P3510 Stenting of bifurcation lesions using the Bestent. A prospective two-centre study

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Background: Treatment of bifurcation lesions remains a technical challenge. Among 13 stents tested in a bench study, the Bestent seemed of particular interest in this indication: good access to the side branch after stent implantation in the main branch associated with satisfactory coverage of the lesion after kissing balloon inflation (Kiss).

Methods: The use of Bestents implanted in the main branch or both branches for treatment of bifurcation lesions involving a side branch > 2.2 mm in diameter was prospectively evaluated in a dual center prospective study with 6 month clinical follow-up. All angiographic documents were analyzed by an independent corelab (Corysis).

Results: Between 9/11/1997 and 2/21/1998, 97 pts were consecutively included, mean age 63.7±11.4 yrs., 81.4% male, 57.7% with unstable angina and 7.2% acute MI. The lesion involved the LAD-diagonal bifurcation in 55.7% of cases, LCX-marginal 22.7%, PDA-PLA 11.3%, distal left main 6.2% and others 4.1%. The main branch (proximal reference diameter: 3.44±0.43 mm) was stented in 97.5% of cases and the side branch (2.70±0.37 mm) in 37.1%. To avoid metal protrusion into arterial lumen, Kiss was performed after stenting in 78.3% of cases. Procedural success was obtained in 100% of cases in the main branch and 97.8% in both branches. Major adverse cardiac events (MACE) during hospitalization occurred in 5.2% of cases (non-Q-wave MI 3.1%, Q-wave MI 1.0%, RePTCA 2.1%, no emergency CABG and death 1.0%). At 6-month follow-up, total MACE rate was 15.4% (Q-wave MI 3.1%, non-Q-wave MI 3.1%, Target vessel revascularization (TVR) 9.3% and death 3.1%). Patients with TVR had restenosis of the 2 branches in 2.0% of cases, main branch in 2.1% and side branch in 5.2%.

Conclusion: This study shows that the Bestent can be used for treating bifurcation lesions with a high rate of success and an acceptable rate of TVR at 6-month follow-up.

P3511 Favourable outcome after left main coronary artery stenting: clinical and angiographic results of 182 patients

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Background: Left main coronary artery disease (LMCA) has been a great challenge for interventionists. The increase use of coronary stenting may have improved the results of the percutaneous approach. The aim of this study was to analyse the clinical and angiographic short and long-term outcome of 182 patients with LMCA stenting.

Methods: We analysed 182 consecutive patients after LMCA stenting. Included were also patients presenting with acute myocardial infarction or in the setting of cardiogenic shock. Clinical events were recorded at 30 days and after 9 months. Follow up angiography was available in 75% of eligible patients.

Results: The primary success rate was 96.2%. 24 (13.2%) patients presented with acute myocardial infarction (AMI) and 19 (10.4%) were in cardiogenic shock. 121 (66.5%) had unprotected LMCA disease. Abciximab was administered in 54 (29.7%) of patients. MACE rate (death, myocardial infarction or target vessel revascularisation) within the first 30 days was 12.6%. 8 (4.4%) patients died, 5 of whom were in cardiogenic shock. Additionally, 2 patients died within 9 months. The follow up angiography showed a restenosis rate of 16%.

Conclusions: Taking into account the high risk usually presented by LMCA disease, coronary stenting in these patients appears to be a safe procedure, with favourable long-term results. This is particularly important when considering the high proportion of patients with cardiogenic shock or AMI.

P3512 Early and late outcome of catheter interventions for left main coronary artery stenoses

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We reviewed our experience with 163 unselected consecutive patients with significant left main coronary artery (LM) stenoses. 76 patients had a protected and 87 patients unprotected LM circulation. 19 of the 76 patients with protected LM (P-LM) exhibited myocardial ischemia related to LM disease: repeated coronary bypass surgery (CABG) was performed in 5 patients, intracoronary thrombolysis in 1 patient, direct- and trans-myocardial revascularization in 2 patients, and elective coronary angioplasty in 11 patients (9 male, 69±11 y, P-LM group). CABG was performed in 69 of the 87 patients with unprotected LM (UP-LM), 6 patients died during the waiting period for CABG. 12 patients with UP-LM unsuitable for CABG or with cardiogenic schock underwent coronary angioplasty (11 male, 68±12 y, UP-LM group). Intracoronary stents were implanted in 9 and 10 patients in groups P-LM and UP-LM and balloon angioplasty was performed in 4 patients (2 in P-LM and 2 in UP-LM groups). 91% and 75% of procedural success rate could be achieved in P-LM and UP-LM groups; balloon PTCA failed to result a significant improvement of LM stenosis in 1 patient in P-LM group, while in UP-LM group 2 patients (one with acute myocardial infarction) with therapy-resistant cardiogenic schock died during the procedure, and 1 patient was bypass-operated immediately after unsuccessful stent implantation of LM. The mean follow-up (FUP) duration of the 11 patients in P-LM and 10 patients in UP-LM groups was 5.6±3.4 months. In P-LM group, 1 patient died and 1 restenosis developed requiring coronary reintervention, thus, an event-free survival rate of 81.8% could be achieved in P-LM interventions. In UP-LM group, 3 patients underwent CABG and 1 patient (refusing CABG) died during the FUP period, thus the event-free survival rate of patients with UP-LM underwent primary coronary angioplasty was 60%. In conclusion, CABG cannot be replaced with percutaneous interventions in unprotected LM stenoses. However, in the case of CABG contraindications, impossibility of performance of CABG or cardiogenic shock, stenting of the unprotected LM stenosis may be a successful rescue procedure with an overall event-free long-term survival rate of about 60%.

P3513 Combined coronary stent treatment of unprotected left main disease and severe coronary lesions located at remote sites

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Isolated left main coronary disease may be treated safely with stents. However, associated coronary lesions amenable for stent treatment at remote sites are frequent and may increase the complexity of the procedure.

Methods: From September 1992 we selected for stent treatment 107 patients having unprotected left main coronary stenosis. The mean age was 61 ± 11 years; 81 (78%) were male. The clinical condition was unstable in 90 (84%). Eighty four patients (Group A) (79%) needed stent repair of remote lesion located in the left system (n = 54) and/or the contra lateral right coronary (n = 37). The mean number of treated remote lesions in this group of patients was 2.5 ± 1. The remaining 23 (21%) had isolated left main disease (group B). This study compares the immediate and follow-up results between both groups of patients. There were not significant differences between groups in terms of angiographic or procedural parameters related to the left main site.

Results: The table shows the main comparative results.

	Primary success	In-hospital mortality	LM-restenosis	Late MACE
Group A	82 (98%)	2 (2%)	15/44 (34%)	27 (37%)
Group B	21 (91%)	2 (9%)	3/11 (27%)	4 (20%)

LM: left main; MACE: major adverse coronary event.

Conclusions: The combined stent treatment of unprotected left main coronary stenosis and severe lesions located at remote sites does not adversely influence initial results. However, a trend to an increased rate of late major adverse coronary events is observed, as compared with isolated left main treatment.