REAL-WORLD COMPARISON BETWEEN 1ST AND 2ND GENERATION DRUG-ELUTING STENTS: INSIGHTS FROM THE DESIRE REGISTRY

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Coronary II
Abstract Category: 32. TCT@ACC-i2: Complex Patients/Comorbidities
Presentation Number: 2101-290

Authors: Jose de Ribamar Costa, Amanda Sousa, Adriana Moreira, Manuel Cano, Galo Maldonado, Lucas Damiani, J Eduardo Sousa, Hospital do Coração, São Paulo, Brazil

Background: Despite the data from controlled trials pointing to improved clinical results with 2nd generation DES as compared to the 1st generation, there is still a paucity of information on their long-term performance in the “real-world” clinical practice.

Methods: The DESIRE registry is a prospective, single-center registry with all consecutive patients (pts) treated with DES since May 2002. To compare the outcomes of pts treated with 1st and 2nd generation DES, a propensity score model was built to minimize the difference between the cohorts. The primary endpoint was the comparison of MACE and stent thrombosis (ST) up to 2 years of follow-up.

Results: A total of 5,614 pts were enrolled in the DESIRE. After propensity score adjustment, the outcomes of 1,135 pairs of pts treated with 1st and 2nd generation DES were compared. The cohorts were comparable in terms of clinical profile, with relatively high incidence of diabetics (33%) and STEMI pts (17%). Conversely, 2nd generation pts had more LM disease (1.1% vs. 2.3%, p=0.005), ostial lesions (3.8% vs. 6.5%, p<0.001) and bifurcations (7.2% vs. 10.3%, p<0.001). In terms of clinical performance, there was no significant difference in MACE between the groups (Figure, panel A), although 2nd generation significantly reduced MI (Figure, panel B), and tended to reduce ST (Figure, panel C).

Conclusion: The use of 2nd generation DES was associated with similar efficacy profile and improvement in safety performance, with a marked reduction in MI occurrence.