

FREQUENCY OF COMPLICATIONS FOLLOWING LICHTENSTEIN REPAIR OF INGUINAL HERNIA

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ABSTRACT

Background: Inguinal hernia is the most frequent variety of hernia. Lichtenstein repair of inguinal hernia is considered the gold standard treatment, however many surgeons in our locality are reluctant to perform this procedure due to fear of complications. This study is aimed at determining the frequency of complications following Lichtenstein repair of inguinal hernia in our hospital.

Material & Methods: This descriptive study was conducted in Department of Surgery at MM Teaching Hospital, D.I. Khan, from October 1, 2012 to September 30, 2013. All the patients were followed up for 1 year. All the patients aged 18 to 70 years with inguinal hernia, either primary or recurrent were included in this study. Patients with obstructed or strangulated inguinal hernia, patients with cirrhosis/ ascites and patients too feeble to withstand surgery were excluded from the study. Postoperative complications and recurrence rates were noted.

Results: A total of 50 patients were studied. One patient (2%) developed superficial wound infection while two (4%) patients were affected by scrotal hematoma. All the complications were treated conservatively. No case of recurrence was noted during one year follow-up.

Conclusion: Lichtenstein repair of inguinal hernia is a simple and safe procedure and should be preferred over non-mesh repairs in patients with inguinal hernia.

KEY WORDS: Inguinal hernia; Mesh repair; Lichtenstein.

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INTRODUCTION

A hernia is a protrusion of a viscous or part of a viscous through an abnormal opening in the walls of its containing cavity¹. The most frequent variety of hernia is inguinal hernia,¹ where there is abnormal protrusion of abdominal contents through the inguinal region. It is divided into direct and indirect varieties¹. Inguinal hernia can occur at any age and exhibits a marked male predominance (20:1).^{1,2}

It is customary to operate on most inguinal hernias unless patient is inactive or terminally ill and in case there is a trivial direct inguinal hernia in elderly.³ Bilateral hernias may be repaired separately.⁴

There are different techniques for repair of inguinal hernia but Lichtenstein repair is considered as a gold standard nowadays.^{5,6} Lichtenstein repair requires application of mesh on the posterior wall of

inguinal canal thus strengthening it without applying tension on it. Lichtenstein (mesh) repair of inguinal hernia has been associated with several advantages such as low postoperative pain, rapid recovery and low recurrence rates,⁷⁻⁹ whereas wound infection, scrotal hematoma, wound hematoma, seroma formation, chronic groin pain and recurrence are few complications that can affect patients following Lichtenstein repair of inguinal hernia.

This study was carried out to evaluate the frequency of complications following Lichtenstein repair in our hospital.

MATERIAL AND METHODS

This descriptive cross-sectional study was performed prospectively in general surgery department of Mufti Mahmood Memorial Teaching Hospital, Dera Ismail Khan from October 1, 2012 to September 30, 2013. All the patients aged 18 to 70 years with inguinal hernia, either primary or recurrent were included in this study. Patients with obstructed or strangulated inguinal hernia, patients with cirrhosis/ ascites and patients too feeble to withstand surgery were excluded from the study. Co-amoxiclav 1.2gm

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and Ceftriaxone 1 gm injections were given at the time of induction of anesthesia and continued for next 24 hours as BD dose. The procedure was performed under spinal anesthesia in 45 patients (90%) and under general anesthesia in 5 patients (10%). An 11 x 6 cm polypropylene mesh was used and tailored according to the size of defect in posterior wall of inguinal canal. Suction drain was placed in only two patients that were obese. Patients were discharged on second postoperative day. Patients were followed up postoperatively at 1 week, 1 month, 6 months and 1 year. Data collection was done on predesigned proforma and frequency of complications was determined.

RESULTS

In all, 50 patients were included in the study. The mean age of patients was 37 years (range 18-70 years). All patients were male except one female (49:1). Out of these, 37 patients (74%) including the female patient had indirect inguinal hernia while 13 patients (26%) had direct inguinal hernia. Amongst all the patients, 3 (6%) had recurrent inguinal hernia following some form of non-mesh repair done earlier, while, rest of the patients were having primary inguinal hernia. 27 patients (54%) had right sided inguinal hernia while 21 patients (42%) had left sided hernia and two patients (4%) had bilateral hernia. Those with bilateral hernia were operated for only one side (more symptomatic) during the study period. All the patients were discharged on second postoperative day. Three patients (6%) developed complications. Superficial wound infection affected one patient (2%), while scrotal hematoma appeared in two patients (4%). All the complications were treated conservatively. All the patients had very good mobility after surgery as pain was less. No patient with wound hematoma, chronic groin pain and recurrence were noted.

DISCUSSION

Lichtenstein repair is a simple operation. It is associated with excellent outcome and results in less postoperative pain, early return to normal activities and a low recurrence rate when compared with suture repairs.

In our study, the recurrence rate over a period of one year follow-up was 0%. This result matches several national and international studies.^{5,7-12} Hadi et al¹³ and Aslam et al¹⁵ have shown 2.94% and 5% recurrence rates that are quite high.^{13,15}

Only one patient (2%) developed wound infection postoperatively that was superficial. Lot of emphasis was made on sterilization and antibiotic prophylaxis in our operations and thus a low infection rate was achieved. Different studies have shown different rates of wound infection. Our result is comparable with 1.2% infection rate detected by

Khan et al¹⁴, 2.08% by Ahmed et al⁷, 1% by Ahmed et al¹¹ and 3% by Najamulhaq et al¹⁶. Majeed et al⁸ and Rahman et al¹² have found no case of postoperative wound infection in their studies. On the other hand, Nadir et al⁵, Hadi et al¹³ and Saeed et al¹⁰ have demonstrated 7.1%, 7.4% and 8.6% infection rates respectively, that are too high.

Scrotal hematoma was seen in two patients (4%). Ahmed et al¹¹, Khan et al¹⁴ and Najamulhaq et al¹⁶ observed 1.5%, 1.7% and 2% cases of scrotal hematoma respectively, while Raza et al¹⁸, Ahmed et al⁷ and Saeed et al¹⁰ showed 6.2%, 8.33% and 8.6% patients developing scrotal hematoma respectively. The patients that developed scrotal hematoma did not have suction drain but they responded well to conservative treatment employing scrotal support, oral antibiotics and NSAIDs. Care at hemostasis has an important role in preventing wound and scrotal hematoma formation and this in turn prevents wound infection.

Chronic groin pain was not seen in our patients. This complication can be well avoided by keeping mesh in a relaxed manner⁵ and by proper identification and protection of ilioinguinal, iliohypogastric and genital nerves during operation.^{5,17}

CONCLUSION

Lichtenstein repair of inguinal hernia is a simple and safe procedure with an extremely low rate of complications. It is to be preferred over non-mesh repair in patients with inguinal hernia.

Meticulous surgical technique, care at sterilization, control of hemostasis and proper use of antibiotics play an important role in avoiding postoperative complications.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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None declared.