# Effectiveness of a new carrier-bound fibrin sealant versus argon beamer as haemostatic agent during liver resection: A randomised prospective trial.

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## Abstract:

Background and aims: A new carrier-bound fibrin sealant, TachoSil, is expected to be efficacious and safe as a haemostatic treatment in hepatic resection. Design: A prospective, randomised, open and controlled multicentre trial with intraoperative as well as postoperative assessment of efficacy and a 1 month follow-up period. Setting: Tertiary care centres. Patients/methods: One hundred and twenty-one patients requiring secondary haemostasis during planned liver resection. Patients with coagulation disorders and patients with persistent major bleeding after primary haemostatic measures were excluded. Intervention: Application of either carrier-bound fibrin sealant (n=59) or argon beamer (argon beam coagulator) (n=62) as secondary haemostatic treatment. Main outcome measure: Time to intraoperative haemostasis. Results: There was a significant superiority of TachoSil over argon beamer with regard to time to haemostasis (3.9 min, median 3.0, range 3-20 min vs 6.3 min, median 4.0, range 3-39 min) (P=0.0007). Haemoglobin concentration of drainage fluid was significantly lower on day 2 after surgery in TachoSil patients (1.1 mmol/l) than in argon beamer patients (2.3 mmol/l) (P=0.012). Overall, the frequency and causality of adverse events did not differ between the two treatment groups. Conclusion: TachoSil is superior to argon beamer in obtaining effective and fast intraoperative haemostasis. The safety data show TachoSil to be tolerable and safe for haemostatic treatment in liver resection. © Springer-Verlag 2005.