IMPACT OF CORONARY BIFURCATION ANGLE ON CLINICAL OUTCOMES AFTER PERCUTANEOUS
CORONARY INTERVENTION IN REAL-WORLD PRACTICE: RESULTS FROM THE COBIS (CORONARY
BIFURCATION STENTING) REGISTRY

I2 Poster Contributions
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Background: The bifurcation angle (BA) is rising as a predictor of outcome after percutaneous coronary intervention (PCI) for bifurcation lesions. We investigated the impact of BA on periprocedural and clinical outcomes in patients with bifurcation lesions from the COBIS registry.

Methods: Patients who received PCI for bifurcation lesions were enrolled from 16 centers in Korea between January 2004 and June 2006. Patients were divided into 747 patients in the low-angle (<50°) and 730 patients in the high-angle group (≥50°) using the median BA as the cut point. We compared major adverse cardiac events (MACE), including cardiac death, myocardial infarction, and target lesion revascularization and periprocedural outcomes between the two groups.

Results: We evaluated 1,477 patients with bifurcation lesions and the median follow-up duration was 24 months. The incidences of MACE were not significantly different between the low-angle and the high-angle group (6.4% vs. 6.7%, P = 0.855). Across various subgroups, there was no difference in long-term outcomes between the high-angle group and the low-angle group consistently and no interaction was found between the angle group and diabetes, acute coronary syndrome, true bifurcation, stenting technique, stent type, respectively. Multivariate Cox regression analysis showed that the independent predictors for the occurrence of MACE were the implement of final kissing balloon inflation, serum creatinine >2.0mg/dl, the use of paclitaxel-eluting stent for the treatment of main vessel, and stent length > 30mm in the main vessel.

Conclusions: BA does not influence long-term clinical outcome of patients after PCI of coronary bifurcation lesions in real-world regardless of diabetes, acute coronary syndrome, true bifurcation, stenting technique, and stent type.