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2008;118:S_697

(*Circulation*. 2008;118:S_697.)
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Cardiac Surgery: Coronary Artery Disease I

Abstract 2278: Long Term Clinical Follow-up and Graft Patency of Off-pump vs On-pump Coronary Artery Surgery in Patients with ST-Segment Elevation Myocardial Infarction

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Off-pump coronary artery bypass grafting is better than on-pump in patients with STEMI underwent surgery within 2 days from onset of symptoms. Surgeons may be reluctant to use OPCAB due to concerns about completeness of myocardial revascularization and graft patency. The aim of this study was to assess long-term clinical outcomes and graft patency in this kind of patients. Participants in two previous randomized studies performed in our institution including 207 STEMI patients underwent emergent or urgent CABG within 48 hours from onset of symptoms were followed after surgery to assess graft patency and major adverse cardiac-related events (MACE). There were 145 patients operated in on-pump and 62 patients in off-pump. Patency was assessed by multidetector computed tomography coronary angiography (MDCTA) with a 64-slice scanner. Two blinded observers classified proximal, body and distal segments of each graft as occluded or not, or grade of stenosis. Clinical follow-up was obtained by our cardiologists. Overall early mortality was 5.3% (11 pts). Percentage of early mortality were 6.7% and 1.6% in on- and off-pump group respectively ($p < 0.05$). Follow-up was obtained in all 196 survivors and was 100% complete. Overall late deaths occurred in 14 patients (7%) without statistical significant difference between both groups; of the remaining 182, 168 (92.3 %) had

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MDCTA scans (108 pts in on-pump vs 60 pts in off-pump). Patency was studied in 335 grafts in on-pump and 156 grafts in off-pump. Mean duration of follow-up were 38±16 months and 37±14 months for on- and off-pump, respectively. Overall, 449/491 (91.5%) of grafts were patent. Percentages of overall grafts classified as patent were similar in on-pump and off-pump groups (307/335, 91.6% and 142/156, 91% respectively) and for arterial and vein grafts separately. There were also no differences between groups in the incidence of late death and MACE. Long term graft patency and MACE are similar with on-pump vs off-pump CABG in high risk STEMI patients when operation was performed by experienced surgeons. Supported by this results and by low early mortality in off-pump group, we suggests strictly the use of off-pump CABG in this type of patients.

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