Favorable Long Term Outcome Following Drug Eluting Stent Implantation in Non Bifurcation Lesions Involving Unprotected Left Main Coronary Artery: a Multicenter European and Asian Registry

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Disclosures

The authors have nothing to disclose regarding this presentation

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Backgrounds I

- The presence of a lumen narrowing at the ostium and/or the body of an unprotected left main coronary artery (LMCA), which does not require bifurcation treatment, is a class I indication to surgical revascularization despite the fact that does not appear technically very demanding and can be treated with a single stent implantation

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Backgrounds II

- Recently, a multicenter registry have reported favorable outcome following DES implantation in in the ostium and/or body of unprotected LMCA stenosis

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Aim of the Study

- The aim of the study was to assess the safety and long-term efficacy of drug-eluting stent (DES) implantation in the ostium and/or body of unprotected LMCA stenosis

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Methods

- All consecutive patients (pts) who had a stenosis in the ostium and/or the mid-shaft of an unprotected LMCA (not requiring the treatment of the bifurcation) electively treated, from April 2002 to May 2005, with PCI and SES (Cypher, Cordis, Johnson and Johnson Company, Warren, NJ) or PES (Taxus, Boston Scientific, Natick, MA) in 7 Centres were analysed.

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Baseline Clinical Characteristics I

	(n = 208)
Age, years	64.0 ±11.9
Female gender, n (%)	74(35.6)
Hypertension, n (%)	124 (59.6)
Hyperchol, n (%)	108 (51.9)
Smoking, n (%)	70 (33.6)
Diabetes Mellitus , n (%)	43 (20.7)

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Baseline Clinical Characteristics II

	(n = 208)
Unstable Angina, n (%)	84 (40.4)
LVEF, %	56.9 ±11.7
Parsonnet	5.5 (2.5-13.8)
Euroscore	4 (2-7)
Euroscore >6 and/or Parsonnet>13 , n (%)	123 (59.1)
RCA disease, n (%)	70 (33.6)
RCA concomitant treatment	22

