Fibrin sealant associated with increased body temperature and leukocytosis after laparoscopic gastric bypass.

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Publication Date: 2010

Abstract:

BACKGROUND: Fibrin sealants (FSs) have been used in both open and laparoscopic bariatric surgery to decrease the anastomotic leak rate; however, conclusive evidence to recommend routine use is still lacking. We studied FS use and its effect on the clinical inflammatory response after laparoscopic Roux-en-Y gastric bypass.

METHODS: Of 474 consecutive patients scheduled to undergo laparoscopic Roux-en-Y gastric bypass, 158 were assigned to group 1 (no FS used), 158 were assigned to group 2 (FS used at the gastrojejunal anastomosis and gastric staple line), and 158 patients were assigned to group 3 (reverting back to no FS use).

RESULTS: The mean age of all patients was 40.7 years (range 18-64), and the mean body mass index was 51.9 kg/m(2) (range 36.7-107). The FS group had a statistically significant higher pulse rate (P = .001), recorded temperature (P = .001), and white blood cell count (P = .001) in the first 48 hours after surgery. The overall leak rate was 4.2% (20 of 474 cases). The mortality rate was 0% in all 3 groups. FS use had no effect on the anastomosis or staple line leak rate. An evaluation for fever of unknown origin was required in 6 patients in the FS group with no evidence of leak. Of these 6 patients, 4 had no evidence of leak on upper gastrointestinal series or computed tomography and 2 underwent surgical exploration with a subphrenic collection found but no evidence of leak intraoperatively (negative findings for pneumatic and methylene blue tests).

CONCLUSION: FS use in laparoscopic Roux-en-Y gastric bypass is associated with an increased clinical inflammatory response mimicking anastomotic leak. FS had no effect on the anastomotic leak rate.