

Long-term (>3 Years) Clinical Outcomes of Sirolimus-Eluting Stents for Patients with ST-Segment Elevation Myocardial Infarction

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BACKGROUND: Implanting Sirolimus-eluting stents (SES) in patients with ST-Segment Elevation Myocardial Infarction (STEMI) is controversial because of a potential high risk of stent thrombosis (ST). Long-term clinical outcomes (>3 years) of SES for STEMI remains unclear in Japan.

OBJECTIVE: The aim of this study was to evaluate long-term (>3 years) clinical outcomes of SES for STEMI.

METHODS: Between August 2004 and August 2006, 85 STEMI patients were treated with SES in our hospital. In-hospital major adverse cardiac events (MACE) and overall clinical follow-up of MACE were analyzed. MACE included all-cause death, myocardial infarction (MI), and target lesion/vessel revascularization (TLR/TVR).

RESULT: Final clinical follow-up rate was 95% (81/85, mean follow-up period was 46±7 months). The result of in-hospital MACE included 3 cardiac death cases (2 cardiopulmonary arrest on arrival, 1 severe mitral regurgitation), 0 TLR, and 3 TVR cases. Among discharged 82 patients, we had additional 2 cardiac death cases (1 ventricular fibrillation, 1 unknown), 4 non-cardiac death cases (2 lung cancer, 1 pneumonia, 1 suicide), and 0 MI case during overall clinical follow-up. TLR was 4.8% (4/82) and TVR was 4.8% (4/82). MACE-free rate was 85% and death-free rate was 91% at 36 month. No definite ST was observed.

CONCLUSION: The use of SES for STEMI seems to be feasible with long-term safety and acceptable low rates of MACE. Definite ST was not observed in this study.