SIROLIMUS ELUTING- VS. PACLITAXEL ELUTING STENT IN PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION AND RENAL INSUFFICIENCY UNDERGOING PRIMARY ANGIOPLASTY

i2 Poster Contributions
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Background: There is limited data regarding the comparison of sirolimus eluting- (SES) and paclitaxel eluting stent (PES) in patients with renal insufficiency undergoing primary percutaneous coronary intervention (PPCI).

Methods: A total of 4770 patients with STEMI were registered in nationwide acute myocardial infarction registry conducted at 50 hospitals in Korea from October 2005 to June 2007. Among them, 796 with baseline creatinine clearance (CrCl) ≤ 60mL/min were enrolled who received either SES or PES stent and were followed up at 6- and 12-month. The primary endpoint was the composite of major adverse cardiovascular events (MACE), defined as death, myocardial infarction, and any repeated revascularization.

Results: SES receiving patients demonstrated lower rate of MACE than patients with PES, 3.8% (18/468) vs. 7.3% (24/328) (P=0.036) at 6-month. A nonsignificant trend was also detected in favor of SES as compared with PES, in the rate of cardiac death (1.9 vs. 3.7%), reinfarction (0.2 vs. 0.6%) and target lesion revascularization (1.7 vs. 3.0%). At 1-year, the rate of primary endpoint was also significantly lower in SES than in PES group (6.2% (29/468) vs. 10.1% (33/328) (P=0.045)). There was also a tendency toward favoring SES than PES, in cardiac death (3.0 vs. 5.2%) and target lesion re-intervention (2.6 vs. 4.3%). However the incidence of stent thrombosis was not different between SES and PES groups (0% [0/468] and 0.3% [1/328], respectively, p=0.422). SES use was an independent negative risk factor for MACE at 12-month by multiple regression analysis (OR=0.45, 95% CI [0.216-0.921], p=0.029).

Conclusion: SES was associated with less cardiac events than PES in patients with both renal insufficiency and STEMI undergoing PPCI at 6-month and 12-month.