

Randomized clinical trial of fibrin glue versus tacked fixation in laparoscopic groin hernia repair.[Erratum appears in Surg Endosc. 2013 Aug;27(8):2734]

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Abstract:

BACKGROUND: Preliminary studies have indicated clinical advantages of mesh fixation using fibrin glue in transabdominal preperitoneal groin hernia repair (TAPP) compared with tack fixation. The aim of this randomized double-blinded, controlled, clinical trial is to compare fibrin glue with tacks fixation of mesh during TAPP.

METHODS: One hundred and twelve men with unilateral inguinal hernia were enrolled. Primary outcome was pain during coughing on postoperative day 1. Secondary outcomes were postoperative scores of pain at rest, discomfort, and fatigue (day 1 and cumulated day 0-3), incidence of moderate/severe nausea and/or vomiting, foreign-body sensation, and recurrence after 6 months. Outcome measures were assessed by visual analogue scale (VAS, 0-100 mm), verbal rating scale (no, light, moderate or severe) and numerical rating scales (NRS, 1-10).

RESULTS: One hundred patients were available for analysis. The fibrin group (n = 50) had significantly less pain during coughing on day 1 compared with the tacks group (n = 50) [median 23 (range 0-80) vs 35 (2-100) mm] (p = 0.020). Moreover, day 1 scores and all cumulated scores of pain during rest, discomfort, and fatigue were significantly lower in the fibrin group compared with the tacks group (all p-values <= 0.02). There was no significant difference in the incidence of nausea and/or vomiting (p > 0.05) or recurrence (fibrin glue n = 2, tacks n = 0, p = 0.241). Incidence

of foreign-body sensation was significantly lower in the fibrin group at 1 month ($p = 0.006$).

CONCLUSIONS: Fibrin glue compared with tacks fixation improved the early postoperative outcome after TAPP. The trial was registered at clinicaltrials.gov NCT01000116.