Conclusions: Sub-optimal TIMI flow is of greater prognostic value in DP compared to N-DF, stressing the importance of optimal reperfusion after primary PCI for STEMI in DM.

TCT-345
Effect of Body Mass Index and Diabetes Mellitus on Angiographic Outcomes in Patients Undergoing Primary Percutaneous Coronary Intervention Using Different Drug-eluting Stents
Seiji Habara1, Kazushige Kadota1, Tahei Ichinohe1, Shunsuke Kubo1, Masatomo Oyaki1, Yasuke Hyodo1, Koshi Miyake1, Naoki Saito1, Suguru Otsubo1, Hideaki Otsuki1, Daji Hasagawa1, Yoshihisa Shigemoto1, Takeshi Tada1, Hiroaki Tanaka1, Yasushi Fuku1, Tsuyoshi Goto1, Kazuaki Mitsudo1
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Background: The purpose of this study was to assess the impact of body mass index (BMI) and diabetes mellitus (DM) on angiographic outcomes in patients treated with different drug-eluting stents.

Methods: From November 2002 to March 2011, 8567 de novo coronary lesions were treated with drug-eluting stent. Dialysis patients were excluded. Of 8567 lesions, 1934 lesions were treated with everolimus-eluting stent (EES), 1215 with paclitaxel-eluting stent (PES), and 5418 with sirolimus-eluting stent (SES). Angiographic follow-up was routinely performed at 8 months after successful procedure. The follow-up rate was 81%. The patients were classified as underweight (BMI < 20), normal weight (BMI ≥ 20 and < 25), and overweight (BMI ≥ 25). The patients were divided into three groups according to implanted stent type: EES, PES, and SES. Of all patients, 42% were with DM, of whom 11% were insulin-dependent. The rates of DM and insulin treatment were similar in all groups. Angiographic outcomes were compared between each group.

Results: Independent predictors of binary restenosis differed in each group. In the SES group, they were BMI (depression of 5 kg/m2), DM, and stent size 2.5 mm. In the EES group, they were CTO, stent size 2.5 mm, and lesion length ≥ 20 mm. The figure shows odds ratio of BMI (depression of 5 kg/m2) and DM between each group.

Predictors of Binary Restenosis

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<th>BMI (depression of 5 kg/m²)</th>
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<tr>
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<table>
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</table>

Conclusions: BMI and DM affect angiographic outcomes in patients treated with SES and PES but not those in patients treated with EES.

TCT-346
Clinical Impact of Five-month Follow-up Glycosylated Hemoglobin on Cardiovascular Outcomes in Diabetic Patients with ST-Segment Elevation Myocardial Infarction Undergoing Primary Percutaneous Coronary Intervention
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Background: Diabetes mellitus is known as a strong predictive factor of adverse cardiovascular event after ST-segment elevation myocardial infarction (STEMI). Recently, glycosylated hemoglobin (HbA1c) reflecting serum glucose control within 8 to 12 weeks, is studied to investigate relationship with major adverse cardiac events (MACE) after acute myocardial infarction. This study is conducted to determine the association between follow-up HbA1c and MACE in diabetic patients with STEMI undergoing primary percutaneous coronary intervention (PCI).

Methods: Using data from Korea Working Group on Myocardial Infarction, 303 diabetic patients with STEMI undergoing primary PCI were enrolled. Patients were divided into three groups based on follow-up HbA1c (FU-HbA1c): optimal, FU-HbA1c > 7%; suboptimal, 7% ≤ FU-HbA1c < 9%; poor controlled group, 9% ≤ FU-HbA1c. We analyzed 12-month cumulative MACE, defined as a composite of mortality, nonfatal myocardial infarction, re-PCI or coronary artery bypass graft in each group. Also, we investigated the value of FU-HbA1c to predict MACE using multivariate logistic regression analysis.

Results: The mean duration of FU-HbA1c and clinical event follow-up was 5 and 12 months, respectively. The incidence rate of 12-month cumulative MACE were significantly different in each group: 7.3% vs. 13.0% vs 23.9%, respectively (p < 0.005), which was related due to increased repeated PCI. In multivariate logistic analysis, the factor of FU-HbA1c more than 9.0% was shown to be independently associated with 12-month cumulative MACE, and compared with FU-HbA1c > 7.0%: OR 7.0%: OR 11.437, 95% confidence interval 1.709-76.522, p = 0.012.

Conclusions: This study suggests that FU-HbA1c in early phase was associated with higher incidence of 12-month cumulative MACE, mainly contributing to increased repeated PCI in diabetic patients with STEMI undergoing primary PCI. And more than 9% of FU-HbA1c was identified to be an independent predictor of adverse outcome. These imply continuous tight monitoring of serum glucose in early phase after myocardial ischemic insult is important to reduce the possibility of repeated PCI following restenosis, but more research is needed to understand these findings with long-term clinical data.

TCT-347
Clinical Outcome Of Biolimus-Eluting Versus Sirolimus-Eluting Coronary Stent Implantation In Patients With And Without Diabetes Mellitus: A SORT OUT V Substudy
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Background: Diabetes is associated with an increased risk of major adverse cardiac events (MACE) following percutaneous coronary intervention.

Methods: We compared clinical outcomes in patients with and without diabetes mellitus treated with the third-generation biolimus-eluting Nobori stent (BES) and the first-generation sirolimus-eluting Cypher highlights Select + stent (SES) in the SORT OUT V trial. We randomized 2,468 patients to treatment with BES (n = 1,229, diabetes: n = 185) or SES (n = 1,239, diabetics: n = 189) and followed them for 12 months. Randomization was stratified by presence/absence of diabetes. The primary endpoint was MACE, defined as a composite of cardiac death, myocardial infarction (MI), or target vessel revascularization (TVR). Secondary endpoints were each of these individual endpoints plus all-cause mortality, target lesion revascularization (TLR), and definite stent thrombosis.

