Two-Year Outcomes Following Platinum Chromium Everolimus-Eluting Stent Implantation in Small Vessel Lesions in Japan

Shigeru Saito,1 Masashi Iwabuchi,2 Teshiya Muramatsu,3 Atsuo Namishi,4 Toshiyuki Matsumura,5 Keiichi Igarashi,6 Junji Yajima,7 Shigeru Nakamura,4 Dominic J. Allocco,8 Keith D. Dawkins10

1Shonan Kamakura General Hospital, Kamakura, Japan 2Kohoku Memorial Hospital, Kitaohu, Fukuoka, Japan 3Saiseikai Yokohama-City Eastern Hospital, Yokohama City, Kanagawa, Japan 4Japan Labour Health and Welfare Organization Kanto Rosai Hospital, Kawasaki, Kanagawa, Japan 5Japan Labour Health and Welfare Organization Kumamoto Rosai Hospital, Yatsushiro, Kumamoto, Japan 6Hokkaido Social Insurance Hospital, Sapporo, Hokkaido, Japan 7The Cardiovascular Institute Hospital, Minato, Tokyo, Japan 8Koto-Katsura Hospital, Koto, Japan 9Boston Scientific Corporation, Maple Grove, MN 10Boston Scientific Corporation, Marlborough, MA

Background: Small vessel diameter is associated with increased restenosis rates and adverse outcomes following coronary stenting. The PLATINUM Japan Small Vessel multicenter study specifically assessed small vessel stenting in Japanese patients treated with the PROMUS Element everolimus-eluting stent (Boston Scientific, Natick, MA). Follow-up beyond 1 year has not been reported previously.

Methods: Patients with a single de novo target lesion ≤28 mm long and ≥2.5 to ≤2.80 mm in diameter were eligible for treatment with a 2.25 mm diameter PROMUS Element stent.

Results: A total of 60 patients were enrolled at 14 clinical sites; 32 patients were randomized to receive routine angiography following the 1-year clinical follow-up (angiography was completed in 29 patients). Patients were 69±9.8 years of age, 68.3% male, and 36.7% had medically treated diabetes. Average baseline reference vessel diameter was 2.02±0.26 mm. Technical success and procedural success were both 100% (60/60). Post-dilation was used in 70.0% with a 16.6 atm average pressure. Dual antiplatelet treatment was used in 78.3% of patients at 2 years post-procedure. Two-year clinical follow-up is complete in 100% of patients. Through 365 days post-procedure, there were no major adverse cardiac events. In-stent late loss was 0.18±0.30 mm in the angiographic subset. Following angiographic assessments (366-396 days post-procedure), target lesion revascularization (TLR) occurred in 2 patients (including 1 patient in the angiographic subset); there were no additional TLRs through the 2-year follow-up. Target vessel revascularization outside the target lesion occurred in 3 patients through the 2-year follow-up. One patient (1.7%) experienced a non-Q-wave myocardial infarction (MI) in the target vessel 413 days post-procedure. There were no Q-wave MIs or stent thromboses through 2 years.

Conclusion: The results support the safety and efficacy of the PROMUS Element 2.25 mm stent in Japanese patients.
syndrome (ACS), 25 patients (41%) had triple vessel CAD. Sixty percent were classified as having ACC/AHA B-2 or type coronary arteries including bailout stenting post PCI required in 8 patients.

Immediate result mean diameter stenosis was 80±8 decrease to 5±9 post DEB dilatation and the diameter stenosis reached 15±20 with coronary angiography follow up to 6 to 12 months. 7 patients (11%) have restenosis (5 patients have PCI and 2 patients have CABG), 37 patients (59%) who were followed by either re-cath (17 patients) or SPECT Scan (20 patients) showed no evidence of restenosis. The remaining 17 patients (30%) were followed clinically and showed no Angina. One patient died from cancer one month after PCI. Two patients failed because of inability to cross the lesion. There was no cerebrovascular accident and no major bleeding.

**Conclusion:** Be Brown Paclitaxel-coated balloon (DEB) can be used safely with good and successful intermediate result with target vessel restenosis of 7 patients (11.3) % and non cardiac mortality of 1.6%.

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**CRT-51**

**Stenting of Unprotected Left Main Stem Using the Zotarolimus-coated Endeavor™ Stent: A Single Center Registry**

Klaus Herthung, Angelika Lorenz, Daniel Hausmann, Claudia Zeiler, Werner Raut Buchholz Hospital, Buchholz, Germany

**Background:** The aim of this registry is to demonstrate whether the implantation of a Zotarolimus-eluting (ZES) Endeavor™ stent (Medtronic Corp., USA) into an unprotected left main stem is both safe and efficiently feasible in the long term, in an unsedected patient population with significant co-morbidities.

**Methods:** Between February 2006 and February 2010, all patients of our department (no on-site cardiac surgery, 24 hours on-call service) who underwent stenting of an unprotected left main stem received an Endeavor™-Stent. Treatment of concomitant lesions was left to the investigators discretion. All patients were included into a registry containing both clinical and interventional data. During follow-up patients were contacted with a written questionnaire. If necessary, the information was supplemented by telephone contact with the patients or their treating physicians. Primary endpoints included death, myocardial infarction (MI) or repeated target lesion revascularization (TLR) and the combination of events (MACE).

