

Drug-Eluting Versus Bare-Metal Stents for Treatment of Acute Myocardial Infarction with Renal Insufficiency: Results from Korea Acute Myocardial Infarction Registry

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Background: Patients with chronic kidney disease have been had conflicting results between drug-eluting stents (DES) and bare-metal stents (BMS). The aim of the present study was to determine whether DES is preferable for the treatment of AMI with renal insufficiency and to elucidate the impact of diabetic mellitus (DM) on outcomes of each stents.

Methods: As a part of the Korea Acute Myocardial Infarction Registry (KAMIR), 2175 AMI patients with renal insufficiency (GFR <60 ml/min) comprising 208 patients with BMS and 1967 DES implantation were enrolled. Primary outcome was major adverse cardiac event (MACE), defined as a composite of mortality, nonfatal myocardial infarction, and target lesion revascularization (TLR).

Results: In the overall population, the MACE rate at 1 year was significantly higher in the BMS group than that of DES (44 % vs. 26%, $p<0.05$), which was mainly due to death rather than re-PCI (44 % vs. 26%, $p<0.05$). In the diabetic group with DES implantation, the MACE rate was increased compared to the DES group without DM, mainly due to re-PCI (5 % vs. 8%, $p<0.05$).

Conclusion: In AMI patients with renal insufficiency, DES implantation exhibits a favorable 1 year clinical outcomes than BMS implantation. Subgroup analysis for diabetic subjects showed worse outcomes in DM group with implanted DES.

Key Words: Acute myocardial infarction, GFR, Drug eluting stent