**CONCLUSIONS**
The use of 2nd generation DES was associated with similar efficacy profile and improvement in safety performance, with a marked reduction in MI occurrence.

**CATEGORIES CORONARY:** PCI Outcomes

**KEYWORDS**
First-generation drug-eluting stent, New-generation drug eluting stents, Registry

**TCT-469**
Differential effect of Side Branch Intervention on Long-term Clinical Outcomes According to Side Branch Stenosis after Main Vessel Stenting: Results from the COBIS (Coronary Bifurcation Stenting) II Registry

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**BACKGROUND**
Indication of side branch (SB) intervention after main vessel (MV) stenting is not established in coronary bifurcation lesions.

**METHODS**
In the Coronary Bifurcation Stenting II Registry, 2,897 patients undergoing percutaneous coronary intervention using drug-eluting stents for bifurcation lesions with SB ≥2.3 mm were enrolled. We selected 2,017 patients treated with 1-stent technique or MV stenting first strategy. Patients undergoing SB intervention after MV stenting (SB intervention group, n=929) were compared to those not after MV stenting (no-SB intervention group, n=1,088) in terms of cardiac death or myocardial infarction (MI).

**RESULTS**
During a median follow-up duration of 37 months, the cumulative rate of cardiac death or MI tended to occur less frequently in the SB intervention group than in the no-SB intervention group (1.8% versus 2.9%; adjusted hazard ratio [HR] 0.56; 95% confidence interval [CI] 0.29 to 1.07; p=0.08). There was significant interaction between SB intervention and SB stenosis after MV stenting (p for interaction <0.01). Of 1,077 patients with diameter stenosis of SB ≥50% after MV stenting, SB intervention was associated with a lower risk of cardiac death or MI (1.2% versus 4.2%; adjusted HR 0.22; 95% CI 0.09 to 0.52; p<0.01). However, among 940 patients with diameter stenosis of SB <50%, there was no significant difference in cardiac death or MI (3.5% versus 2.2%; adjusted HR 1.36; 95% CI 0.58 to 3.20; p=0.48) between the two groups.

**Table 5. Clinical Outcomes according to residual SB stenosis after MV stenting.**

<table>
<thead>
<tr>
<th>SB intervention</th>
<th>No SB intervention</th>
<th>Unadjusted HR</th>
<th>Adjusted HR</th>
<th>p value</th>
<th>Adjusted HR</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with DS of SB ≥50% after MV stenting (n=1,077)</td>
<td></td>
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</tr>
<tr>
<td>Cardiac death or MI</td>
<td>8 (0.3)</td>
<td>17 (4.2)</td>
<td>0.24 (0.11-0.57)</td>
<td>0.001</td>
<td>0.22 (0.09-0.52)</td>
<td>0.001</td>
</tr>
<tr>
<td>TLR</td>
<td>53 (7.9)</td>
<td>26 (6.4)</td>
<td>1.07 (0.67-1.71)</td>
<td>0.784</td>
<td>1.04 (0.64-1.68)</td>
<td>0.880</td>
</tr>
</tbody>
</table>

| Patients with DS of SB <50% after MV stenting (n=940) | | | | | | |
| Cardiac death or MI | 9 (1.5) | 15 (2.2) | 1.50 (0.66-3.43) | 0.338 | 1.36 (0.58-3.20) | 0.475 |
| TLR | 12 (2.6) | 35 (5.1) | 0.85 (0.44-1.65) | 0.620 | 0.80 (0.41-1.56) | 0.610 |

CI = confidence interval, DS = diameter stenosis, HR = hazard ratio, MI = myocardial infarction; MV = main vessel; SB = side branch; TLR = target lesion revascularization. Adjusted covariates included bifurcation location, true bifurcation and MV lesion length before procedure. Adjusted covariates included history of previous PCI, acute coronary syndrome, and true bifurcation.

**CONCLUSIONS**
Effect of SB intervention seems to differ according to SB stenosis after MV stenting. SB intervention may reduce cardiac death or MI in bifurcation lesions with diameter stenosis of SB ≥50% after MV stenting.

**CATEGORIES CORONARY:** PCI Outcomes

**KEYWORDS**
Bifurcation lesion, Percutaneous coronary intervention, Side branch occlusion

**TCT-470**
Routine Follow Up Coronary Angiography versus Clinical Follow Up Only in Patients with Multi-vessel Disease following Percutaneous Coronary Intervention with Drug-eluting Stents: 3-year Clinical Follow Up Results

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**BACKGROUND**
It is unclear whether the routine follow-up (FU) coronary angiography (CAG) regardless of patient’s symptoms after successful percutaneous coronary intervention (PCI) with drug-eluting stents (DESs) in patients (pts) with multi-vessel disease (MVD) is beneficial or not.

**METHODS**
The study population consisted of 642 consecutive MVD pts underwent PCI with unrestricted utilization of DESs from January 2004 to May 2011. Routine FU CAG was performed between 6 to 9 months following index PCI and was decided by individual physician’s discretion. Rests of the pts were clinically followed and ischemic driven events were captured. Clinical events including mortality, myocardial infarction and clinically driven PCI before 6 months were excluded in both groups. Cumulative clinical outcomes up to 3 years were compared between the Routine CAG group (n=374 pts) and the Clinical FU group (n=268 pts). To adjust potential confounders, a propensity score matched (PSM) analysis was performed using the logistic regression model.

**RESULTS**
After PSM analysis, 2 propensity-matched groups (193 pairs, n = 386 pts, C-statistic=0.744) were generated and the baseline characteristics of the two groups were balanced. At 3 years, the incidence of target lesion revascularization (TLR) and target vessel revascularization (TVR) and major adverse cardiac events (MACEs) was higher in the Routine CAG group than the control group (Table).

**CONCLUSIONS**
Despite the expected beneficial effects, routine FU CAG following index PCI with DESs in MVD pts was associated with higher incidence of repeat PCI including TLR and TVR and MACE up to 3 years.

**CATEGORIES CORONARY:** PCI Outcomes

**KEYWORDS**
Clinical outcomes, Multivessel disease, PCI - Percutaneous Coronary Intervention

**TCT-471**
Utility of the ACC/AHA Lesion Classification in the Modern Era of Percutaneous Coronary Intervention

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**BACKGROUND**
ACC/AHA coronary lesion classification was developed in 1988 as a method of predicting procedural success and complications in the angioplasty era. Correlation with short- and medium-term outcomes during the contemporary percutaneous coronary intervention (PCI) era is not well established. We aimed to