

BEATING HEART VERSUS CONVENTIONAL CORONARY ARTERY BYPASS IN DIABETIC PATIENTS

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Objective: Diabetes mellitus is associated with a high morbidity and mortality after conventional coronary artery bypass grafting (CABG) with cardiopulmonary bypass (*On-pump*). The purpose of our study was to investigate whether CABG without cardiopulmonary bypass (*Off-pump*) may yield an improved clinical outcome in diabetic patients who received one or two grafts.

Methods: We compared the perioperative outcomes of diabetic patients who had *On-pump* (n=676) versus *Off-pump* CABG (n=237), between May 1987 and June 1999. Patients were included if they had only one or two vessels bypassed. The two groups were similar with respect to baseline characteristics (Parsonnet score: 21±9 for *On-pump* Vs. 20±10 for *Off-pump*, p=Non Significant [NS]).

Results: Comparative analysis is summarized (table).

	<i>On-Pump</i>	<i>Off-Pump</i>	P
OR PRBC	1.5±0.6	0.6±0.2	<0.001
Postoperative atrial fibrillation	209 (31%)	55 (23%)	0.02
Postoperative stay	7 ±2	5 ± 3	<0.001
Postoperative inotropes	140 (21%)	25 (10%)	<0.001
ICU stay	3 ± 2	2 ± 2	0.02
Postoperative transfusions	255 (38%)	69 (29%)	<0.001
Postoperative stroke	13 (2%)	1 (0.4%)	NS
In-hospital mortality	42 (6%)	8 (3%)	NS

OR PRBC: Packed red blood cells transfused in the operating room; ICU: Intensive care unit; Post-op IABP: Postoperative intra-aortic balloon pump.

Conclusions: *Off-pump* surgery in diabetic patients who had only one or two vessel bypassed was associated with a lower operative morbidity and abbreviated hospital and ICU length of stay than standard procedure *On-Pump* CABG. Mortality in both groups was low ($\leq 6\%$).