cerebrovascular and cardiac events (MACCE) at 5 years, defined as a composite of death, myocardial infarction (MI), ischemic stroke, and repeat revascularization (RR).

**RESULTS** After multivariable adjustment, there were trends of increased 5-year risk of MACCE in the DM patients (Hazard ratio [HR] 1.128, 95% confidence interval [CI] 0.989-1.286 p=0.072), mainly driven by increased risk of hard outcomes (HR 1.445, 95% CI 1.164-1.793, p=0.001 for death; HR 1.289, 95% CI 1.067-1.558, p=0.008 for composite of death, MI, and stroke). However, the risk of repeat revascularization was comparable between DM and non-DM patients (HR 1.021, 95% CI 0.861-1.211, p=0.808), despite of unfavorable procedural characteristics, including lesser complete revascularization (36.5% vs. 39.0%, p=0.082) and longer total stent length (62.9±34.4mm vs. 60.0±33.1mm, p=0.001). The risk of target lesion revascularization (HR 1.146, 95% CI 0.913-1.440, p=0.241) was also not significantly different between two groups.

**CONCLUSIONS** Although risk of hard outcomes after PCI were still higher in the DM patients, the risk of revascularization was comparable between DM and non-DM patients in the era of DES.

**CATeGORIES CORONARY:** Diabetes

**KEYWORDS** Diabetes, Multivessel disease, Percutaneous coronary intervention

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**TCT-590**

**Everolimus- versus Zotarolimus-Eluting Stents for Treatment of Unprotected Left Main Coronary Artery Lesions (from an IRIS-MAIN Registry Substudy)**

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**BACKGROUND** It remains unclear whether there are differences in the safety and efficacy outcomes between everolimus-eluting stent (EES) and zotarolimus-eluting stent (ZES) for treatment of unprotected left main coronary artery stenosis.

**METHODS** From the IRIS MAIN Registry (total 4253 patients), we identified 1402 consecutive patients who received EES (982 patients) and ZES (420 patients). We compared major adverse cardiovascular events (MACE) which was defined as a composite measure consisting of death, nonfatal myocardial infarction, or target vessel revascularization (TVR).

**RESULTS** Mean age was 64.2±10.4 years and 65.0±10.6 years in the EES and ZES groups, respectively (p=0.22). Male made up 76.4% and 79.8% (p=0.17). There was no difference in the prevalence of diabetes between the two groups (p=0.64). 2 year follow-up was completed in 40.9% of the EES group and 71.9% of the ZES group (p<0.001). At the 2-years of clinical follow-up, the EES and ZES groups did not differ significantly in the risk of MACE (10.9% for EES vs 6.4% for ZES; hazard ratio [HR], 1.36; 95% confidence interval [CI], 0.90-2.06, p=0.14) with no difference in the individual component of MACE - death (HR, 1.72; 95% CI, 0.72-4.12, p=0.22), MI (HR, 2.10; 95% CI, 0.47-9.34, p=0.33), and TVR (HR, 1.21; 95% CI, 0.74-1.99, p=0.44). The risk of cerebrovascular event (HR, 2.19; 95% CI, 0.49-9.78, p=0.291) and definite stent thrombosis (HR, 0.004; 95% CI, 0.000-564.85, p=0.36) were also similar between the two groups. The risk of MACE between the two groups remained similar after adjusting for the difference in baseline characteristics, using the multivariate Cox’s proportional hazard model.

**Table. 2-year clinical outcomes following the use of EES versus ZES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>EES (n=982)</th>
<th>ZES (n=420)</th>
<th>HR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACE, n (%)</td>
<td>107 (10.9)</td>
<td>27 (6.4)</td>
<td>1.30 (0.85-1.99)</td>
<td>0.22</td>
</tr>
<tr>
<td>Death, n (%)</td>
<td>33 (3.4)</td>
<td>6 (1.4)</td>
<td>1.72 (0.72-4.12)</td>
<td>0.22</td>
</tr>
<tr>
<td>Cardiac death, n (%)</td>
<td>28 (2.9)</td>
<td>2 (0.5)</td>
<td>4.25 (1.03-16.35)</td>
<td>0.045</td>
</tr>
<tr>
<td>Non-cardiac death, n (%)</td>
<td>5 (0.5)</td>
<td>4 (0.9)</td>
<td>0.49 (0.11-1.95)</td>
<td>0.37</td>
</tr>
<tr>
<td>Myocardial infarction, n (%)</td>
<td>13 (1.3)</td>
<td>2 (0.4)</td>
<td>2.10 (0.47-9.34)</td>
<td>0.33</td>
</tr>
<tr>
<td>Target vessel revascularization, n (%)</td>
<td>74 (7.5)</td>
<td>20 (4.8)</td>
<td>1.21 (0.74-1.99)</td>
<td>0.44</td>
</tr>
<tr>
<td>Stent thrombosis, n (%)</td>
<td>0 (0)</td>
<td>3 (0.7)</td>
<td>0.004 (0.000-564.85)</td>
<td>0.36</td>
</tr>
<tr>
<td>Cerebrovascular event, n (%)</td>
<td>13 (1.3)</td>
<td>2 (0.5)</td>
<td>2.19 (0.49-9.78)</td>
<td>0.29</td>
</tr>
</tbody>
</table>

