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PROSPECTIVE COMPARATIVE STUDY BETWEEN USING SELF-GRIPPING MESHES AND SUTURED MESHES DURING OPEN INGUINAL HERNIOPLASTY

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BACKGROUND

Tension free hernia repair which described firstly by Lichtenstein [1, 2] is the golden standard technique for open inguinal hernioplasty because this approach has a significantly less recurrence rate of 0.3% to 2.2% in comparison to 4.4% to 17% for classic herniorrhaphies. [3, 4] In this procedure, the surgeon reduces the hernia sac, inserts a prosthetic mesh to strengthen the inguinal canal, and fixates it with sutures to the pubic tubercle and inguinal ligament. [1] While there is a difference in applying the same procedure by various methods, our study was designed to acknowledge the results of the difference between both methods in practice. Prospective clinical trial has been used to compare and evaluate two different fixation methods during open inguinal hernia repair by Lichtenstein.

The purpose

of this study is to compare between sutured and sutureless methods in mesh fixation for open inguinal hernia repair by Lichtenstein technique.

MATERIALS AND METHODS

We conducted this clinical trial at the clinical federal hospital№ 85, Moscow upon 100 patients with prospective study for patients operated by our team. Patients were divided into 2 groups: group A -patients operated by Lichtenstein technique using self-gripping meshes and group B- patients were operated by Lichtenstein technique with fixation of the mesh by sutures.

In the first group the average of age was 54.6 years, for 46 male patients and 4 female patients. From them 34 patients with diagnosis left sided inguinal hernia and 16 of them with right sided inguinal hernia. The average time of operation in this group was 28.1

minutes with average of hospital stay 4.6 days. While in the second group median age was 54.2 years, for 47 male patients and 3 female patients. from them 28 patients with diagnosis left sided inguinal hernia and 22 patients with diagnosis right sided inguinal hernia. The average time of operation in this group was 46.4 minutes with average of hospital stay 4.6 days Postoperatively.

RESULTS

In group A we found in post-operative period 4 patients with post-operative pain which was resistant to analgesics and all other patients of this group the pain decreased gradually with the NSAIDs. While in group B we found in post-operative period 44 patients with post-operative pain resisting for analgesics and others the pain decreased gradually with the help of NSAIDs. Follow up after 6 months. In group A — all patients were satisfactory without any complications, without any recurrence. While in group B we found chronic pain in 5 patients, seroma in 2 patients and 43 patients without any other complication and also without recurrences. Using self-fixing meshes significantly reduces the time of operation and postoperative pain with approximately reducing complications within 6 months in comparison with sutured mesh during open inguinal hernioplasty by Lichtenstein. The hospital stay in both groups is remaining the same.

CONCLUSION

Using self-fixing mesh is optimal choice when compared to sutured mesh and this can result in using it as a modification of Lichtenstein technique which will get to our main target of improving the life quality of patient.

Keywords:

Inguinal hernia, fixation, open inguinal hernia repair, self-gripping mesh, sutured mesh.