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 Abstracttitel: CONSERVATIVE VERSUS LIBERAL INFUSION STRATEGIES IN OFF PUMP
 CORONARY ARTERY BYPASS (OPCAB) SURGERY

Purpose: The capacity of intravenous volume during the OPCAB surgery is rather changeable. The aim of the present study was to investigate the effect of two infusion strategies on hemodynamic parameters, extravascular lung water and lung compliance.

Methods: After the approval of the Ethics Committee 40 patients undergoing elective OPCAB surgery by one surgical team were randomly divided into two equal groups: "A" with "liberal" (23.1±4.2 ml/kg BW) infusion protocol (HES 6% 200/0.5 and 0.9% NaCl, 1:2) and "B" with "conservative" (6.5±1.8 ml/kg BW) infusion protocol (HES 6% 200/0.5). Demographic characteristics, preoperative risk factors, number of distal grafts (2.75±0.4), time of surgery and anaesthesiological technique were similar in both groups. In group "B" we used the low Trendelenburg (head-down) position for maintenance of cardiac output during displacement of the heart. Hemodynamic parameters: cardiac index (CI), systemic vascular resistance index (SVRI), global enddiastolic volume index (GEDI), intrathoracic blood volume index (ITBI) and extravascular lung water index (ELWI) were measured by transpulmonal thermodilution system "Picco Plus" (Pulsion, Germany). T-test was used for statistical analysis.

Results: There were no significant differences between the groups on inotropic support and CI, SVRI, ITBI, GEDI, ELWI during and after surgery. At the same time there were significant differences between groups on the level of hemoglobin (Hb), haematocrit (Ht), pulmonary compliance and duration of mechanical ventilation (MV) (Table).

	Group "A" (n = 20)	Group "B" (n = 20)	P
Duration of MV, min	542±324	266±30	p< 0.005
Compliance, cm H ₂ O	51±13.8	62±7.7	p< 0.005
Hb, g/dl	10.2±1.3	11.9±1.5	p< 0.005
Ht, %	29±4.1	34±5.1	p< 0.005

Conclusion: Our data suggest that head-down position during the displacement of the heart in OPCAB surgery allows using the "conservative" infusion strategy. The restriction of infusion volume during OPCAB surgery increases pulmonary compliance and decreases duration of postoperative MV.