Application of fibrin glue sealant after hepatectomy does not seem justified: results of a randomized study in 300 patients.

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Abstract:

OBJECTIVE: To evaluate the efficacy, amount of hemorrhage, biliary leakage, complications, and postoperative evolution after fibrin glue sealant application in patients undergoing liver resection.

SUMMARY BACKGROUND DATA: Fibrin sealants have become popular as a means of improving perioperative hemostasis and reducing biliary leakage after liver surgery. However, trials regarding its use in liver surgery remain limited and of poor methodologic quality.

PATIENTS AND METHODS: A total of 300 patients undergoing hepatic resection were randomly assigned to fibrin glue application or control groups. Characteristics and debit of drainage and postoperative complications were evaluated. The amount of blood loss, measurements of hematologic parameters liver test, and postoperative evolution (particularly involving biliary fistula and morbidity) was also recorded.

RESULTS: Postoperatively, no differences were observed in the amount of transfusion (0.15 +/- 0.66 vs. 0.17 +/- 0.63 PRCU; P = 0.7234) or in the patients that required transfusion (18% vs. 12%; P = 0.2), respectively, for the fibrin glue or control group. There were no differences in overall drainage volumes (1180 +/- 2528 vs. 960 +/- 1253 mL) or in days of postoperative drainage (7.9 +/- 5 vs. 7.1 +/- 4.7). Incidence of biliary fistula was similar in the fibrin glue and control groups, (10% vs. 11%). There were no differences regarding postoperative morbidity between groups (23% vs.

23%; P = 1).

CONCLUSIONS: Application of fibrin sealant in the raw surface of the liver does not seem justified. Blood loss, transfusion, incidence of biliary fistula, and outcome are comparable to patients without fibrin glue. Therefore, discontinuation of routine use of fibrin sealant would result in significant cost saving.