

LONG-TERM OUTCOMES OF PERCUTANEOUS CORONARY INTERVENTION FOR UNPROTECTED LEFT MAIN CORONARY ARTERY DISEASE: INITIAL CLINICAL EXPERIENCE.

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Introduction

Significant stenosis of the unprotected left main stem (ULM) has a worse prognosis than any other form of coronary artery disease. Coronary artery bypass graft surgery (CABG) has been considered the optimum revascularization treatment for patients with de novo left main (LM) disease and/or three-vessel disease (3VD). The introduction of drug-eluting stents (DES) in clinical practice has significantly reduced the risk of restenosis and re-intervention over time, leading to their rapid widespread and extensive use, even for more complex, off-label lesions such as ULM stenosis.

Objectives

This study aims to evaluate the clinical outcomes of patients undergoing PCI with drug eluting stents to ULM disease in a regional hospital.

Methods

Of 1,376 percutaneous coronary intervention (PCI) procedures performed in our institution from January 2007 to February 2011, 52 (2.9%) consecutive patients receiving unprotected left main stem (LM) intervention were identified. The decision for PCI over other modalities is based on surgical risk, and/or patient/physician preference. 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

TABLE 1: Demographic and Clinical data (n=52)		TABLE 2 : Angiographic data (n=52)	
Age (yrs)	64,4 ± 13,5	Isolated LM	16 (30.8%)
Male	42 (80.7%)	LM with 1-vessel disease	29 (55.8%)
DM	10 (19.2%)	LM with 2-vessel disease	6 (11.5%)
Arterial hypertension	22 (53.8%)	LM with 3-vessel disease	1 (1.9%)
Hypercholesterolemia	23 (44.2%)	Ostium involvement	14 (26.9%)
Smoking	28 (53.8%)	Shaft involvement	2 (3.9%)
COPD	4 (7.7%)	Distal LM involvement	36 (69.2%)
Peripheral artery disease	3 (5.7%)	Right coronary artery involvement	16 (30.7%)
Previous MI	8 (15.3%)	No. of diseased vessels treated per patient	1.6±0.66
Previous PCI	12 (23.1%)		
Previous CABG	4 (7.7%)	Mean Syntax Score	21.49±10,47
History of stroke	2 (3.8%)	SS ≤22	37 (71.1%)
Left ventricular ejection fraction <40%	12 (23.1%)	SS >22 and <33	8 (15.4%)
NSTE-ACS	27 (51.9%)	SS ≥33	7 (13.5%)
STEMI	3 (5.8%)		
TABLE 3 : Procedural data (n=52)		TABLE 4 : Clinical outcome (n=52)	
Total number of vessels	67	Follow-up period (months)	28.17±18.46
Mean number of vessels treated per patient (range)	1.6±0.6	Death	0 (0%)
Mean number of lesion treated per patient (range)	1.98±0.81	Myocardial infarction	0 (0%)
Total number of stents	95	Stroke	0 (0%)
Mean number of stents per patient	2.26±1.38	Repeat revascularization	5 (9.61%)
Mean stent length per patient (mm)	43.743±0.85	PCI	5 (9.61%)
Stent length in LM (mm)	19.88±6.09	CABG	0 (0%)
Stent diameter in LM (mm)	3.570±.39	Left main re-PCI	4 (7.69%)
Single stent in distal LM	30 (83.4%)	Stent Thrombosis	0 (0%)
IABP support	10 (19.2%)	MACE	5 (9.61%)
IVUS guidance	16 (30.7%)		
Complete revascularization	41 (78.8%)		
Procedural success	52 (100%)		

Conclusions

Our results showed that PCI with stenting was an acceptable treatment option for patients with LMCA stenosis. Implantation of DES for unprotected LMCA is feasible and offers good long-term outcome.