[PP-190]

In patients undergoing cardiopulmonary bypass Is ultrafiltration useful?:A prospective, randomized study

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OBJECTIVE: Hemodilution during cardiopulmonary bypass, body fluid, an increase of the inflammatory response and organ dysfunction associated with a non-physiological process. Blood in patients with severe hemodilution during cardiopulmonary bypass, ultrafiltration can be applied in order to raise the level of blood hemoglobin. This study investigated whether cardiopulmonary bypass is beneficial in patients undergoing ultrafiltration.
METHODS: January 2007 - September 2007 due to pathology of mitral valve repair or mitral valve replacement (MVR) is applied, the high pulmonary artery pressure (PAP> 50mmHg) and 40 patients with elevated pulmonary capillary wedge pressure were included in the study. The patients were selected consecutively and randomized. Patients with isolated mitral valve pathology is not an indication for surgery, as well as aortic regurgitation, aortic stenosis and tricuspid insufficiency were included in the study, such as patients with additional pathology. 28 ° C hypothermia was achieved in all patients during surgery and blood cardioplegia was used. At the end of cardiopulmonary bypass, warm-up phase of the study group patients underwent conventional ultrafiltration. Each patient was to mean the withdrawal of 20ml/kg fluid
RESULTS: Ultrafiltrasyonun be applied during or after cardiopulmonary bypass patients, as shown in this study the burden of lung volume and reducing the postoperative inflammatory mediators say that the positive effects.
CONCLUSIONS: As a result of mitral valve pathology in patients with high-pressure on the existing pulmonary dysfunction, pulmonary dysfunction caused by a cardiopulmonary bypass during surgery is added to the situation, the healing process in post-operative patients, prolonging the duration of intensive care and hospital stays, additional medical expenses and can lead to morbidity and mortality after mitral valve surgery has become increasing rates. Ultrafiltrasyonun be applied during or after cardiopulmonary bypass patients, as shown in this study the burden of lung volume and reducing the postoperative inflammatory mediators say that the positive effects.

Keywords: Cardiopulmonary bypass, ultrafiltration