

Comparing fibrin sealant with staples for mesh fixation in laparoscopic transabdominal hernia repair: a case control-study.

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Publication Date: 2008

Abstract:

BACKGROUND: Laparoscopic hernia repair is not as popular as cholecystectomy. We have performed more than 3,000 laparoscopic herniorrhaphies using the trans-abdominal (TAPP) technique. To prevent recurrences we fix the polypropylene mesh with staples. The use of fibrin glue for graft fixation is a possible alternative.

METHODS: We have performed 3,130 laparoscopic hernia repairs over 14 years. For mesh fixation we used titanium clips and observed a small number of complications. In July 2003 we started using fibrin glue (Tissucol(R)). The purpose of this retrospective longitudinal study was to evaluate if the use of fibrin sealant was as safe and effective as conventional stapling and if there were differences in post-operative pain, complications and recurrences.

RESULTS: From July 2003 to June 2006 we performed 823 laparoscopic herniorrhaphies. Fibrin glue (Tissucol(R)) was used in 88 cases. Two homogeneous groups of 68 patients (83 cases) treated with fibrin glue and 68 patients (87 cases) where the mesh was fixed with staples, were compared. Patients with relevant associated diseases or large inguino-scrotal hernias were excluded. Operative times were longer in the group treated with fibrin glue with a mean of 35 minutes (range 22-65 mins) compared to the group treated with staples (25 minutes, range 14-50 mins). The time of hospital stay was the same (24 hours). Post-operative complications, that were

more frequent in the stapled group, included trocar site pain, hematomas, intra-operative bleedings and incisional hernias. No significant difference was observed concerning seromas, chronic pain and recurrence rate.

CONCLUSIONS: Less post-operative pain, and a faster return to usual activities are the main advantages of laparoscopic repair compared to the traditional approach. The use of fibrin sealant reduces in our experience the risk of post- and intra-operative complications such as bleeding and incisional hernia; recurrence rates are similar, but the operative time is longer.