**Results:** A total of 58 patients were included (42 men, 16 women, median age 72.3 years). 24% of all the patients had diabetes mellitus. In 53% of the patients, the intervention took place due to angina or proven stress ischemia, in 34% due to a MI within 72 hours, in 12% due to a myocardial infarction more than 72 hours before. Twelve percent had a severely reduced left ventricular ejection fraction (<30%), and 4 patients (7%) were in cardiogenic shock. The mean logistic EuroScore was 4.4%; the SYNTAX Score 22.0. Seventy-four percent of the lesions were bifurcation lesions. In 53% of cases there was no intervention of other lesions in the index procedure, in 23% only with Endeavor™ stents, in 16% only with bare metal stents (BMS), in 10% both with Endeavor™ stents and BMS. The median follow-up time was 34.7 months. After 12, 24 and 36 months, total mortality was 14, 17 and 22%; cardiac mortality was 2, 4 and 9%; the TLR rate was 6, 6 and 8% and the MACE rate was 21, 24, 30 and 33%. Seventy-one percent of all patients had dual antiplatelet therapy up to 6 months after the procedure. Confirmed stent thrombosis occurred in only one case during the follow-up period.

**Conclusions:** As our registry represents all-comers data, the long-term results concerning the safety and efficiency of the Endeavor™ stent in the unprotected main stem of the left coronary artery appeared acceptable.

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**CRT-49**

**Predictors of In-hospital Outcome after Primary PCI of Left Main Coronary Artery Acute Myocardial Infarction with Cardiogenic Shock**

Koushi Matsuo, Yasunori Ueda
Osaka Police Hospital, Osaka, Japan

**Background:** In patients with acute myocardial infarction (AMI) and cardiogenic shock, emergency revascularization improves long-term survival. However, predictors of in-hospital outcome after primary PCI of left main coronary artery (LMCA) AMI remain unclear.

**Methods:** Consecutive 19 patients admitted to our hospital presenting Killip IV heart failure and occluded LMCA on emergent coronary angiography were enrolled. We performed primary PCI of LMCA.

**Results:** Successful reperfusion was achieved in 19 (100%) patients; IABP was used in 19 (100%) but PCPS in 6 (32%) patients; and 13 (68%) patients survived but 6 (32%) patients died in hospital. Prevalence of diabetes mellitus (83% vs. 23%; p<0.05), elapsed time (5.8±2.6 vs. 2.8±1.0 hours; p<0.05), and peak CK (15272 ±30263 vs. 6608±3612 U/l; p<0.05) were larger in patients who died than in those who survived.

**Conclusions:** Short elapsed time, small infarct size, and non-diabetic patients were associated with good in-hospital outcome. Therefore, sooner primary PCI of LMCA should be an effective therapeutic strategy for LMCA AMI presenting cardiogenic shock.

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**CRT-50**

**Impact Of Vascular Access Route In Left Main Stem (LMS) Intervention**

Ashish Shah, Tim Kinnaird, Ashesh N Buch, Nick Osei-Gerning, Richard Anderson University Hospital of Wales, Cardiff. United Kingdom

**Background:** Percutaneous coronary intervention (PCI) using radial arterial access is challenging and requires steep learning curve, but it is associated with significantly reduced morbidity and mortality, mainly due to reduced procedures related bleeding complications. PCI for left main stem (LMS) coronary artery disease is increasing over period of time.

**Methods:** We analyzed catheter laboratory data from University Hospital of Wales, Cardiff, UK from 2006 to 2010, assessing number of patients undergoing PCI to LMS with or without other vessel coronary intervention using different arterial access (radial vs. femoral arterial route) and procedure outcome.

**Results:** A total of 4972 PCIs were performed, of which 177 patients underwent PCI to LMS. Radial access was used in 109 patients, whereas femoral access was used in 68 patients. Their subject characteristics were similar. Patients with previous history of CABG required using left radial access.

During the procedures through radial or femoral access number of vessels (1.9 ±0.1 vs. 2.2 ±0.2) or lesions (2.4 ±0.2 vs. 2.5 ±0.1) intervened, as well as number of stents (1.9 ±0.2 vs. 2.3 ±0.2) used through both accesses were similar. There was no significant difference in procedure time, amount of contrast or radiation use in these groups. We used 7F system through radial access in 18 of our patients (6F system in rest of the patients). Immediate (in hospital) procedure related complications were low using radial vs. femoral access (coronary dissection: 2.8 vs. 3.2%; bleeding: 0.9 vs. 7.8% and shock 2.8 vs. 4.7%). Only 2 patients (1.8%) required changing of the vascular access from radial to femoral due to difficult vascular anatomy.

Proportion of patients undergoing PCI to LMS using radial access (than femoral access) has significantly increased over last 5 years in our institute.