

CLINICAL OUTCOMES AFTER DRUG-ELUTING STENT IMPLANTATION FOR DIFFUSE DISEASE OF THE LEFT ANTERIOR DESCENDING CORONARY ARTERY.

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Purpose

We sought to evaluate the long-term clinical outcomes after percutaneous coronary intervention (PCI) with drug-eluting stents (DES) in patients with diffuse disease of the left anterior descending coronary artery (LAD).

Materials and Methods

We retrospectively identified and analyzed clinical and angiographic data from 118 consecutive patients, treated between January 2005 and May 2010, who received multiple overlapping stents in the LAD, with a total length of more than 50 mm (Full Metal Jacket). We recorded the occurrence of long-term major adverse cardiac events (MACE), defined as death from all causes, myocardial infarction (MI) or target lesion revascularization.

Results

Baseline characteristics		Angiographic characteristics	
n	118	Underwent 1 vessel PCI (%)	52
Clinical Characteristics		Underwent 2 vessel PCI (%)	37,3
Mean Age (years)	63 (Range: 29 to 85)	Underwent 3 vessel PCI (%)	10,7
Men (%)	81	Total Occlusions (%)	26,3
Diabetes Mellitus (%)	32,2	Bifurcation lesions (%)	19,5
Previous PCI (%)	9,3		
Previous CABG (%)	5,1		

PCI Data	
Number of Stents implanted	3,48±1.26 per patient
Stent Diameter (mm)	Mean±StDev: 2.84±0.22
Stent Length per patient (mm)	Mean±StDev: 81,3±26.2 / Range: 51 to 171
Post - dilation (% of the cases)	88,1

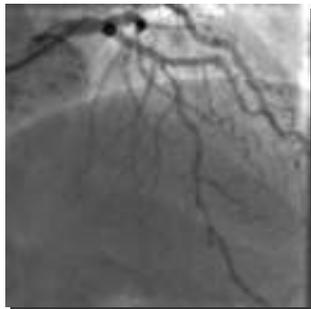


Fig.1:Very long lesion of LAD



Fig.2:Final result

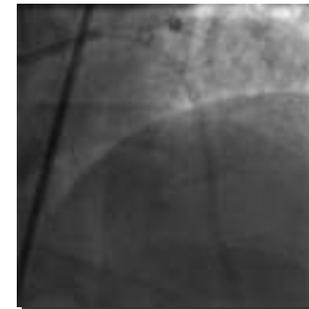


Fig.3:Stent length 80mm

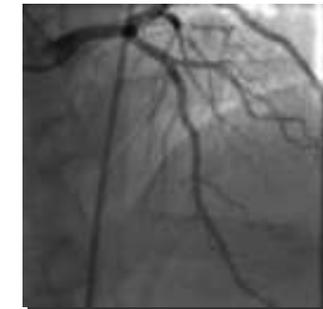


Fig.4: 8 months follow up

In-Hospital Clinical Outcomes

During the index hospitalization, there were no deaths or need for repeat revascularization.

- 5 (4.2%) patients had a periprocedural MI, defined as an increase in CK-MB value of more than three times upper limit of normal.

Long-Term Clinical Outcomes

Clinical follow-up was completed in 113 patients and during a period of 37,6±17,6 months (range: 7 to 72 months) there were:

- ❖ 4 (3,5%) non-cardiac deaths
- ❖ 2 (1,8%) cardiac deaths
- ❖ 5 (4,4%) patients underwent repeat revascularisation due to restenosis (3 patients have repeated PCI and 2 patients underwent CABG).

Conclusions

PCI with DESs, in selected patients with long lesions of the LAD, was associated with a relatively low incidence of adverse cardiac events, at long-term clinical follow-up. In the present study, PCI with DESs for long lesions in the LAD, was associated with a low incidence of major adverse cardiac events, at long-term follow-up. These favorable results are in agreement with previous studies, which support the use of percutaneous revascularization in selected patients with diffuse coronary artery disease.

The authors have no conflict of interest.