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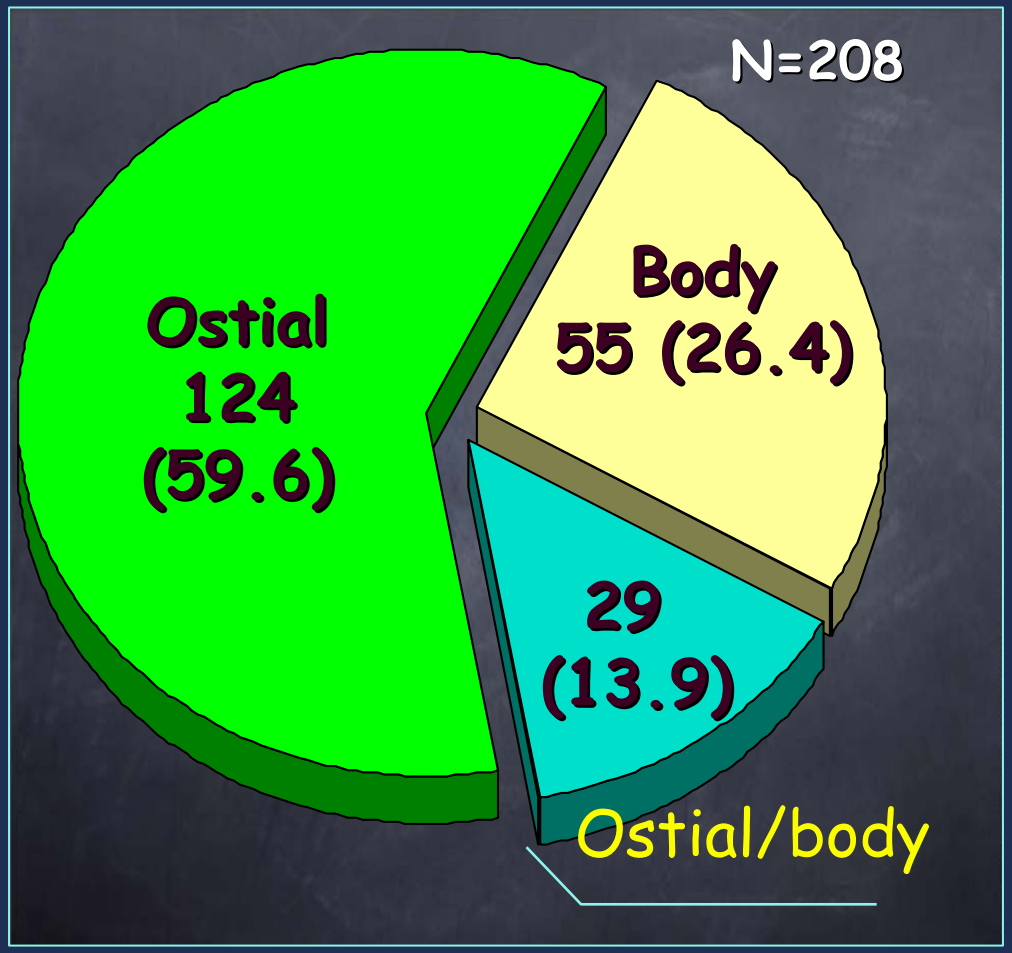
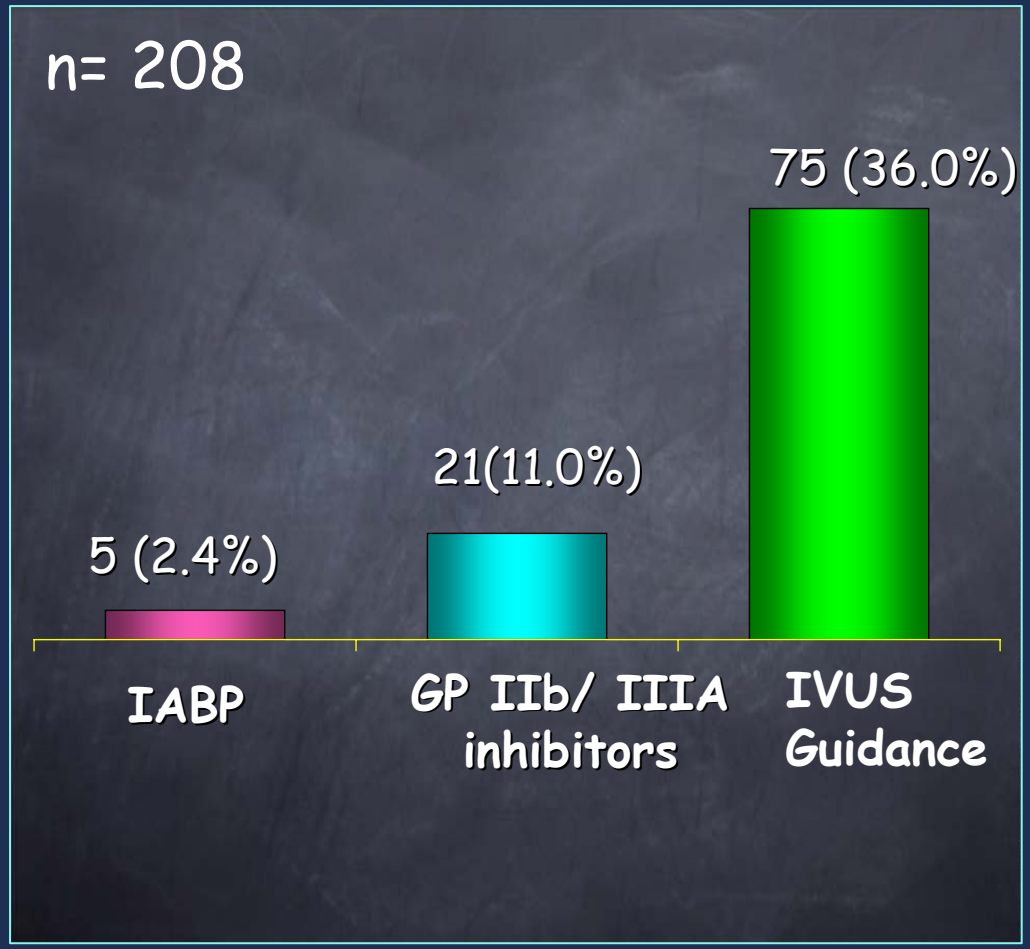
Ostial Left Main Multicenter Registry

