Prospective and randomized comparison of two techniques of staple line reinforcement during open Roux-en-Y gastric bypass: oversewing and bioabsorbable Seamguard.

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Abstract:

AIMS: Surgical staple line dehiscence usually leads to severe complications. Several techniques and materials have been used to reinforce this stapling and thus reduce the related complications. The objective was to compare safety of two types of anastomotic reinforcement in open gastric bypass.

METHODS: A prospective, randomized study comparing an extraluminal suture, fibrin glue, and a nonpermanent buttressing material, Seamguard, for staple line reinforcement. Fibrin glue was excluded from the study and analysis after two leaks, requiring surgical reintervention, antibiotic therapy, and prolonged patient hospitalization.

RESULTS: Twenty patients were assigned to the suture and Seamguard reinforcement groups. The groups were similar in terms of preoperative characteristics. No staple line dehiscence occurred in the two groups, whereas two cases of dehiscence occurred in the fibrin glue group. No mortality occurred and surgical time was statistically similar for both techniques. Seamguard made the surgery more expensive.

CONCLUSION: In our service, staple line reinforcement in open bariatric surgery with oversewing or Seamguard was considered to be safe. Seamguard application was considered to be easier than

oversewing, but more expensive.