Introduction and Aim of work

Introduction

The most important limitation affecting the morbidity and even mortality of pediatric patients undergoing cardiac operations is the effect of cardiopulmonary bypass on the patient as a whole *(Ray et al., 1994)* .

What we learn over the next few years about how to reduce the effect of cardiopulmonary bypass on the inflammatory system , the coagulation system , the fibrinolytic system and the patient as a whole will provide the next major improvement in outcome benefit for patients *(Anthony et al., 1997)* .

Cardiopulmonary bypass is an essential procedure in open heart surgery , gravely it results in inappropriate activation of both the coagulation and fibrinolytic systems . Moreover , there is induction of hemodilution during cardiopulmonary bypass . Thus the coagulation system is endangered by both consumption and hemodilution of coagulation factors . Hence the marked blood loss *(Mossinger and Dietric, 1998)* .

Hemofiltration is a technique that removes water and some low molecular weight substances from plasma under an hydrostatic pressure gradient , it could be beneficial to pediatric patients undergoing cardiac operations *(Journois et al., 1994 ; Ross , 1998 ; Gurbuz et al.,1998)* .