Results: In diabetic patients, use of BES compared with SES was neither associated with an increased risk of MACE (6.6% vs. 8.0%; hazard ratio (HR) = 0.83, 95% confidence interval (CI): 0.39-1.77), MI (1.6% vs. 1.6%, HR = 1.02, 95% CI: 0.21-9.08), TVR (5.9% vs. 4.8%; HR = 1.27, 95% CI: 0.52-3.05), nor TLR (5.4% vs. 3.2%; HR = 1.72, 95% CI: 0.63-4.74). Similarly, patients without diabetes, MACE (5.1% vs. 3.7%; hazard ratio (HR) = 1.38, 95% CI: 0.91-2.08), MI (1.4% vs. 0.8%, HR = 1.89, 95% CI: 0.80-4.47), TVR (3.8% vs. 2.8%; HR = 1.40, 95% CI: 0.87-2.25), and TLR (2.8% vs. 1.8%; HR = 1.55, 95% CI: 0.87-2.76) showed no differences between the two stents. With regard to definite stent thrombosis, BES was neither associated with fewer events in patients with diabetes (2.2% vs. 1.2%; HR = 2.05, 95% CI: 0.38-11.2) nor in patients without diabetes (0.6% vs. 0.2%; HR = 3.03, 95% CI: 0.61-15.0).

Conclusions: BMI and DM affect angiographic outcomes in patients treated with SES and PES but not those in patients treated with EES.
Conclusions: Coronary implantation of BES or SES is associated with similar event rates at 12-month follow-up in patients with, and without, diabetes.

TCT-348
The Effect of Drug-Eluting Stents on Clinical and Angiographic Outcomes in Diabetic Patients, 3 Years Result: Multicenter Registry in Asia
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1New Tokyo Hospital, Chiba, Japan, 2Kumamoto University Hospital, Kumamoto, Japan, 3Konyang University Hospital, Daejeon, Korea, Republic of, 4Husada Hospital, Jakarta, Indonesia, 5King Chulalongkorn Memorial Hospital, Bangkok, Thailand, 6Faculty of Medicine Siriraj Hospital, Bangkok, Thailand, 7Chest Disease Institute, Nonthaburi, Thailand

Background: The aim of this study is to compare the safety and efficacy of Sirolimus (SES), Paclitaxel (PES), EPC capture (ECS), Zotarolimus (ZES-R/ Endeavor Resolve), BiolimusA9 (BES) and Everolimus-eluting stent (EES) on the outcome of percutaneous coronary intervention in patients with diabetes mellitus (DM).

Methods: A prospective analysis of 2972 patients with DM (808 SES, 720 PES, 299 ECS, 404 ZES-R, 320 BES, 421 EES) in six high volume Asian centers after successful stenting was performed. The study endpoints were 30 days major adverse cardiac events (MACE) and 12, 24 and 36 months target lesion revascularization (TLR) and MACE.

Results: See table for clinical results.

Conclusions: The use of drug-eluting stents in patient with DM was safe with low acute complication. Patients treated with BES and EES showed lesser rate of restenosis compared with ECS.

TCT-349
Drug-Eluting Stents for the Treatment of Very Long Coronary Artery Stenosis with Diabetes Mellitus: A Comparison with Sirolimus, Paclitaxel, Zotarolimus (Endeavor Resolute), BiolimusA9, EPC Capture and Everolimus-Eluting Stent: Multicenter Registry in Asia
Sunao Nakamura1, Shotoro Nakamura1, Hisao Ogawa2, Jang-Ho Bae3, Yeo Culyadi4, Wasan Udayachalerm5, Damras Treskoskol6, Sudaratana Tansuphaswadikal7
1New Tokyo Hospital, Chiba, Japan, 2Kumamoto University Hospital, Kumamoto, Japan, 3Konyang University Hospital, Daejeon, Korea, Republic of, 4Husada Hospital, Jakarta, Indonesia, 5King Chulalongkorn Memorial Hospital, Bangkok, Thailand, 6Faculty of Medicine Siriraj Hospital, Bangkok, Thailand, 7Chest Disease Institute, Nonthaburi, Thailand

Background: The aim of this study is to compare the safety and efficacy of Sirolimus (SES), Paclitaxel (PES), Zotarolimus (ZES-R/ Endeavor Resolve), BiolimusA9 (BES), EPC capture (ECS) and Everolimus-eluting stent (EES) on the outcome of stenting in patients with diabetic very long coronary lesion (VLL) (lesion length ≥40 mm).

Methods: A prospective analysis of 1317 patients with diabetic VLL (328 SES, 280 PES, 189 ZES-R, 190 BES, 143 ECS, 187 EES) was performed. The study endpoints were major adverse cardiac events (MACE) at 12 months, restenosis rate and target lesion revascularization (TLR) at 12 months.

Results: See table for clinical results.

Conclusions: (1) The use of drug-eluting stents in patients with diabetic VLL seems to be favorable in terms of in-hospital clinical outcome and long-term results. (2) Patients treated with BES and EES showed lesser restenosis rate and TLR compared with PES and ECS.

TCT-350
Drug-Eluting Stents for the Treatment of Very Long Coronary Artery Stenosis with Diabetes Mellitus: A Comparison with Sirolimus, Paclitaxel, Zotarolimus (Endeavor Resolute), BiolimusA9, EPC Capture and Everolimus-Eluting Stent: Multicenter Registry in Asia