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Acute Coronary Syndromes

THREE-YEAR FOLLOW-UP OF PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION WHO RECEIVED ENDOTHELIAL PROGENITOR CELL CAPTURE STENT WHILE UNDERGOING PRIMARY PERCUTANEOUS CORONARY INTERVENTION

ACC Moderated Poster Contributions

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Session Title: Acute Coronary Syndromes: Clinical II

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Background: The safety and efficacy of endothelial progenitor cell (EPC) capture stent implantation during primary percutaneous coronary intervention (PCI) for patients presenting with ST-elevation myocardial infarction at short- and medium-term have been previously reported. We report the long-term 3 year outcomes of this treatment strategy.

Methods: We prospectively followed up patients who underwent primary PCI using EPC capture stent at our center between August 2004 and December 2007. The study endpoints were major adverse cardiac events (MACE), which include death, myocardial infarction (MI), target vessel revascularization (TVR) and stent thrombosis (ST) at 1 to 3 year.

Results: A total of 384 patients who received 465 EPC capture stents (1.2stents/pt) were analysed. The cohort comprised 85.1% males with a mean age of 55.5±11.4 years. Among them, 33.1% had diabetes and 7.2% had cardiogenic shock. The mean stent length was 21.04±5.6mm and the mean stent diameter was 3.0±0.3mm. Dual antiplatelet therapy was for a month's duration. The cumulative MACE rate at 3 years was as follows:

	1 Yr	2 Yr	3Yr
Death	25 (6.5%)	26 (6.8%)	27 (7.1%)
MI	14 (3.6%)	16 (4.2%)	18 (4.6%)
TVR	28 (7.2%)	35 (9.1%)	39 (10.2%)
Stent thrombosis	5 (1.3%)	5 (1.3%)	5 (1.3%)
MACE	61(15.9%)	70 (18.2%)	77 (20.1%)

After excluding patients with cardiogenic shock, the MACE rate was 12.2% at 1 year and 15.5% at 3 year (1.65% per year between 1 and 3 year). No incidence of very late stent thrombosis was reported.

Conclusion: The use of EPC capture stent during primary PCI for patients with STEMI is feasible and safe, with acceptable long term MACE rates and no incidence of very late stent thrombosis.