Comparison of 7 Years' Long Term Clinical Outcomes of PCI Versus CABG in Patients with Unprotected LM Disease and a High Operative Risk

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Background: Left main coronary disease (LMCD) is still considered a surgical entity. We aimed to assess the long term clinical outcome of patients with significant LMCD who underwent PCI due to high operative risk compared with a similar cohort who underwent CABG.

Methods: Procedural outcomes and MACE during long term follow up were evaluated in patients with LMCD > 50% who had operative mortality risk > 10% according to logistic version of Euro SCORE.

Results: 55 consecutive pts underwent revascularization (CABG / PCI) from January 2000 – to the July 2003 in Hadassah University Hospital.

Group A included 39 pts treated by CABG, with average expected mortality risk of 33.3%. The in-hospital mortality was 15% (n=6). CABG complications were peri-operative MI (n=4), tamponade (n=2), acute graft failure (n=1), major bleeding (n=6, re-exploration in 4); CVA (n=2) and acute renal failure (n=2, one requiring dialysis).

Group B included 16 pts treated by PCI, with average expected mortality risk of 39.3%. Eight pts were in acute MI (shock in 5), in 3 pts PCI was started during CPR, and 5 were elective pts. Eleven pts had prohibitive risk for surgery and 5 pts decided against surgery. There was no in-hospital mortality. PCI complications were CPR (n=3), distal embolization (n=2), severe bradyarrhythmia (n=3) and contrast nephropathy (n=2).

Results of long term follow up (mean 7.5 +/- 1.6 years):

Mortality rate was similar (Group A – 38.7%, group B – 43.8%, p=0.43). Rate of repeat hospitalization was not significantly different (Group A 43.6% versus Group B 37.5%, p=0.44). There were no group B pts who underwent CABG. Rate of revascularization (PCI) was not significantly different (Group A 15.4% versus Group B 12.5%). Two Groups A pts underwent PCI to LM; one Group B pt underwent PCI to unprotected LM due to restenosis.

Conclusions: For patients with significant LMCD and a high surgical risk, PCI is as good as CABG and may be used as alternative strategy with equivalent long term clinical outcomes.