

Systematic review and meta-analysis of fibrin sealants for patients undergoing pancreatic resection. [Review]

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Abstract:

INTRODUCTION: Post-operative pancreatic fistula (POPF) is a common complication after partial pancreatic resection, and is associated with increased rates of sepsis, mortality and costs. The role of fibrin sealants in decreasing the risk of POPF remains debatable. The aim of this study was to evaluate the literature regarding the effectiveness of fibrin sealants in pancreatic surgery.

METHODS: A comprehensive database search was conducted. Only randomized controlled trials comparing fibrin sealants with standard care were included. A meta-analysis regarding POPF, intra-abdominal collections, post-operative haemorrhage, pancreatitis and wound infections was performed according to the recommendations of the Cochrane collaboration.

RESULTS: Seven studies were included, accounting for 897 patients. Compared with controls, patients receiving fibrin sealants had a pooled odds ratio (OR) of developing a POPF of 0.83 [95% confidence interval (CI): 0.6-1.14], $P = 0.245$. There was a trend towards a reduction in post-operative haemorrhage (OR = 0.43 (95%CI: 0.18-1.0), $P = 0.05$) and intra-abdominal collections (OR = 0.52 (95%CI: 0.25-1.06), $P = 0.073$) in those patients receiving fibrin sealants. No difference was observed in terms of mortality, wound infections, re-interventions or hospital stay.

CONCLUSION: On the basis of these results, fibrin sealants cannot be recommended for routine clinical use in the setting of pancreatic resection.

