POTENTIAL BENEFIT OF FINAL KISSING INFLATION AFTER SINGLE STENTING TO BIFURCATION LESIONS:
DIFFERENCE OF OPTICAL COHERENCE TOMOGRAPHY FINDINGS IN SIROLIMUS AND PACLITAXEL-ELUTING STENTS

i2 Poster Contributions
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Background: Final-kissing balloon inflation (FKI) after single stenting to bifurcation lesions may reduce the number of strut hanging over the ostium of side branch (jailed struts). The effects of FKI might be different between SES (Cypher) and PES (Taxus Liberte).

Methods: Forty five true bifurcation lesions treated with single drug-eluting stents (Cypher: n=29 , Taxus Liberte: n=16 ) with or without FKI (FKI(+) FKI(-)) were analyzed by optical coherence tomography (OCT) at 8 months post implantation. At bifurcation lesion, % jailed strut (number of jailed strut / total strut) and frequency of thrombus attachment were evaluated.

Results: % jailed strut was significantly less in FKI(+) than FKI(-) (5.02±5.46% vs. 19.01±6.57 %, P<0.01). Thrombus attachment to jailed struts was less frequent (6.7% vs. 29.2%, P<0.05) in FKI(+) than FKI(-), and this pattern is similar in Cypher and Taxus Liberte. Among FKI(+) lesions, Taxus Liberte showed significantly less % jailed strut than Cypher (3.79±4.39 % vs 8.08±5.56 %, P<0.01), suggesting better expansion capacity at the orifice of side branch.

Conclusions: OCT evaluation demonstrated that FKI reduces the frequency of jailed strut and thrombus attachment at side branch orifice, which is more prominent in Taxus Liberte than Cypher. The effect of FKI on the reducing thrombus formation does not depend on stent types.