Angiographic efficacy of Everolimus versus Resolute Zotarolimus - Eluting Stent in Long or Diabetic Coronary Artery Disease: Result from LONG-DES III, IV, ESSENCE-DIABETES I, and II trials

Long-Term Clinical Outcomes of Multiple Overlapping (≥260mm) Drug-Eluting Stent Implantation

Very-long term (11 years) follow up of a single center, complex cohort of patients treated exclusively with drug-eluting stents

Clinical Outcomes Following Resolute Zotarolimus-eluting Stent Implantation in Diabetic Versus Non-Diabetic Patients Suitable for Percutaneous Coronary Revascularization: Insights From a Multicenter Italian Registry

Background: Despite the extensive knowledge accrued on DES in the past years, there is still lack of consistent data on the very late outcomes of these devices, especially after 5 years of their implantation. We sought to provide the longest clinical follow-up data on outcomes of unselected patients treated solely with DES.

Methods: The DESIRE registry is a prospective, single-center registry encompassing all consecutive patients treated solely with DES since May 2002. The primary goal is the very long-term occurrence of MACE and stent thrombosis (ST). Patients were clinically followed at 1, 6 and 12 months and then annually.

Results: A total of 4,790 patients were included. The mean age was 64 ± 11 years. DM was detected in 29.7% and 44.8% presented with acute coronary syndrome. Follow-up was obtained in 98.5% of the patients (median 5.6 years). Currently, 79.6% of the population is free of any MACE. TVR was performed in 5.3% of the patients. Q-wave MI rate was only 1.7% while total ST rate was 1.9%. The majority of definite ST cases occurred between the 1st and 3rd years. Independent predictors of MACE were treatment of SV (HR 1.63; 95% CI, 1.22 to 2.18, p = 0.001), multivessel disease (HR 1.39; 95% CI, 1.03 to 1.87, p = 0.001), residual stenosis (HR 1.3; 95% CI, 1.1 to 1.5, p = 0.034), DM (HR 1.3; 95% CI, 1.1 to 1.5, p = 0.034), absence of diabetes (HR 1.5; 95% CI, 1.34 to 1.81, p = 0.004), Independent predictors of ST were PCI for STERI (HR 3.5; 95% CI, 1.3 to 9.4, p = 0.013), stent length (HR 1.8; 95% CI, 1.09 to 3.02, p = 0.023), moderate/severe calcification at lesion site (HR 2.38; 95% CI, 1.34 to 4.23, p = 0.003), and in-stent residual stenosis (HR 1.04; 95% CI, 1.01 to 1.06, p = 0.028).

Conclusions: The DESIRE registry probably represents the longest FU of a real world cohort treated solely with DES. In our single center experience, the use of DES was associated with very long-term safety and effectiveness with acceptable low rates of acute and clinical events, including ST. Also, there was no steady annual increase in the occurrence of ST, with a marked decrease of this complication after the 3rd year of FU.