Early clinical outcomes after Promus Element coronary stent implantation in long lesions.

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Purpose

To evaluate the short-term clinical outcomes after Promus Element coronary stent system (everolimus-eluting stent based on a platinum chromium platform) implantation in patients with long lesions.

Materials and Methods

Between December 2009 and May 2010, 81 consecutive patients underwent percutaneous coronary intervention with Promus Element stent implantation in long lesions with a stented length of ≥24mm. The incidence of in-hospital and short-term Major Adverse Cardiac Event (death, myocardial infarction, target lesion revascularisation) rate was examined.

Results

Baseline characteristics	
n	81
Clinical Characteristics	
Mean Age (years)	67 (Range: 42 to 90)
Men (%)	77
Diabetes Mellitus (%)	19,8
Acute Coronary Syndrome (%)	84
Stable Angina (%)	16

Angiographic characteristics	
Total Occlusions	13
Bifurcation lesions	23

PCI Data	
Number of Stents implanted	2,58±1,23 per patient
Stent Diameter (mm)	Mean±StDev: 2.84±0.31
Stent Length per patient (mm)	Mean±StDev: 60,3±27.5 / Range: 24 to 128
Post - dilation (% of the cases)	97,5
Number of vessels treated per patient	1,59±0,69
Number of stents per lesion treated	1,32±0,55

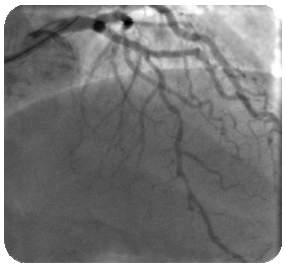

Fig.1:Very long lesion of LAD

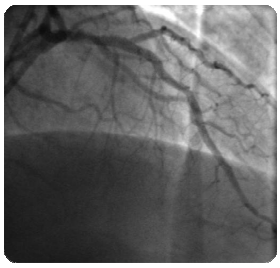

Fig.2:Final result

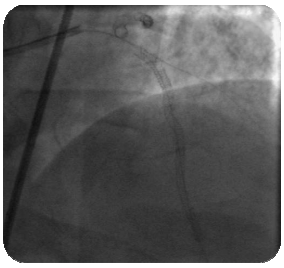

Fig.3:Stent length 80mm

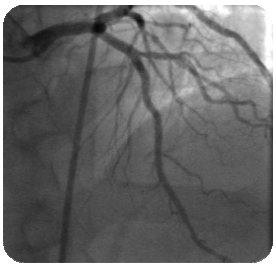

Fig.4: 8 months follow up

Conclusions

Procedural success rate was 100% with no in-hospital MACE. In this retrospective study, 9 months clinical follow-up was completed in all patients and during this period there were 2 deaths. 1 patient with a recent history of an extensive anterior MI died suddenly one month post-PCI (probable stent thrombosis) and 1 patient died due to cerebrovascular accident. Another patient who received a stent in the mid-LAD developed a new critical ostial LAD lesion, 8 months after the index procedure and underwent CABG. No patients required repeat revascularisation for in stent restenosis and there were no myocardial infarctions.