Impact of Left Main Percutaneous Coronary Intervention Operator mus-eluting stent

KEYWORDS Biodegradable polymer, Coronary artery disease, Siroli-

Bo Xu,1 Nicolas Bettinger,2 Yuejin Yang,3 Shubin Qiao,4 Yongjian Wu,4 Coronary Intervention (PCI): Insight from a Cohort of 1,948 Patients

Experience and Volume on Outcomes after Left Main Percutaneous

The average number of stents per patient was 1.41 ± 0.56; and mean stent length was 26.6 ± 9.3 mm. Clinical follow-up at 9-month was completed in 99.1% of patients (986/995). MACE rates at in-hospital, 30-day and 6-month were 0.4% (4/995), 1.1% (11/995) and 2.2% (22/986). At 9-month, the primary endpoint occurred in 26 (2.6%) of 986 patients, consisting of 11 (1.1%) cardiac deaths, 16 (1.6%) MI, and 6 (0.6%) TLR. Cumulative MACE-free survival at the 9-month clinical follow-up determined by Kaplan-Meier method was 97.4%. According to the ARC definition, definite and probable stent thrombosis occurred in 1.1% (10/995) up to the 9-month follow up.

CONCLUSIONS The FLEX-Registry evaluated clinical outcomes in real-world and more complex cohorts and thereby provides evidence to the clinicians for safe and routine extended use of Supraflex SES to a broader percutaneous coronary intervention population.

CATEGORIES CORONARY: PCI Outcomes

Keywords Biodegradable polymer, Coronary artery disease, Sirolimus-eluting stent

TCT-484 Impact of Left Main Percutaneous Coronary Intervention Operator’s Experience and Volume on Outcomes after Left Main Percutaneous Coronary Intervention (PCI): Insight from a Cohort of 1,948 Patients

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BACKGROUND The impact of operator experience and volume of left main (LM) percutaneous coronary intervention (PCI) performed yearly on outcomes after LM PCI is unknown. To characterize the impact of LM-PCI operator’s experience and volume on the occurrence of adverse events after LM-PCI.

METHODS High volume LM-PCI operators were defined as performing at least 15 LM PCI cases per year, for at least 3 consecutive years. Thirty day and 9-year outcomes were reported and compared between high-volume and low-volume operators.

RESULTS From January 2004 to December 2011, 25 operators performed 1,948 LM-PCI in a single center. Among them, 7 were considered high-volume and performed 1,422 (73%) LM-PCI and 18 operators were considered low-volume and performed 526 (27%) procedures. The number of LM-PCI performed by each high-volume operator was 25.5 ± 8 and 4.3 ± in the high-volume and low-volume group, respectively. Patients treated within the high-volume operator group were in general more complex, with higher SYNTAX score, higher SYNTAX score II, more often 3-vessel disease, and with more frequently LM lesions involving the distal segment (bifurcation) requiring two stents implantation. Intravascular ultrasound was more often used by the high-volume operators compared to the other group (39.2% vs. 31.7%). Thirty-day outcomes demonstrated significantly lower rates of death and cardiac death, with trend toward lower rate of myocardial infarction and stent thrombosis (Figure). At 3 years of follow-up, patients treated with high-volume operators showed significantly lower rate of cardiac death (2.5% vs. 4.6%, p = 0.02), with no significant difference in rate of ischemia driven target vessel revascularization (6.8% vs. 5.1%, p = 0.20) when compared with the low-volume operators. After multivariate analysis, high-volume LM operator patients treatment was associated with freedom of 3-year cardiac death (adjusted HR 1.90 95% CI = [1.10, 3.30] p = 0.02).

CONCLUSIONS Despite treating more complex and higher-risk patients, high-volume operators had better short and long-term prognostic compared with low-volume operators when performing LM-PCI. These findings could be important when considering minimal operator’s volume requirement for the treatment of this high-risk lesion subset.

CATEGORIES CORONARY: PCI Outcomes

Keywords Left main coronary artery, Outcomes, Percutaneous coronary intervention

TCT-485 Effect of Gender on Clinical Outcomes in Patients With or Without Myocardial Infarction Undergoing Percutaneous Coronary Intervention: Results from a Large Single Center Registry

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BACKGROUND Women with coronary artery disease (CAD) undergoing percutaneous coronary intervention (PCI) are at higher risk of early and late major adverse cardiac events (MACE) compared with male subjects. Moreover, previous studies suggest a differential prognostic impact of clinical presentation between genders. In this study, we sought to investigate the effect of gender according to clinical presentation on clinical outcomes.

METHODS We retrospectively analyzed patients from a large single-center PCI registry treated between January 2009 and December 2013. Study population was categorized according to gender and presence or not of myocardial infarction (MI) at time of PCI. Endpoints of interest were all-cause mortality, MI and cerebrovascular events (CVEs) at 1 year after the index procedure.

RESULTS Out of 15,988 patients included in the present analysis, 10,764 (67%) were males and 5224 (33%) were females. Of them, 1,198 (7%) and 672 (4%) presented with an MI in the male and female group, respectively. In both groups, women were older, more commonly affected by multiple comorbidities but had lower CAD complexity compared with men. A stepwise increase in the rates of mortality, MI and CVE was observed in the transition from male with no MI, to female with no MI, to male with MI to female with MI (Figure 1). Following multivariable adjustment for baseline confounders, women with MI had similar risk of all-cause mortality (HR: 1.02; 95% CI: 0.81 – 1.28), MI (HR: 1.55; 95% CI: 0.93 – 2.59) and CVE (HR: 2.44; 95% CI: 0.64 – 9.36) to that of the male counterpart. The effect of gender across clinical presentation was uniform, without evidence for inter- action for the investigated outcomes.