contact to balloon time (182.6 vs. 159.3 minutes,  $p > 0.05$ ) or total procedure time (36.2 vs. 35.8 minutes,  $p > 0.05$ ). Women were more likely to present with systolic blood pressure  $< 100$  mmHg (6% vs. 3%,  $p = 0.05$ ), femoral access was used more often in women (39.3% vs. 20%,  $p < 0.001$ ), norepinephrine was used more frequently in women (9% vs. 4%,  $p < 0.05$ ) but there was no difference in the use of other vasopressors, inotropes or mechanical circulatory support. On univariate analysis, in hospital mortality was higher in women (10% vs. 5%,  $p < 0.05$ ) but after adjusting for confounders, gender was no longer associated with higher mortality (adjusted odds ratio, 1.3; 95% CI, 0.6-2.9,  $p > 0.05$ ). On linear regression, female gender, longer door-to-EKG time, longer transfer distance and longer DIDO time were the independent predictors of longer time to activation of catheterization laboratory ( $R^2=0.79$ ,  $p < 0.0001$ ).

**CONCLUSION** Data from a single STEMI network suggests that in the current era in a real world setting, women transferred for STEMI may have longer time to activation of cardiac catheterization laboratory than men. There is a need to further streamline systems and improve quality measures in STEMI networks, especially for women.

### CRT-200.68

#### Sheathless Transradial Approach Using Large Bore Catheters vs Other Vascular Access for Chronic Total Occlusions Percutaneous Coronary Intervention: The Quebec CTO Program Experience

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**BACKGROUND** The use of the transradial approach (TRA) in percutaneous coronary intervention (PCI) of chronic total occlusions (CTO) is still limited. We describe one of the largest single-center experiences, which evolved from 6F to a novel sheathless technique (ST) with regular 8F antegrade guides. We evaluated the safety of this technique.

**METHODS** We compared our earlier experience (EE) using 6-7F catheters to the latest one (LE), introduced in March 2013 favoring the use of 8F, either from the radial or the femoral (TFA). We then compared ST vs. standard TRA or TFA. The in-hospital outcomes of interest were technical success, contrast, radiation, procedure time, and the incidence of major vascular or bleeding complications. In a sub-sample, we examined radial patency using Doppler at 3-6 months.

**RESULTS** From 01.2010 to 03.2015, a total of 409 CTO PCIs were performed: 223 during the EE, whereas 186 in LE favoring 8F catheters. Despite an increase of the proportion of patients with very difficult lesions (J-CTO score  $\geq 3$ ) in LE (from 39% to 51%,  $p=0.02$ ), we did not observe any difference with regards to success, procedure time, or in the incidence of major complications. However, contrast use was higher in LE ( $355 \pm 152$  ml vs.  $292 \pm 124$  ml,  $p < 0.0001$ ). Over the 2 years of LE, 92 patients underwent their CTO PCI with a ST and 94 without a ST. Patients not treated with a ST were more likely to be females (33% vs 5% in ST group,  $p < 0.0001$ ), diabetic (51% vs 36%,  $p=0.04$ ) and to undergo their CTO PCI with at least one TFA. Again, we did not observe any difference with regards to success, procedure time, or in the incidence of major vascular or bleeding complications, which were very low in both groups. The ST did not increase procedure time (143 min vs 154 min with the sheath,  $p=NS$ ). The mid-term radial Doppler evaluation of 28 patients demonstrated 7.1% radial occlusions with the 8F ST, while 3.6% with 6F in the contralateral radial artery (control).

**CONCLUSION** A liberal use of the TRA with selected TFA for CTO PCI is associated with low complication rates. Our 8F sheathless technique for TRA in CTO PCI is feasible and safe when compared to the use of 6F standard PCI and provides unlimited spectrum of CTO PCI technique available to transfemoral CTO operators.

### CRT-200.70

Abstract Withdrawn

### CRT-200.71

#### Initial Commercial Experience With Orbital Atherectomy in Calcified Coronary Artery Disease

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**BACKGROUND** Severely calcified lesions present many challenges to PCI. Orbital Atherectomy System (OAS) is a device which allows for vessel preparation and treatment of severely calcified coronary lesions. This study evaluated clinical safety and results of the initial commercial experience of OAS in a real world setting.

**METHODS** A retrospective analysis was completed on all coronary OAS cases at our institutions that occurred between April 2014 thru August 31, 2015 ( $n=112$ ). In-hospital and 30 day outcomes were assessed for procedure success, complications and device related events. Statistical analysis was performed using SPSS (IBM V.22).

**RESULTS** Baseline and procedural characteristics are described in the table below. Perforation occurred in 0.9% ( $n=1$ ), dissection occurred in 1.8% ( $n=2$ ), and no-reflow phenomenon occurred in 0.9% of cases ( $n=1$ ). There were no cases of bleeding complications, emergent