

## ACC-i2 with TCT

### CHARACTERISTICS AND PREDICTORS OF SIDE BRANCH NARROWING AFTER MAIN VESSEL STENTING IN CORONARY BIFURCATION LESION

i2 Poster Contributions

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**Background:** Side branch narrowing (SB-N) after the main vessel (MV) stenting unexpectedly occurs in coronary bifurcation lesions. We sought to investigate clinical characteristics and predictors of SB-N.

**Methods:** We retrospectively investigated 76 consecutive patients who undertook provisional stenting under the intravascular ultrasound (IVUS) guidance in the left anterior descending and diagonal bifurcations. The patients were divided into two groups, SB-N (n=20) and NN (n=56), according to with or without the advancement of SB-N after MV stenting.

**Results:** There was higher prevalence in smoking history in the group SB-N (60% vs. 32%, p=0.03). The group SB-N had less true bifurcation lesion (30% vs. 82%, p= 0.0001), more Y-shaped bifurcation (95% vs. 72%, p=0.054) and less performance of the IVUS in the SB (20% vs. 56%, p=0.007). All 4 cases of the SB occlusion were relieved by kissing balloon inflation without additional stenting in the group SB-N, while 2 stent was deployed in 16% in the group NN (p=0.056). Multivariate analysis detected the lateral-side plaque in the distal MV as a positive predictor, and the IVUS in the SB, true bifurcation lesion and the SB-side plaque in the proximal MV as negative predictors.

**Conclusion:** Non-true and Y-shaped bifurcation lesion which has the plaque in the lateral side of the distal MV is likely to occur the SB-N after the MV stenting.

	P value	Odds ratio	95% confidence interval	
			upper	lower
Smoking history	0.158	5.057	0.533	47.941
Hypertension	0.925	1.178	0.04	34.973
Diabetes mellitus	0.666	1.676	0.16	17.505
True bifurcation lesion	0.045	0.005	<0.001	0.899
Y-shaped	0.152	88.21	0.194	>999.999
MV >90%	0.102	7.735	0.665	90.018
SB >75%	0.258	0.186	0.01	3.439
IVUS (SB)	0.005	0.024	0.002	0.323
Plaque	Distal MV lateral	0.009	>999.999	10.578
	Distal MV carinal	0.051	116.906	0.972
	Proximal MV SB side	0.031	0.003	<0.001
Calcification	Distal MV lateral	0.065	0.042	0.001
	Distal MV carinal	0.075	0.006	<0.001
	Proximal MV SB side	0.246	20.918	0.123
SB predilatation	0.73	0.648	0.055	7.672