ACC.13
62ⁿᵈ Annual Scientific Session & Expo
TCT@ACC-i2
innovation in intervention

⬥ Acute Coronary Syndromes

SECOND-GENERATION DRUG-ELUTING STENTS VERSUS BARE-METAL STENTS IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

Poster Contributions
Poster Sessions, Expo North
Sunday, March 10, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Percutaneous Coronary Intervention for AMI: Predictors of Outcome
Abstract Category: 1. Acute Coronary Syndromes: Clinical
Presentation Number: 1216-208

Authors: *Sungmin Lim, Ik Jun Choi, Mineok Chang, Jin Jin Kim, Minkyu Kang, Byung-Hee Hwang, Tae-Hun Kim, Suk Min Seo, Yoon Seok Koh, Pum Joon Kim, Kiyuk Chang, Wook Sung Chung, Eun ho Choo, Donggyu Moon, Jae Gyung Kim, Ki-Bae Seung, Catholic medical center, Seoul, South Korea*

Background: There have been few studies that comparing the efficacy and safety of bare-metal stents (BMS) versus second-generation drug-eluting stents (DES) in patients with acute myocardial infarction (AMI).

Methods: We analyzed consecutive 1,267 AMI patients underwent percutaneous coronary intervention (PCI) using BMS or 2nd generation DES in COREA-AMI (COnvergent REgistry of cAtholic and chonnAm university for AMI) enrolled from January 2004 to December 2009. We compared cardiac death, non-fatal myocardial infarction (MI), and target lesion revascularization (TLR) and target lesion failure (TLF) including cardiac death, non-fatal MI or TLR according to stent type.

Results: Median follow up duration was 29 months (interquatile range 21 - 40). A total of 384 patients and 883 patients were treated with BMS and 2nd generation DES, respectively. The rate of cardiac death, non-fatal MI, target lesion revascularization and TLF was higher in BMS (18.5 % vs. 8.4 %, p<0.001, 3.4 % vs. 1.2 %, p=0.01, 11.2 % vs. 4.2 %, p<0.001, 30.3 % vs. 13.8%, p<0.001, respectively). Furthermore, the using of 2nd generation DES reduced independently TLF (hazard ratio 0.642, 95 % confidence interval 0.481-0.857, p=0.003) in multivariate Cox hazard regression model (table 1).

Conclusions: In patients with acute myocardial infarction, treatment with second-generation DES is associated with decreased TLF as compared with treatment with BMS.

Table 1. Hazard ratio for target lesion failure

	Adjusted HR (95% CI)	P value
Second generation DES	0.642 (0.341-0.857)	0.003
Age	1.012 (0.001-1.023)	0.029
Initial systolic blood pressure	1.000 (0.996-1.005)	0.854
Killip classification	1.818 (1.285-2.574)	0.001
Chronic kidney disease	2.498 (1.614-3.867)	<0.001
Multi-vessel disease	1.271 (0.962-1.679)	0.091
No reffow	1.262 (0.923-1.727)	0.145
LV ejection fraction	0.981 (0.970-0.992)	0.001