Difference in efficacy of the cell saver in coronary bypass grafting surgery and cardiac valvular reoperations.

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摘要

Abstract

The efficacy of the Cell Saver in reducing transfusion requirements in patients who underwent either coronary artery bypass grafting (CABG) or reoperation for valvular replacement (Redo) were prospectively studied in 112 patients. In 41 patients, the Cell Saver was used from the beginning of the surgery (group 1), and in the other patients, no blood conservation techniques were undertaken (group 2). Perioperative hematological profile, postoperative chest tube drainage and transfusion requirements were examined in all patients. More red cells could be retrieved from the Redo patients than from the CABG patients ($p < 0.05$) during operation. The use of the Cell Saver in CABG patients reduced the total amount of blood transfusion required ($p < 0.001$). However, in the Redo patients, the use of the Cell Saver did not reduce the transfusion requirements during hospitalization. Furthermore, the amount of platelet concentrates transfused in the group 1 Redo patients was greater than the group 2 Redo patients. The use of the Cell Saver did not increase the postoperative chest tube drainage in either the CABG or the Redo patients. We conclude that the Cell Saver is useful in CABG patients, as far as the reduction of transfusion requirements is concerned; however, its efficacy in reducing transfusion requirements for Redo patients is questionable.