Conclusion: The SPIRIT PRIME study demonstrated sustained 2-year safety and efficacy of the new XIENCE PRIME EES with low cardiac death, MI and CI-TLR rates in both core size and long lesion cohorts and no new ARC definite/probable ST events in either arm.

Abstract Withdrawn

TCT-610

Long-Term Outcomes of Complete Versus Incomplete Revascularization After Drug-Eluting Stent Implantation in Patients with Multivessel Coronary Disease

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Background: This study was conducted to investigate the impact of complete revascularization (CR) vs. incomplete revascularization (IR) on long-term outcomes in patients with multivessel coronary disease (MVD) in current practice of percutaneous coronary intervention (PCI).

Methods: Between April 2004 and November 2010, 7376 consecutive patients with MVD underwent PCI at our center. Patients who underwent prior CABG and those who had an acute myocardial infarction (MI) within 24 hours before revascularization or presented with cardiogenic shock were excluded.

Results: Among 7065 patients with MVD undergoing PCI treatment, angiographic CR was performed in 1188 patients (16.8%), and proximal CR in 2053 patients (29.1%). The study found that either angiographic or proximal IR was associated with significantly higher estimated 3-year rate of cardiac death (2.55% vs. 1.13%, log-rank p = 0.016; and 2.70% vs. 1.43%, log-rank p = 0.024, respectively). After adjustment for differences in baseline characteristics between IR and CR patients, angiographic IR was associated with a significantly higher rate of cardiac death (adjusted hazards ratio [HR]: 2.56, 95% confidence interval [CI]: 1.03 to 6.41) while proximal IR was associated with a numerically higher rate of cardiac death (adjusted HR: 1.72, 95% CI: 0.93 to 3.17). For the subgroup of ≥2- vessel IR with total occlusion, either angiographic or proximal IR patients had significantly higher rate of cardiac death (adjusted HR: 4.25, 95% CI: 1.50 to 12.0; and adjusted HR: 3.02, 95% CI: 1.40 to 6.52; respectively).

Conclusions: Compared with IR, patients with CR had better clinical outcomes, especially when only single vessels were treated, supporting CR as first choice for patients with MVD.

TCT-611

Effect of stent inflation pressure and post-dilatation on the outcome of coronary artery intervention. A report of more than 90 000 stent implantations

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Background: PCI stent inflation pressure correlates to angiographic lumen improvement and stent expansion but the relation to outcome is not clarified. Using comprehensive registry data our aim was to evaluate how stent inflation pressure influences restenosis and stent thrombosis following PCI.

Methods: We evaluated all consecutive coronary stent implantations in Sweden from January 1, 2008, to October 26, 2011 using data from the Swedish Coronary Angiography and Angioplasty Registry (SCAAR). We used logistic regression and Cox proportional hazard modeling to estimate risk of outcomes with different balloon pressures.

Results: In total, 93 697 stents were eligible for analysis and divided into five different pressure interval groups: ≤15 atm, 16-17 atm, 18-19 atm, 20-21 atm and ≥22 atm. The risks of stent thrombosis (Fig.) and restenosis were significantly higher in the ≤15 atm, 18-19 atm and ≥22 atm groups (but not in the 16-17 atm group) compared to the 20-21 atm group. Post-dilatation was associated with a higher restenosis risk ratio (RR) of 1.22 (95% confidence interval [CI] 1.14-1.32, P<0.001) but stent thrombosis did not differ statistically between procedures with or without post-dilatation.

Conclusions: Our retrospective study identified a possible optimal stent inflation pressure of 20-21 atm during PCI which was associated with a lower risk of stent thrombosis and restenosis. Post-dilatation might increase restenosis risk.