EES, everolimus-eluting stent; HR, hazard ratio; MACE, major adverse cardiac or cerebrovascular event; MACE, major adverse cardiovascular event; ZES, zotarolimus-eluting stent
CONCLUSIONS The use of EES and ZES for treatment of unprotected left main coronary artery lesions showed similar outcomes with regard to death, MI, and TVR.

CATEGORIES CORONARY: Angioplasty Overview and Outcomes

KEYWORDS Drug-eluting stent, everolimus, Drug-eluting stent, zotarolimus, Left main coronary artery disease

TCT-591

Comparison of Zotarolimus-Eluting and Everolimus-Eluting stents in patients with multi-vessel coronary artery disease

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BACKGROUND This study sought to compare the clinical performances of zotarolimus-eluting stents (ZES) and everolimus-eluting stents (EES) for multi-vessel coronary artery disease.

METHODS From August 2006 to December 2013, a total of 1989 consecutive patients with multi-vessel coronary artery disease underwent percutaneous coronary intervention (PCI) with ZES (N = 1,106) or EES (N = 973) implantation in Asan Medical Center. Primary outcome was defined as the composite of death, myocardial infarction, or target vessel revascularization (MACE: major adverse cardiovascular event) at 3 years.

RESULTS The adjusted-risk of MACE (hazard ratio [HR], 0.88; 95% confidence interval [CI] 0.66–1.16, P = 0.36) did not differ between patients who received ZES and EES implantation at 3 years. The adjusted risk of death (HR, 0.78; 95% CI, 0.54–1.15, P = 0.21), the composite of death or myocardial infarction (HR, 0.79; 95% CI, 0.55–1.12, P = 0.18), and target vessel revascularization (HR, 0.78; 95% CI, 0.59–1.02, P = 0.079) were also similar between ZES and EES group. The 3-year cumulative incidence of definite or probable stent thrombosis was 0.5% and 0.4% in ZES and EES group, respectively.

CONCLUSIONS The clinical performance of ZES and EES were not significantly different for patients with multi-vessel coronary artery disease.

CATEGORIES CORONARY: Stents: Drug-Eluting

KEYWORDS Drug-eluting stent, sirolimus, In-stent restenosis, In-stent restenosis

TCT-592

Ten-year Clinical Outcomes After The First Sirolimus-eluting Stent Implantation: Impact of In-stent Restenosis Lesion

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BACKGROUND Little is known about the clinical follow-up after sirolimus-eluting stent (SES) implantation and about the effect of SES implantation in in-stent restenosis (ISR) lesion more than five years. We aimed to compare clinical outcomes up to 10 years after SES implantation in de novo lesion and ISR lesion.

METHODS A series of 392 patients underwent the first SES implantation between November 2002 and December 2004, whose clinical outcomes were investigated. There were 253 patients for de novo lesion and 139 patients for ISR lesion. We evaluated the outcomes after SES implantation and clinical information was obtained either from a review of the hospital records or by telephone interviews with the patients, family members, or primary care physicians.

RESULTS Mean follow-up period was 10.0 years. Cumulative incidence of major cardiac events (MACE) and target-lesion revascularization in ISR group were significantly higher than that in de novo group through 10 years (56.1% vs. 38.7%; p = 0.01, and 41.3% vs. 20.6%; p = 0.004, respectively) and the difference of the MACE and TLR rate in two groups increased in this period. Cumulative incidence of myocardial infarction (MI) and stent thrombosis (ST) between two groups were not significantly different (13.0% vs. 7.9%; p = 0.1, and 5.0% vs. 2.4%; p = 0.15, respectively).

CONCLUSIONS The incidence of MACE and TLR after the SES implantation in ISR lesion was significantly higher than that in de novo lesion and the difference of the TLR rate between in two lesions became more clear through 10 years, although the incidence of MI and ST had no significant difference in 2 groups.