

ORIGINAL ARTICLE

Assessment of patients undergoing hernia surgery

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ABSTRACT:

Background: Inguinal hernioplasty is the most commonly performed surgical procedure in abdominal wall surgery. The present study was conducted to assess patients undergoing hernia surgery. Materials & Methods: 50 patients underwent hernioplasty using the open technique of both genders. Location of inguinal hernia, length of hospital stay, complications etc. was recorded. Results: Out of 50 patients, males were 35 (70%) and females were 15 (30%). The mean operative time in males was 52.3 minutes and in females was 54.6 minutes. The mean hospital stay was 3.6 days in males and 3.4 days in females. Type was direct seen in 25 males and 6 females and indirect in 10 males and 4 females. The difference was significant (P< 0.05). Complications were inguinal cyst in 2, pain in 4, seroma in 2, infection in 4, bleeding in 2 and fever in 8 cases. The difference was significant (P< 0.05). Conclusion: Authors found that hernioplasty is commonly performed surgery. Common complications were inguinal cyst, pain, seroma, infection, bleeding and fever.

Key words: Hernia, liver cirrhosis, pain

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INTRODUCTION

Inguinal hernioplasty is the most commonly performed surgical procedure in abdominal wall surgery. Inguinal hernia repair is one of the most commonly performed surgeries worldwide. Annually, more than 20 million patients undergo this procedure. There is a higher prevalence of right unilateral hernia and in both adults and children, the indirect form is more common than the direct form. There is a predominance of males, and the delay in performing the surgery may progress to incarcerated hernia, increasing the rate of complications. Several surgical techniques have been described in the literature for the correction of inguinal hernia. Several risk factors influence the outcome of the long-term surgery, which can be modifiable or not modifiable. The first group includes obesity, smoking and poorly controlled hypertension. In this last set of comorbidities, liver cirrhosis, age, pro-inflammatory medical conditions, peripheral vascular disease and anxious depressive disorders stand out. Surgical treatment is often tailored to patient-related factors, hernia characteristics, surgeons' experience/preference, healthcare resources, as well as

focus on improved outcomes such as low recurrence rate and post-operative pain, fast recovery, and cost effectiveness. Although inguinal pure-tissue hernia repair was first established in the 1500s, newer techniques and variants have been and are continuously being developed to this day. In the 1960s, the use of mesh in inguinal hernia repair was popularized due to promising long-term decrease in recurrence rates. The present study was conducted to assess patients undergoing hernia surgery.

MATERIALS & METHODS

The present study comprised of 50 patients underwent hernioplasty of both genders. All were informed regarding the study and their written consent was obtained.

Patients' information such as name, age, gender etc. was recorded. All underwent using the open technique of hernia surgery. All cases were performed by single surgeon. Location of inguinal hernia, length of hospital stay, complications etc. was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Table with 3 columns: Gender, Males, Females. Row 1: Total- 50. Row 2: Number, 35 (70%), 15 (30%).

Table I shows that out of 50 patients, males were 35 (70%) and females were 15 (30%).

Table II Assessment of parameters

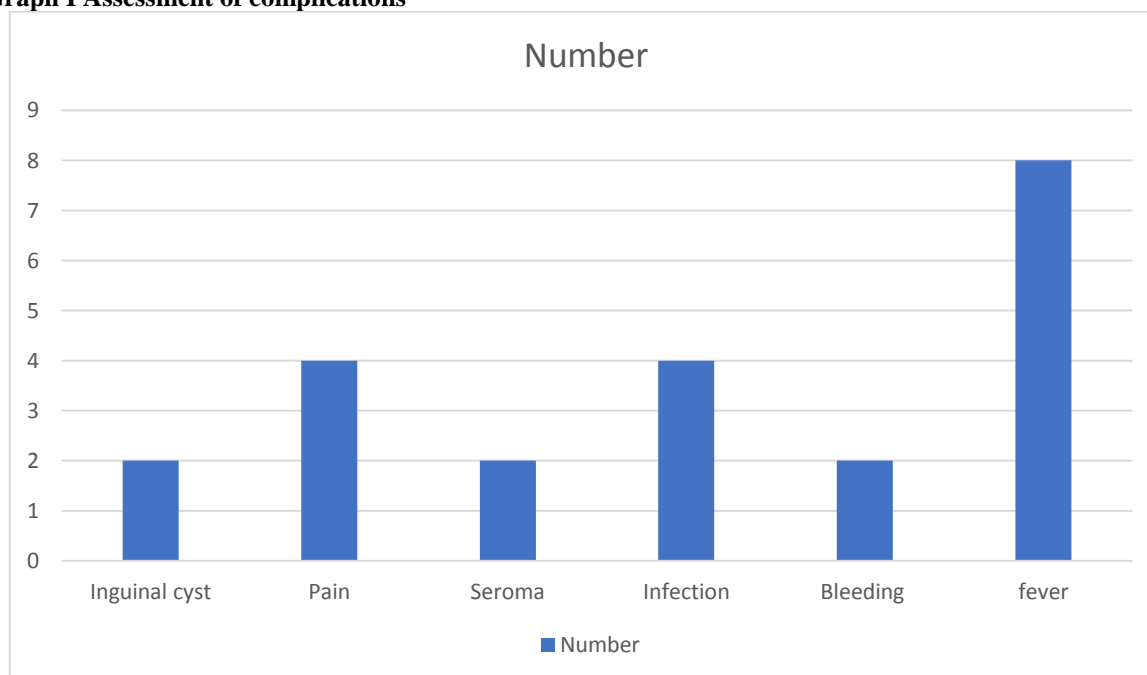
Parameters	Male	Female	P value
Operative time (minutes)	52.3	54.6	0.87
Hospital stay (Days)	3.6	3.4	0.94
Type			
Direct	25	6	0.01
Indirect	10	4	

