A193.E1802
JACC March 9, 2010
Volume 55, issue 10A

i2 SUMMIT

COMPARATIVE ANTIRESTENOTIC EFFICACY OF BIODEGRADABLE POLYMER AND PERMANENT POLYMER DRUG-ELUTING STENTS: THE ANGIOGRAPHIC FOLLOW-UP RESULTS OF THE ISAR-TEST-4 RANDOMIZED TRIAL

i2 Poster Contributions
Georgia World Congress Center, Hall B5
Sunday, March 14, 2010, 3:30 p.m.-4:30 p.m.

Session Title: DES II, Restenosis, Left Main and Outcomes
Abstract Category: PCI - DES
Presentation Number: 2502-422

Authors: *Sebastian F. Kufner, Robert A. Byrne, Stefanie Schulz, Katrin A. Birkmeier, Klaus Tiroch, Susanne Pinieck, Silvia Hurt, Jürgen Pache, Julinda Mehilli, Deutsches Herzzentrum, Technische Universität, Munich, Germany, 1. Medizinische Klinik, Klinikum rechts der Isar, Technische Universität, Munich, Germany*

Background: We previously demonstrated that a biodegradable polymer drug-eluting stent (DES) was non-inferior to permanent polymer DES in the ISAR-TEST-4 randomized trial, a study powered for clinical endpoints. In the current analysis we compare the antirestenotic efficacy of these stents at 6-8-month angiographic follow up.

Methods: Patients with de novo coronary lesions in native vessels were randomly assigned to receive a biodegradable polymer (BP) sirolimus-eluting stent or a permanent polymer (PP) sirolimus/everolimus eluting stent. In this analysis we focused on 2 major angiographic enpoints of interest: in-stent late lumen loss and in-segment binary restenosis at 6-8- month follow-up angiogram.

Results: Of a total of 2603 patients (3372 lesions): 1299 patients (1683 lesions) received BP stents, 1304 patients (1689 lesions) were treated with PP stents. Repeat angiography was available for 2637 lesions (78.2%). Mean late lumen loss was 0.24 ± 0.54 mm in the BP stent group, 0.26 ± 0.57 mm in the PP group (p=0.49). In-segment binary restenosis occurred in 153 lesions (11.6%) in the BP group and 155 lesions (11.8%) in the PP Group (p=0.85). The BP stent group showed similar rates of target vessel revascularization 170 (13.7%) in the BP and 172 (13.9%) in the PP Group, (p= 0.83).

Conclusions: This analysis showes that the antirestenotic performance of the BP stent is compareable to that of the PP stent.

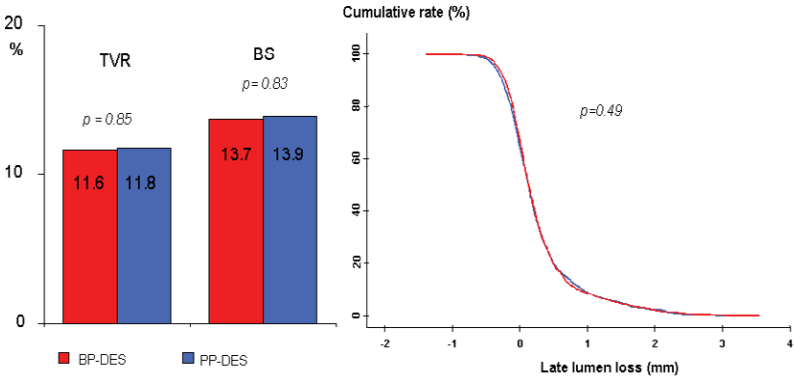

Figure 1: Target vessel revascularization (TVR) at 1 year and in segment binary restenosis (BS) at 6-8 month follow-up angiogram

Figure 2: Cumulative rate of late lumen loss at 6-8 month follow-up angiogram