IMPACT OF RESIDUAL SIDE-BRANCH STENOSIS ON CLINICAL AND ANGIOGRAPHIC OUTCOME AFTER SINGLE DES IMPLANTATION WITH FINAL KISSING BALLOON TECHNIQUE

i2 Poster Contributions
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Background: Treatment of bifurcations is a complex problem even in Drug-Eluting Stent era. It is unknown whether residual stenosis at side-branch ostium (SBO) affects clinical outcome in the setting of single DES implantation with final kissing balloon technique for non-LMT bifurcation lesion.

Methods: Residual stenosis (RS) >50% in visually, or major dissection (NHLBI type C, D or E) at SBO but TIMI3 flow was maintained after single DES implantation with final kissing balloon technique was defined as “RS group” and RS ≤50% as “non-RS group”. Of 1454 patients treated with DES from April, 2007 to December, 2008, we analyzed 154 patients (163 lesions) treated with this strategy, and divided RS group (47 patients, 47 lesions) and non-RS group (107 patients, 116 lesions) for comparison.

Results: There were no differences in baseline patient-characteristics. In lesion-characteristics, the rate of true bifurcated lesion was significantly higher in RS-group (66.0% vs. 47.4%, p=0.03). Strategy of PCI was also similar. In 8 month angiographic follow up, regarding main-branch, QCA showed similar results between 2 groups in minimal lumen diameter (MLD) or % diameter stenosis (%DS) (MLD: 2.16 +/- 0.67mm vs. 2.14 +/- 0.73mm, p=NS. %DS: 19.9 +/- 23.1% vs. 24.1 +/- 23.1%, p=NS). Regarding SBO, QCA showed MLD was lower, and %DS was higher in RS group, compared to non-RS group (MLD: 0.88 +/- 0.47mm vs. 1.43 +/- 0.54mm, p<0.001. %DS: 60.4 +/- 20.0% vs. 39.5 +/- 20.2%, p<0.001), however no difference was seen in MACE (14.9% vs. 9.5%, p=NS.) or clinically-driven TLR (8.5% vs. 8.6%, p=NS.) between 2 groups.

Conclusion: Difference of angiographic severity at side-branch ostium in index procedure remained to follow-up term; however it does not have an impact on clinical outcome, suggesting that additional stenting for side-branch ostium is not necessary if TIMI3 flow was at least obtained.