

# **The use of tissue sealant to prevent fistula formation after laparoscopic distal pancreatectomy.**

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Publication Date: 2007

## **Abstract:**

**BACKGROUND:** Pancreatic fistula occurs in about 20% of patients undergoing laparoscopic pancreatectomy. A variety of techniques have been described to decrease this rate, with limited success. Fibrin sealants are products that promote the adhesion of tissue surfaces to each other. This report demonstrates the use of fibrin sealants to decrease the incidence of pancreatic fistula.

**METHODS:** After completion of the laparoscopic or hand-assisted distal pancreatectomy, 5 ml of fibrin sealant (Tisseal; Baxter Healthcare, One Baxter Parkway, Deerfield, IL, USA) is applied to the cut edge of the pancreatic remnant. Omentum, which has been dissected to expose the raw surface, is then applied over the pancreatic remnant and fastened to the cut edge by the fibrin sealant. A drain is placed over the omentum in the left upper quadrant. Postoperative computed tomography (CT) scans are obtained on postoperative day 3 to determine whether any fluid collections are present. A pancreatic fistula is defined as any amylase-rich fluid found in the drain or any juxtaposed fluid collection next to the pancreatic remnant on postoperative day 3.

**RESULTS:** A total of eight patients underwent laparoscopic distal pancreatectomy with the use of fibrin sealant. These were compared with the previous 13 patients who underwent laparoscopic distal pancreatectomy without fibrin sealant. No patients in the fibrin sealant group experienced pancreatic fistula, as compared with three patients (23%) in the no sealant group.

CONCLUSIONS: Although this series was small, it does suggest that the use of fibrin sealant may reduce the incidence of postoperative pancreatic fistula formation after laparoscopic distal pancreatectomy.