Fibrin sealant for mesh fixation in laparoscopic groin hernia repair does not increase long-term recurrence.

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Abstract:

Background: Methods of groin hernia repair include laparoscopic techniques using tissue-penetrating mesh fixation or non-penetrating fixation. Concerns regarding hernia repair include postoperative chronic pain, sexual dysfunction, and recurrence. Earlier estimations of recurrence rates have largely been based on nationwide databases, where reoperation rates have been used as a surrogate measure for recurrence, which may underestimate the true recurrence rates. The aim of this study was to evaluate long-term recurrence in patients who had undergone transabdominal pre-peritoneal (TAPP) laparoscopic groin hernia repair using either fibrin sealant or tacks for mesh fixation. Methods: This study used data from the Danish Hernia Database to create the following cohort: All patients operated laparoscopically for primary groin hernia with a TAPP procedure using fibrin sealant for mesh fixation. These patients were matched 1:2 with patients, where the mesh was fixated using tacks. A validated questionnaire was sent to all included patients to determine recurrence, which was defined as reoperation or clinical diagnosis of recurrence by a physician. Follow-up was from index operation to either reoperation date, date of clinical recurrence diagnosis, or response date. Results: A total of 2273 persons (n = 2340 groins) were included, of which 1535 returned the questionnaire, resulting in a response rate of 66.2 % with a median follow-up time of 31 months (range 0-62). Among these, 114 (7.4 %) recurrences were found, of which 30 (5.8 %) were in the fibrin sealant group and 84 (8.3 %) in the tacks group (p = 0.084). The Cox regression analysis found no difference in recurrence with the use of tacks compared to fibrin sealant (hazard ratio 0.8) [95 % CI (0.5-1.2)]. Conclusion: We found no significant difference in

long-term reoperation rates and clinical recurrences in patients undergoing TAPP repair with meshes fixated with fibrin sealant compared with tacks.