Lesion Location



Procedural Characteristics



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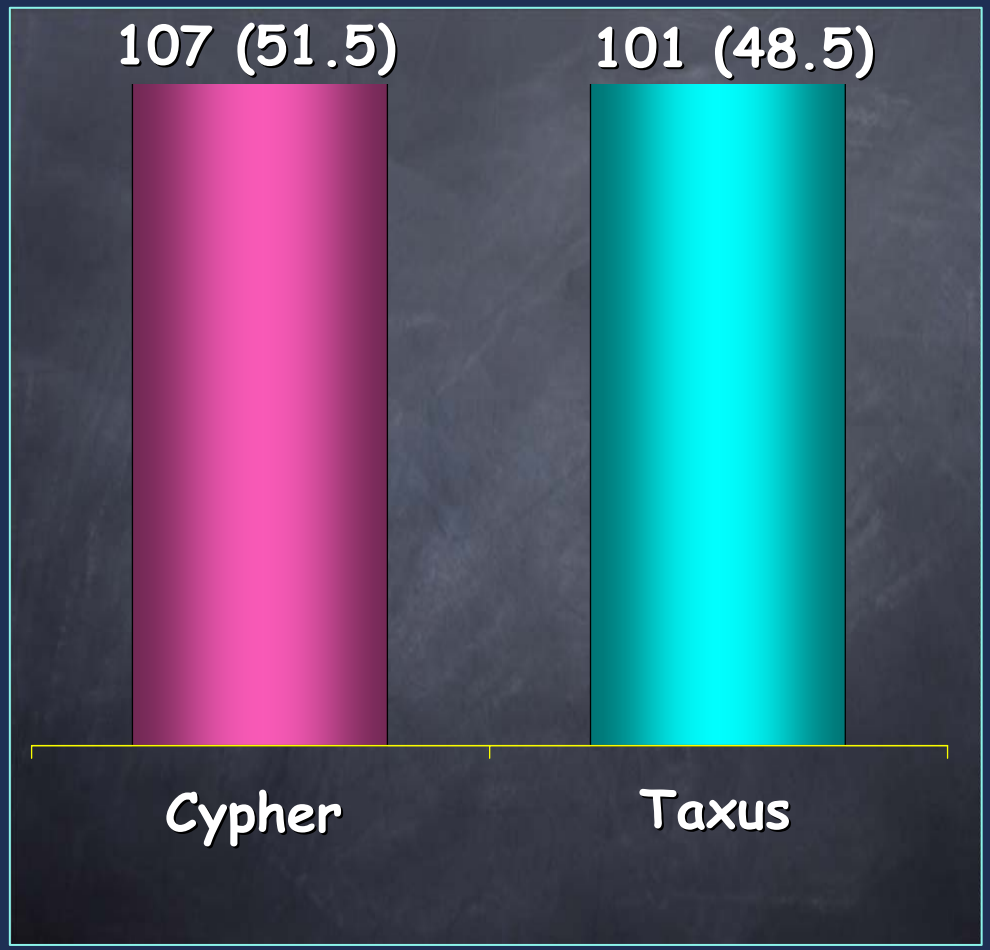
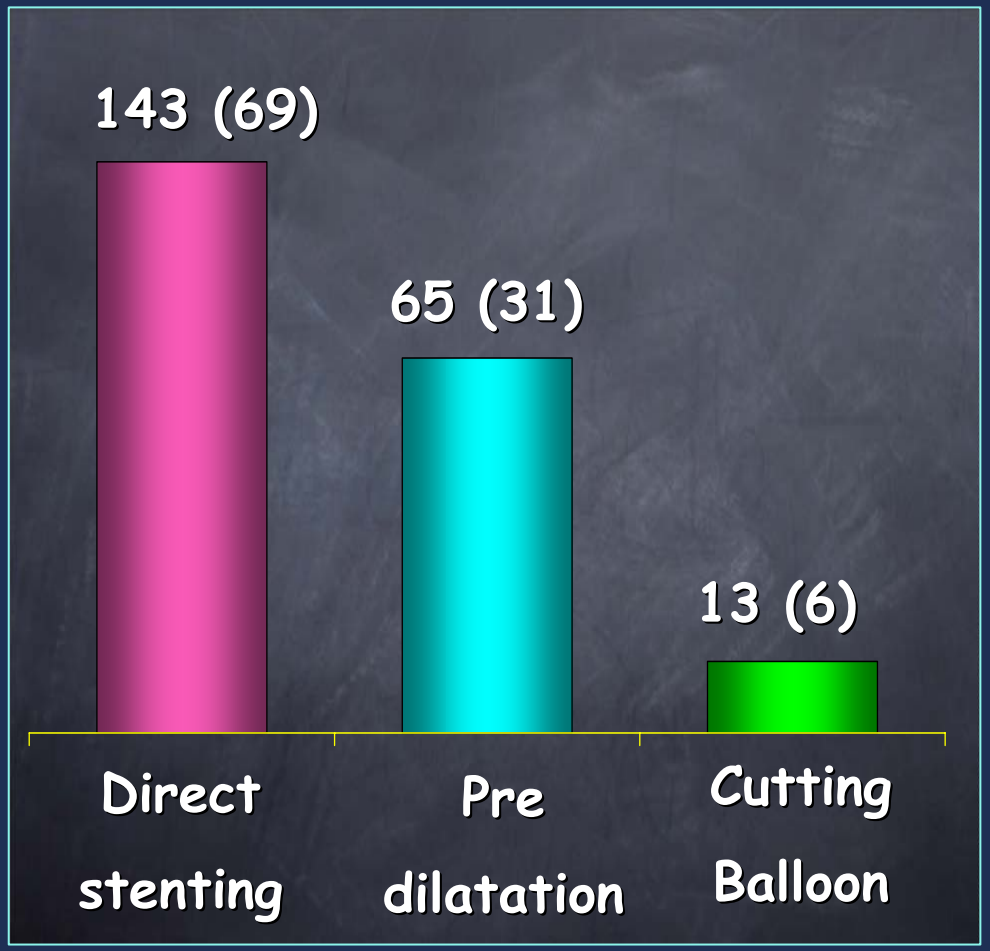
Ostial Left Main Multicenter Registry

