

CLINICAL OUTCOMES AFTER MULTIPLE OVERLAPPING DRUG-ELUTING STENT IMPLANTATION FOR DIFFUSE CORONARY ARTERY DISEASE.

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Background

Although drug-eluting stents (DES) have significantly reduced the rate of angiographic restenosis compared with bare-metal stents, percutaneous coronary intervention (PCI) of long coronary lesions is still challenging in the current era.

Aims

We sought to evaluate the long-term clinical outcomes after percutaneous coronary intervention with drug-eluting stents in patients with diffuse coronary artery disease.

Methods

We retrospectively identified and analyzed clinical and angiographic data from 211 consecutive patients treated between January 2006 and May 2010, who received multiple, overlapping stents with a total length of more than 50 mm. 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 (TLR).

Results

Demographic and Clinical data (n=211)		Angiographic data (n=211)	
Mean Age (years)	64 (Range: 29 to 85)	Target vessel	
Men (%)	85	RCA	95
Diabetes Mellitus (%)	28,9	LAD	91
Previous PCI (%)	13,3	Cx/RI	27
Previous CABG (%)	16,6	SVG	3
PCI Data		1 vessel PCI	103 (48,8%)
Number of Stents implanted (per patient)	3,41±1.09	2 vessel PCI	87 (41,2%)
Stent Diameter (mm)	2.86±0.25	3 vessel PCI	21 (10%)
Stent Length per patient (mm)	82,2±24,1 Range: 51 to 167	Total occlusions	56
		Bifurcation lesions	38

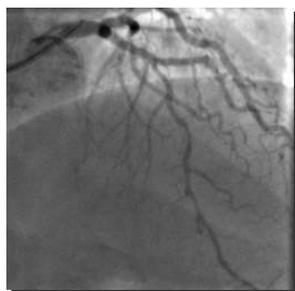


Fig.1:Very long lesion of LAD



Fig.2:Final result

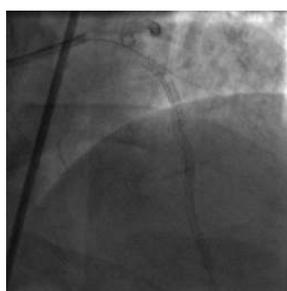


Fig.3:Stent length 80mm



Fig.4: 8 months follow up

In-Hospital Clinical Outcomes

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

- 8 (3.8%) 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 202 patients and during a period of 35,9±17,1 months (range: 8 to 60 months) there were:

- ❖ 6 (2,8%) non-cardiac deaths
- ❖ 3 (1,4%) cardiac deaths
- ❖ 5 (2,4%) patients underwent repeat revascularisation due to restenosis (3 patients have repeated PCI and 2 patients underwent CABG).
- ❖ 3 (1.4%) patients underwent PCI in another vessel during the follow-up period.

Conclusions

In the present study, PCI with DESs 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.