

Use of Tissue Adhesive Versus Staples for Mesh Fixation in Laparoscopic TAPP Inguinal Hernioplasty

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Abstract

Background: There is a remaining high debate, about mesh fixation involved in laparoscopic inguinal hernia repair (LIHR) that is largely influenced by the individual preferences of each surgeon. In this research study, a comparison is done between mesh fixation in laparoscopic transabdominal preperitoneal (TAPP) using either staples or tissue adhesive (Amcrylate).

Methods: This was a prospective randomized controlled study that was applied to 100 patients having an inguinal hernia. Patients included were randomly sorted into two groups based on the closed envelope method; Group I, involved 50 patients previously subjected to laparoscopic TAPP, and tissue adhesive was used for mesh fixation, and GroupII, involved 50 patients subjected to laparoscopic TAPP, and tackers were used for fixation of mesh.

Results: We found a difference of statistical significance among the studied groups regarding the assessed VAS score on the 1st day ($P=0.018$), 10th day ($P<0.001$), and 30th days ($P<0.001$), post-operative with a difference that is not statistically significant pre-operative. The statistically analyzed difference among the studied groups was not significant regarding Carolina's Comfort Scale after 6 months, Sensation of mesh, limitation of movement, recurrence, and complications.

Conclusion: Mesh fixation using tissue adhesive is preferable to staples because of its association with less post-surgery accompanied pain, earlier return to work, no increase in prompt recurrence rates and complications, better chronic pain experience, and comparable life quality.

Key words: laparoscopic inguinal hernia repair, mesh fixation