

LONG-TERM OUTCOMES OF INTRAVASCULAR ULTRASOUND GUIDANCE BARE METAL STENT VERSUS DRUG ELUTING STENT IMPLANTATION IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION UNDERGOING PRIMARY PERCUTANEOUS CORONARY INTERVENTION

i2 Poster Contributions

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Authors: *Seung-Ho Hur, Ji-Hyun Son, Hong-Won Shin, Yun-Kyeong Cho, Hyoung-Seob Park, Hyuck-Jun Yoon, Hyungseop Kim, Chang-Wook Nam, Yoon-Nyun Kim, Kwon-Bae Kim, Keimyung University Dongsan Hospital, Daegu, South Korea*

Background: IVUS guidance may offer the optimization of stent deployment during primary percutaneous coronary intervention (PPCI). However, limited data are available regarding the impact of IVUS guidance DES versus bare metal stent (BMS) implantation on long-term outcomes in patients undergoing PPCI.

Methods: From January 2000 to July 2008, a total of 228 STEMI patients were received either DES (n=171) or BMS (n=57) under IVUS guidance. The 2-year incidences of major adverse cardiac events (MACE), including death, myocardial infarction (MI), target vessel revascularization (TVR) and stent thrombosis were evaluated.

Results: Patients were older in the DES group, whereas larger stent size and higher frequency of intracoronary thrombus by coronary angiography were observed in the BMS group ($p < 0.05$ for all). There were no differences in all-cause mortality or MI between DES and BMS at 2-year follow-up. However, 2-year incidence of TVR was 7.6% in the DES group versus 24.6% in the BMS group ($p = 0.001$). Therefore, the rate of 2-year MACE was significantly lower in the DES group (8.8% vs. 26.3%, $p = 0.001$). The 2-year incidence of definite ST was not different between the 2 groups (1.8% vs. 2.3%, $p = 1.0$). On multivariate analysis, IVUS guidance DES implantation was associated with lower rate of 2-year MACE (hazard ratio=0.12, 95% CI=0.04 to 0.34, $p < 0.001$), when compared with BMS.

Conclusion: In patients treated with PPCI under IVUS guidance, the use of DES reduced the incidence of 2-year MACE compared to BMS.

