

Effectiveness of autologous fibrin tissue adhesive in reducing postoperative blood loss during total hip arthroplasty: a prospective randomised study of 100 cases.

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Abstract:

PURPOSE: To evaluate the effectiveness of autologous fibrin tissue adhesive (auto-FTA) in reducing blood loss during cementless total hip arthroplasty (THA). **METHODS:** From September 2000 to August 2001, 100 patients who predonated 400 ml of autologous blood were randomised to undergo either standard treatment with auto-FTA (auto-FTA group) or standard treatment alone (control group). The volume of postoperative blood loss and the decrease in haemoglobin level were measured. All patients were followed up for 3 years to evaluate the rate of bone ingrowth and heterotopic ossification. **RESULTS:** The mean postoperative blood loss was 580 ml (standard deviation [SD], 240 ml) in the auto-FTA group and 810 ml (SD, 341 ml) in the control group; the difference was significant (230 ml, $p < 0.001$). The decrease in haemoglobin concentration was 17 g/l (SD, 11 g/l) in the auto-FTA group and 22 g/l (SD, 12 g/l) in the control group. The difference was significant (5 g/l, $p = 0.03$). The percentage of total blood loss of >1200 ml in any single patient was significantly lower in the auto-FTA group (4%) than in the control group (20%) [$p = 0.01$]. **CONCLUSION:** Auto-FTA is a safe and effective means of reducing perioperative blood loss in THA.