

Fibrin sealant to prevent postoperative pancreatic fistula after left pancreatectomy: Systematic review and meta-analysis.

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Abstract:

Introduction: Postoperative pancreatic fistula (POPF) is a major complication of left pancreatectomy (LP) associated with increased risk of mortality. Fibrin sealants have been used in attempts to reduce POPF. Aims: To conduct a meta-analysis of randomized clinical trials (RCTs) of fibrin sealants to prevent POPF following LP. Materials & methods: Major databases were searched from 1966-2016 and RCTs of fibrin vs no sealants identified. The primary end point was POPF (International Pancreatic Fistula Study Group definition). Secondary outcomes were postoperative complications, interventions and hospital stay. The pooled odds ratios (OR) or weighted mean differences (WMD) and 95% confidence intervals (95%CI) were calculated with fixed-effects or random-effects models. Results: Four RCTs with 747 patients were included. Use of fibrin sealants did not alter POPF (OR=0.96, 95%CI: 0.71-1.30; P=0.80), clinically relevant POPF (OR=0.97, 95%CI: 0.67-1.40; P=0.88), postoperative haemorrhage (OR=0.99, 95%CI: 0.36-2.75; P=0.99), intra-abdominal collection (OR=1.42, 95%CI: 0.88-2.31; P=0.15), intestinal obstruction (OR=1.17, 95%CI: 0.35-3.86; P=0.80), overall morbidity (OR=1.28, 95%CI: 0.89-1.84; P=0.18), radiologic intervention (OR=1.01, 95%CI: 0.50-2.03; P=0.99) or postoperative hospital stay (WMD=0.43, 95%CI: -0.87-1.72; P=0.52). Conclusion: The use of fibrin sealants does not reduce POPF or other post-operative complications following LP, and cannot be recommended.