

Fibrin sealants and topical agents in hepatobiliary and pancreatic surgery: a critical appraisal.

Authors: Hanna E.M., Martinie J.B., Swan R.Z., Iannitti D.A.

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Abstract:

Introduction: Fibrin sealants and topical hemostatic agents have been used extensively in hepatobiliary and pancreatic (HPB) surgery to promote coagulation and clot formation decreasing the need for allogeneic blood transfusion and to act as tissue sealants, ideally preventing biliary, enteric, and pancreatic leaks.

Results: Current literature has demonstrated some favorable outcomes using many different products for application in the field of HPB surgery. However, critical findings exist demonstrating lack of reproducible efficacy or benefit. In all, many clinical trials have demonstrated effectiveness of fibrin sealants and other agents at reducing the need for intraoperative and postoperative blood transfusion. Ability to effectively seal tissues providing biliostatic effect or preventing postoperative fistula formation remains debated as definitive evidence is lacking.

Conclusions: In the following invited review, we discuss current literature describing the use of topical agents and fibrin sealants in liver and pancreas surgery. We summarize major contemporary clinical trials and their findings regarding the use of these agents in HPB surgery and provide evidence from the preclinical literature as to the translation of these products into the clinical arena.

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