

**PERCUTANEOUS CORONARY INTERVENTIONS:
ATHERECTOMY, LESION SUBJECTS AND DIRECT
STENTING**

P3503 Stenting of lesions in small and large diameter coronary arteries in the same patient: 6 month clinical and angiographic results of the prospective STANZA study

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Background: Assessment of the magnitude of the effect of vessel calibre on restenosis after stent deployment is hampered by the influence of both patient and procedure related factors. Comparing lesions treated in small and large calibre vessels in the same patient controls for some of the factors influencing restenosis.

Methods: This multicentre, prospective quantitative angiographic study evaluated patients with de novo coronary disease undergoing stent deployment, including one lesion < 16 mm length in a vessel < 2.75 mm diameter, and another lesion < 16 mm length in a vessel ≥ 3.0 mm. A 7 cell 9 or 16 mm NIR stent was deployed in the small vessel and a 9 cell 9 or 16 mm length stent NIR stent in the large vessel. Clinical outcome and quantitative angiography (baseline and at 6 months, CMS-Medis) were assessed.

Results: Of 94 patients enrolled, 76% were male, mean age was 62 years (range 40–85), 41% were hypertensive, 18% had diabetes, 15% were current smokers and 64% had hypercholesterolaemia. Additional lesions were treated in 23% of patients. The procedural success rate was 99%. At one month post-procedure there were no deaths, 1 CABG operation, 1 Q wave myocardial infarction, 1 repeat intervention and no subacute occlusions. At six months there were 12 additional events (7 rePTCA, 1 CABG, 1 non Q MI, and 3 PTCA of other lesions). Six month angiography was performed in 76 patients (92% of those eligible).

Diameter (mm)	Small vessel	Large vessel
Vessel reference	2.36 +/- 0.40	3.24 +/- 0.59
Minimal lumen		
pre stent	0.86 +/- 0.31	1.12 +/- 0.48
post stent	2.09 +/- 0.37	2.92 +/- 0.0
6 months	1.50 +/- 0.56	2.25 +/- 0.76
Restenosis rate (>50%)	25%	14%

Conclusions: Multivessel stenting including treatment of lesions in small calibre vessels can be performed with a good clinical and angiographic outcome. When patient related factors are identical, and the operator and stent type the same, vessel diameter has a major influence on the rate of restenosis post stent deployment.

P3504 A stepwise strategy for the stent treatment of bifurcated coronary lesions

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Several observational studies have shown a better late outcome in patients with coronary bifurcations lesions treated with stents in whom the side branch was not stented. So, balloon dilation and provisional stenting for the side branch seems an attractive strategy to successfully manage these challenging type of lesions. We analyze the results of a strategy that involved a three stepped phases; progression through each phase was triggered by the failure of the current procedure to achieve a <50% residual stenosis at the side branch.

Methods: First step: balloon angioplasty of the side branch followed by stenting of the parent vessel. Second step: new balloon dilation of the side branch origin across the metallic structure of the stent. Third step: stenting of the side branch origin crossing the struts of the parent vessel stent. Following this strategy we treated 126 patients, 58 ± 11 years old, with major coronary bifurcation stenosis. Bifurcated lesions were located at the left main coronary artery in 14 (11%), left anterior descending artery in 54 (43%), circumflex artery in 37 (29%) and right coronary artery in 21 (17%). The mean follow-up period was 12 ± 10 months. Angiographic re-evaluation studies were performed in all 63 patients having symptoms during this period of time.

Results: The results are summarized in the table.

	n	Procedural success	Failure	Crossing next step	TVR
First step	126	35 (28%)	3	88	5/38 (13%)
Second step	88	76 (86%)	7	5	13/83 (16%)
Third step	5	5 (100%)	-	-	1/5 (20%)
Overall	126	116 (92%)	10 (8%)	93 (74%)	19 (15%)

TVR: Target vessel revascularization.

Conclusions: Patients with coronary stenosis at major bifurcations may be treated following a stepwise approach based on the immediate angiographic result. This attitude may preclude side branch stent implantation in most patients, providing better long-term results.

P3505 Predictive factors of target lesion revascularisation and late cardiac events after stent implantation in saphenous vein grafts

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Background: Stent implantation in saphenous vein grafts (SVG) has been shown to improve procedural results and reduce late restenosis. However, the predictors of target lesion revascularisation and late cardiac events after stent implantation in SVG lesions are not known.

Methods: We studied 740 consecutive patients with 1088 SVG lesions treated with a variety of stents. Important clinical characteristics included males 78%, unstable angina 72%, diabetes 29% (insulin treated 14%), chronic renal insufficiency 9%, hypertension 66%, degenerated grafts 56%, and ostial lesions were 23%. Average graft age was 104±58 months.

Results: By quantitative coronary angiography the reference lumen diameter was 3.50±0.77mm and diameter stenosis was 6.25±16.8%. Final lumen cross-sectional area (CSA) by IVUS was 9.35±4.22mm². At one year follow-up the TLR was 13% and MACE rate was 23%. Independent predictors of TLR and MACE are shown in the table.

Predictors of TLR.	OR	P	Predictors of MACE	OR	P
Unstable angina	1.60	0.03	Unstable angina	2.18	0.003
Diabetes	1.55	0.02	Diabetes	1.71	0.002
Previous PTCA	2.2	0.001	Previous PTCA	1.64	0.05
Number of stents	1.31	0.05	Number of stents	1.68	0.01
Ostial lesions	1.72	0.01			
Graft age	1.01	0.05			
Final IVUS lumen CSA	0.72	0.004			

TLR=target lesion revascularisation, MACE=major adverse cardiac events, CSA=cross-sectional area

Conclusions: The strongest predictors of TLR and MACE in patients after stent implantation in SVG lesions are unstable angina, diabetes, previous PTCA, and number of stents. Patients with these characteristics should be followed very closely after SVG stenting.