

One Stent for Bifurcation Lesions: Predictors and Clinical Outcome after Crossing into 2-Stents

Assali, Abid¹; Vaknin-Assa, Hana¹; Brosh, David¹; Bental, Tamir¹; Teplitsky, Igal¹; Rechavia, Eldad¹; Lev, Eli¹; Battler, Alexander²; Kornowski, Ran²

¹Rabin Medical Center, Interventional Cardiology, Petah Tikva, Israel; ²Rabin Medical Center, Cardiology, Petah Tikva, Israel

Background: A 'simplified' approach, e.g. stenting of the main branch with or without provisional stenting of the side branch, is currently implemented in the majority of bifurcation PCI cases.

Objective: To investigate the causes and clinical outcomes of crossing to 2 stents strategy during PCI of bifurcation lesions in our "real world" practice.

Methods & Results: The study included 540 consecutive patients with bifurcation lesions who were planed for single stent strategy. In 77 pts [14.3%] the plan was changed and crossed side branch stenting as well (due to dissection or unsatisfactory angio result).

	One stent [n=463]	Crossed to 2 stents [n=77]	P-value
Age [year]	64±12	61±13	0.4
Male	78%	77%	0.8
ACS	58%	77%	0.05
LAD/DIAG	57%	56%	0.99
True bifurcation	78%	88%	0.1
DES stenting	63%	41%	0.01
SB-Dilatation	38%	75%	0.001
One month MI	1.9%	5.2%	0.08
One month Stent thrombosis	1.3%	5.2%	0.02
6 month MI	3.9%	10.5%	0.01
6 month Stent thrombosis	1.3%	5.2%	0.02
6 month TVR	7.3%	18%	0.001

Conclusions: Our data indicate that ACS presentation, BMS stenting of the main branch and pre-dilatation of the side branch are altogether factors that predict and/or cause the need for 2 stents in bifurcation stenting. Crossing into 2 stents was associated with worse clinical outcomes. Thus, careful procedure planning is highly recommended.