Table II shows that mean operative time in males was 52.3 minutes and in females was 54.6 minutes. The mean hospital stay was 3.6 days in males and 3.4 days in females. Type was direct seen in 25 males and 6 females and indirect in 10 males and 4 females. The difference was significant ($P < 0.05$).

Table III Assessment of complications

Complications	Number	P value
Inguinal cyst	2	0.01
Pain	4	
Seroma	2	
Infection	4	
Bleeding	2	
fever	8	

Table III, graph I shows that complications were inguinal cyst in 2, pain in 4, seroma in 2, infection in 4, bleeding in 2 and fever in 8 cases. The difference was significant ($P < 0.05$).

Graph I Assessment of complications

DISCUSSION

Worldwide, more than 20 million patients undergo groin hernia repair per year. According to current literature, hernias “correspond to the partial or total protrusion of a viscera or organ contained in a bag with peritoneal lining outside the abdominal wall through a defect in the muscle-aponeurotic wall”.⁷ Hernias can occur in different positions: umbilical, epigastric, incisional, femoral or the most common one, inguinal. The only definitive treatment available for hernias is surgical. Despite the large number of techniques available for treatment, the use of meshes has been recommended in the surgical correction of

this pathology.⁸ The present study was conducted to assess patients undergoing hernia surgery.

In present study, out of 50 patients, males were 35 (70%) and females were 15 (30%). Compagna et al⁹ carried out retrospective analysis of 313 medical records of patients submitted to open inguinal hernioplasty surgery. Of the 313 cases studied, the most prevalent comorbidities were: 107 patients with hypertension (34.19%), 52 smokers (16.61%), 30 cases with diabetes (9.58%), 14 with hypothyroidism (4.47%) and 10 with COPD (3.19%). Regarding the total of the sample evaluated, 130 patients (41.53%) did not present any comorbidity. When evaluating the complications, there were 49 cases (15.65%) of

complications in the early postoperative period and 9 cases (2.88%) of chronic complications. The comorbidities that presented significant statistical influence.

We found that mean operative time in males was 52.3 minutes and in females was 54.6 minutes. The mean hospital stay was 3.6 days in males and 3.4 days in females. Type was direct seen in 25 males and 6 females and indirect in 10 males and 4 females. Yunis et al¹⁰ in their study 133,449 inguinal hernia repairs were included. The incidence for recurrence operations was 0.95%, for surgical complications 4.22%, for chronic pain requiring treatment 2.87%, and for the 30-day mortality 0.28%. Low volume hospitals (1–50 and 51–75 inguinal hernia repairs per year) showed a significantly increased recurrence risk compared to high volume hospitals with ≥ 126 inguinal hernia repairs per year. No significant correlations were found for the other results.

We found that complications were inguinal cyst in 2, pain in 4, seroma in 2, infection in 4, bleeding in 2 and fever in 8 cases. Risk factors that are useful in predicting complications in an adult patient with an inguinal hernia include old age, short duration, femoral hernia and coexisting medical disease.¹¹ Most guidelines recommend a technique incorporating mesh, either through an open or minimally invasive approach. Open inguinal hernia repair using mesh is most frequently used worldwide, particularly the Lichtenstein repair.¹² When tissue repair is desired, the first choice recommended would be the Shouldice repair. Minimally invasive techniques are highly studied in the literature.¹³ They are thought to have faster recovery times and less chronic pain if performed by experienced surgeons at a high resource center. Within the AHSQC surgeons, these guidelines seem to be well accepted. The AHSQC continues ongoing efforts to improve long-term follow-up and looks forward to addressing long-term outcomes such as recurrence and chronic pain with increasing data acquisition.¹⁴

CONCLUSION

Authors found that hernioplasty is commonly performed surgery. Common complications were inguinal cyst, pain, seroma, infection, bleeding and fever.

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