n= 208

Type of Stent



Predilatation/Direct Stenting



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Ostial Left Main Multicenter Registry

Procedural Characteristics

	(n = 208)
Stent Length	14.5±7.5
Max pressure, atm	17.0± 4.3
Number vessel treated	1.33±0.9
Number lesions treated	1.77±1.5

QCA Measurements

	(n = 208)
Reference Vessel Diam ,mm	3.6±0.5
Pre MLD, mm	1.5±0.5
Lesion Length, mm	7.9±4.5
Final reference diameter, mm	3.7±0.5
Final MLD, mm	3.3±0.7

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In-Hospital Outcome

	n = 208
Q wave MI, n (%)	0
Non Q wave MI*	6 (2.9)
TLR or TVR, n (%)**	2 (1.0)
Death, n (%)	0
Acute Thrombosis, n (%)	0
MACE, n (%)	7 (3.3)

**defined as 3 times CK-MB ULN; **1 because of the presence of more than 30% residual stenosis after stenting and 1 for procedural complication*

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Ostial Left Main Multicenter Registry

6-Month Angiographic Follow-Up

Angiographic Fup was performed in 146 (70.2%) of the pts

	n=146
Restenosis, %	4 (1.9)
Late Loss, mm	-0.01

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Ostial Left Main Multicenter Registry

873±297 days Clinical Follow-Up

	n = 208
Death, n (%)	10 (4.8)
Cardiac Death	6 (2.9)
TLR, n (%)	4 (1.9)
TVR, n (%)*	18 (8.6)
MI, n (%)	2 (0.9)
MACE, n (%)	24 (11.5)

**16 re-PCIs and 2 CABG*

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Ostial Left Main Multicenter Registry

Stent Thrombosis

ARC Definitions

	n = 208
Definite Stent Thrombosis	0
Probable Stent Thrombosis	0
Possible Stent thrombosis	5 (2.4%)

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Five Patients Died of Unexplained Cause

	Pt 1	Pt2	Pt3	Pt4	Pt5
Age, ys	76	41	75	84	51
LVEF, %	30	25	40	35	40
Parsonnet	34	19	18	26	1
Euroscore	16	6	7	10	2
Time of death, ds	208	606	1149	1360	480

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Ostial Left Main Multicenter Registry

Conclusions

- In this multicenter registry evaluating PCI with DES implantation in non-bifurcation unprotected LMCA stenosis this procedure confirmed to be safe and effective.
- At 6 month angiographic follow-up the restenosis rate is 1.9%.
- The benefit is maintained at long-term clinical follow-up with a low MACE rate.