

Is Drug Eluting Stent Better than Bare Metal Stent for the Treatment of Proximal Left Anterior Descending Stenosis ?

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Background: Stenosis in the proximal segment of the LAD (pLAD) affects strategy treatment and has a major impact on clinical outcome .

Aims: To compare one year clinical outcome of DES implanted vs BMS at pLAD.

Methods: Retrospective analysis of 305 consecutive pts undergone to stenting of the pLAD with DES (162 pts) and BMS (143 pts) during 2004 to 2006. Demographic, clinical, angiographic and angioplasty characteristic of the patients as well one year mortality, myocardial infarction (MI) and repeated revascularization were studied.

Results: Baseline characteristics were of the same with the exception of a higher rate of smokers (51% vs.39%, $p=0.04$) and a previous stroke (13% vs 7%, $p=0.05$) in the BMS group. Pts receiving DES had less acute STEMI (43% vs 15%, $p<0.01$) and had more significant decrease of the LV function (44% vs.60%, $p<0.06$). DES lesions had lower rate of thrombus (21% vs 35%, $p<0.04$), smaller reference vessel diameter (3.2 ± 0.3 vs. 3.3 ± 0.4 , $p<0.01$) and longer lesion length (27 ± 15 vs. 19 ± 8). Patients treated with DES had lower rates of one year mortality (1.2 % vs. 6.3 %, $p<0.018$), revascularization (7% vs 15%, $p=0.04$) and composite end point of death, myocardial infarction and revascularization (12% vs 22%, $p=0.01$). In a multivariate analysis DES implantation in pLAD was an independent predictor of lower mortality rate (HR=0.09 [0.01-0.7], $p=0.02$) and composite end point of death, MI and revascularization (HR=0.48 [0.25-0.91], $p=0.02$).

Conclusions: The implantation of DES in the proximal segment of the LAD in selected patients results in better clinical outcome. However selection bias may have just as major impact and should be controlled in randomized trail.