

Influence of Mesh Fixation on the Development of Postoperative Pain after Laparoscopic Inguinal Hernia Repair: A Single Surgeon Experience

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Abstract

Objective: Primary aim of the present article was to determine the relationship between mesh fixation methods and the occurrence of postoperative pain after laparoscopic inguinal hernia repair.

Materials and methods: 101 patients diagnosed with inguinal hernia benefited from elective laparoscopic treatment of the abdominal wall defect. Follow up was realized at one and three months after surgical intervention. The followed details contained clinical, surgical and pain-related data.

Results: Multivariable analysis resulted young adults (OR=4.226; p=0.0467), recurrent hernia (OR=4.862; p=0.0415) and use of fixation requiring surgical mesh (OR=4.226; p=0.0467) as significant risk factors in the development of chronic postoperative pain. During the follow up period, patients who benefitted of mesh fixation complained about significantly higher pain sensation (pain index at one month: SG=10.27; CG=5.07; p=0.0080; pain index at three months: SG=5.02; CG=1.42; p=0.0406). Concerning chronic postoperative pain syndrome, six patients from SG (12.76%) and only a single patient from CG complained after three months about pain index greater than 18.5 points, concluding that mesh fixation significantly increases the possibility of chronic postoperative pain syndrome (p=0.0455).

Conclusion: Mesh fixation methods during laparoscopic inguinal hernia repair seem to contribute to the development of chronic postoperative pain. Avoiding traumatizing mesh fixation methods could be a suitable option for surgeons.

Key words: laparoscopic, mesh fixation, Self-adhering, postoperative pain, life quality