Fibrin glue as a sealant for high-risk anastomosis in surgery for morbid obesity.

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Abstract:

BACKGROUND: Fibrin sealants promote hemostasis and wound healing. Complex revisional surgery is performed for morbid obesity, and high-risk patients undergo weight loss surgery routinely. Fibrin sealant, Tisseel, was used by one surgeon on 120 consecutive patients at the gastrojejunal anastomosis in Roux-en-Y gastric bypass (RYGBP). We hypothesized that the application of fibrin sealant would decrease anastomotic leaks.

METHODS: One surgeon (Surgeon A) used fibrin sealant for 120 consecutive patients, while two other surgeons (Surgeons B & C) served as controls and did not use fibrin glue for their last 120 patients. Surgeon A did not use fibrin glue in 120 patients to serve as an internal control. All 480 patients underwent a RYGBP. Fibrin glue was applied at the gastrojejunal anastomosis.

RESULTS: The fibrin sealant group did not have any documented leaks on the previous 120 patients, while 5 patients with Surgeon B, 2 patients with Surgeon C and 1 patient with Surgeon A without fibrin sealant experienced enteric leaks requiring re-operation, drainage, or long-term total parenteral nutrition (N = 480 total patients).

CONCLUSIONS: Fibrin sealant may be useful in preventing leaks and promoting healing of the "high risk" anastomosis during complex gastrointestinal surgery. While the cost of fibrin glue is to be considered, re-operation and management of subsequent enterocutanous fistulas or anastomotic

strictures may be more costly than routine use for high-risk morbidly obese patients.