Lower reoperation rates with the use of fibrin sealant versus tacks for mesh fixation.

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Abstract:

Background Groin hernia repair may be associated with long-term complications such as chronic pain, believed to result from damage to regional nerves by tissue penetrating mesh fixation. Studies have shown that mesh fixation with fibrin sealant reduces the risk of these long-term complications, but data on recurrence and reoperation rates after the use of fibrin sealant compared with tacks are not available. This study aimed to determine whether fibrin sealant is a safe and feasible alternative to tacks with regard to reoperation rates after laparoscopic groin hernia repair. Methods The current study compared reoperation rates after laparoscopic groin hernia repair between fibrin sealant and tacks used for mesh fixation. The study used data collected prospectively from The National Danish Hernia Database and analyzed 8, 314 laparoscopic groin hernia repairs for reoperation rates. Mesh fixation was performed with fibrin sealant (n = 784) or tacks (n = 7, 530). Results The findings showed a significantly lower reoperation rate for the fibrin sealant than for the tacks (0.89 vs 2.94 %, p = 0.031). The median follow-up period was 17 months (range, 0-44 months) for the fibrin sealant group and 21 months (range, 0-44 months) for the tacks group. Conclusions Fibrin sealant was superior to tacks for mesh fixation in laparoscopic groin hernia repair with regard to reoperation rates. The study could not differentiate between different hernia defect sizes, and future studies should therefore explore whether the superior effect of fibrin sealant applies for all hernia types and sizes.