A Comparative Analysis of Major Clinical Outcomes with Drug-Eluting Stents versus Bare Metal Stents in Male versus Female Patients

TCT-204

Background: The impact of different types of stents on clinical outcomes is of great importance because coronary disease is a major cause of morbidity and mortality for both genders. This study aimed to conduct a risk-adjusted gender-based analysis of clinical outcomes following drug-eluting stent (DES) versus bare metal stent (BMS) implantation in patients with coronary artery disease.

Methods: We compared risk-adjusted total mortality rate, myocardial infarction, and event-free survival in a consecutive cohort of 7,662 patients undergoing percutaneous coronary intervention at our institution, including 1,835 (25.4%) women. Follow-up was 6 months to 2 years (mean 3.5 years, median 3.6 years).

Results: Women were older than men and more likely to suffer from diabetes, hyperlipidemia, or congestive heart failure. Smokers were more often men, and men were more likely to have had prior coronary bypass surgery compared to women. A DES was used in 39.9% of males and 39.3% of females. Both genders derived a significant long-term clinical benefit from DESs compared to BMSs; advantages were observed for mortality (men: HR=0.78, 95% CI: 0.64 - 0.96, p=0.016; women: HR=0.62, 95% CI: 0.45 - 0.85, p=0.003) and major adverse cardiac events (men: HR=0.73, 95% CI: 0.63-0.84, p=0.001; women: HR=0.76, 95% CI: 0.52-0.94, p=0.01). Among BMS-treated patients, women had worse cumulative clinical outcomes than men. DESs eliminated the gender differences in cardiac prognosis.

Conclusion: Our analysis indicated a profound prognostic advantage for DESs versus BMSs among both genders, though female patients appeared to derive the greatest benefit.

The Nine-Month Outcomes of a Polymer-Free Drug-Eluting Stent (YUKON) Compared with Different Polymer Based Drug-Eluting Stents in Real-World Coronary Artery Lesions

TCT-205

Background: We compared the safety and efficacy of different polymer-based drug-eluting stents (PDES) with a polymer-free drug-eluting stent (P-Fus-Yukon). In unselected real-world patients with coronary lesions of various complexities, we retrospectively compared both stent designs.

Methods: A total of 617 lesions in patients with symptomatic CAD were treated with P-Fus-Yukon (n=265) or PDES (n=352) at our center. The study was powered to detect a 1% absolute difference in rate of the primary endpoint after 9 months, assuming a 12% event rate in the P-Fus-Yukon group.

Results: Follow-up was obtained in 98.2% of patients. All patients were treated with clopidogrel and aspirin during follow-up. Procedure-free stents were non-inferior to polymer-based stents for the primary endpoint at 9 months (15.6% vs 21.5%; HR: 0.73; 95% CI: 0.48-0.82, p=0.001). For mortality and myocardial infarction, the superiority of the P-Fus-Yukon was confirmed.

Conclusion: The Nine-Month Outcomes of a Polymer-Free Drug-Eluting Stent (YUKON) Compared with Different Polymer Based Drug-Eluting Stents in Real-World Coronary Artery Lesions.