

THE EFFECT OF VOLUME PER KG BODY WEIGHT HEMOFILTRATION DURING CARDIOPULMONARY BYPASS

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Objective: To evaluate the effect of volume per kg body weight hemofiltration during bypass on some events in adult patients who underwent heart surgery.

Design: Multi central observational study was the design.

Participants: The study included 800 patients classified into group 1 (1-20 ml/kg, n=385), group 2 (21-30 ml/kg, n=274) and group 3 (> 30 ml/kg, n=221) volume of hemofiltration.

Intervention: Conventional hemofiltration during cardiopulmonary bypass (CPB).

Measurements & Main Results: Monitors included hematocrit, urine output post operation drainage, blood transfusion, mean arterial pressure, extubation time, ICU and hospital stay. Urine output was lower in group 3 ($P<0.001$). Transfusion packed cell was higher during CPB ($P=0.03$) and after 24 h in ICU ($P=0.19$) in group 3. Hematocrit was higher after 24 h in ICU ($P=0.21$) and at ICU discharge ($P=0.004$) in group 3. ICU stay was longer in group 3 ($P<0.001$). pH in ICU showed acidosis in group 3 ($P<0.001$). More inotropic support was needed during CPB ($P=0.001$) and at first 6 h ICU ($P<0.001$) in group 3.

Conclusion: High volume hemofiltration during CPB leads to hemoconcentration, acidosis, early inotropic support and longer ICU stay. It seems there are benefits and loss together and do hemofiltration base on condition is more reasonable than base on volume.

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