474686 - PERIOPERATIVE MORBIDITY AND CORONARY REVASCULARIZATION SURGERY

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Introduction: Coronary artery bypass graft (CABG) surgery is performed either with or without cardiopulmonary bypass (CPB). The objective of this study was to determine perioperative morbidity with the conventional on-pump, off-pump, and off-pump converted to on-pump CABG surgery.

Methods: After REB approval we examined data collected prospectively on patients undergoing primary elective CABG surgery as part of an Anesthesia Perioperative Outcomes Database. Based on the type of CABG surgery all patients were classed into three groups: conventional on-pump, off-pump, and off-pump converted to on-pump. Patients were matched for age, sex, and preoperative risk factors. Perioperative parameters, and postoperative complications were evaluated using univariate analysis.

Results: A total of 330 patients were studied. Anesthesia and surgical management were standardized. The reasons for conversion included intra myocardial left anterior descending artery and hemodynamic instability. The number of grafts performed in the Off pump group was lower compared to CPB and Off pump converted groups; 2.8 ± 0.9 , 3.6 ± 1 ; 3.4 ± 1 , $p=0.001$, respectively. Blood product transfusion rates, duration of intubation, prevalence of atrial fibrillation, and length of hospital stay are presented in the table.

Discussion: Blood product transfusion rates and hospital length of stay were increased in the Off pump converted group. Postoperative atrial fibrillation was more frequent in the On-pump group. The present study demonstrates that intraoperative conversion from elective off-pump surgery to on-pump surgery is associated with higher blood product transfusion rates and longer hospital length of stay.

References: None

Table 1

	Off Pump	Converted	On-pump	<i>P-value</i>
AGE years	62±10	63±10	64±4	0.1
SEX male (%)	84(76)	88(80)	94(85)	0.2
MI n(%)	50(45)	50(45)	39(35)	0.2
DM n(%)	33(30)	38(34)	42(38)	0.4
HTN n(%)	56(50)	65(60)	73(66)	0.09
CHF n(%)	8(7)	6(5)	2(2)	0.1
PVD n(%)	8(7)	13(12)	6(5)	0.2
% Change HB	29±11	28±10	26±8.6	0.1
%Change Cr	7.3±73	6.4±32	-0.8±26	0.4
Number of Grafts	2.8±0.9	3.4±1	3.6±1	0.001
Pump Run (minutes)		76±24	92±24	0.0001
X clamp (minutes)		59±18	71±20	0.0001
Peri PRBC	0.20±0.5	1.3±1.6	0.3±0.8	0.001
Peri FFP	0.09±0.5	0.40±1.2	0.1±0.5	0.0032
Peri Plt	0.09±0.7	0.7±2.3	0.04±0.2	0.0009
Intubation (hours)	7.3±4	13±19	7±5	0.0007
Length of stay : Days	7.4±4.2	9.4±7.3	6.7±2.3	0.0001
Post AFIB (%)	14(12.7)	22(20)	37(33)	0.04

MI: myocardial infarction; DM: diabetes mellitus; HTN: hypertension; CHF: congestive heart failure; PVD: peripheral vascular disease; % Change Hb: the perioperative change in Hemoglobin levels; % Change Cr: the perioperative change in creatinine; X clamp: cross clamp time; Peri PRBC: perioperative red blood cells administered; Peri FFP: perioperative fresh frozen plasma administered; Peri Plt: perioperative platelets administered; Post AFIB: the occurrence of new onset perioperative atrial fibrillation