

Retrospective Assessment of Patients Undergoing Hernia Surgery: An Institutional Based Study

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ABSTRACT

Background: Inguinal hernia repair ranks among the 20 most surgery. 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: 64 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 64 patients, males were 40 and females were 24. The mean operative time in males was 54.2 minutes and in females was 56.2 minutes. Type was dierieta seen in 16 males and 12 females, esquerda in 10 males and 7 females and bilateral in 14 males and 5 females. The difference was significant ($P < 0.05$). Complications were inguinal cyst in 2, pain in 4, fever in 7, bleeding in 1, seroma in 2 and infection in 5 cases. The difference was significant ($P < 0.05$).

Conclusion: Inguinal hernioplasty is commonly performed surgical procedure. Complications were inguinal cyst, pain, fever, bleeding, seroma and infection.

KEYWORDS: Hernia, Seroma, Inguinal Cyst.

INTRODUCTION

Worldwide, more than 20 million patients undergo groin hernia repair per year.¹ Inguinal hernia repair ranks among the 20 most.² Inguinal hernioplasty is the most commonly performed surgical procedure in abdominal wall surgery, with 80,000 surgeries performed annually in Great Britain, 100,000 in France and 700,000 in the USA. It is noteworthy that 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.³ 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.⁴

A systematic review of the perioperative complications associated with inguinal hernia repair based on 39 studies with 571,445 patients identified a rate of 2.9% ($n=16,482/577,445$). The most common complications were bleeding (0.86%), surgical site infections (0.48%), and other complications (0.41%). The chronic pain rate given in the international guidelines is 0.5–6.0%. The surgical technique, gender, and size of the hernia defect have a decisive impact on the rate of chronic pain

requiring treatment. Of the total collective of repaired inguinal hernias, the proportion of recurrent inguinal hernias is 11%.⁵

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.⁶ The present study was conducted to assess patients undergoing hernia surgery.

MATERIALS & METHODS

The present study was undertaken with the aim of assessing the patients undergoing hernia surgery. The present study comprised of 64 patients underwent hernioplasty using the open technique 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. A thorough clinical examination was done. Location of inguinal hernia, length of hospital stay, complications etc. was recorded. Patients with presence

of any other systemic illness, or any known drug allergy were excluded from the present study. Results thus

obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Table I: Distribution of patients

Total- 64		
Gender	Males	Females
Number	40	24

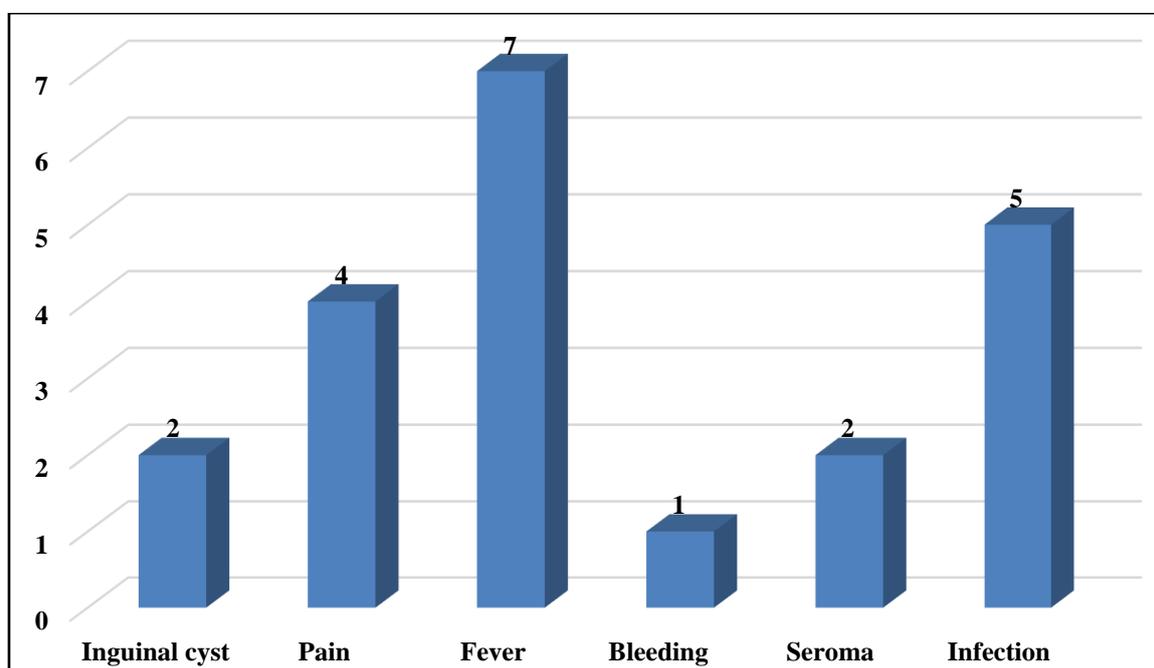
Table II: Assessment of parameters

Parameters	Male	Female	P value
Operative time (minutes)	54.3	56.2	0.92
Hospital stay (Days)	3.4	3.1	0.90
Type			
Dierieta	16	12	0.02
Esquerda	10	7	
Bilateral	14	5	

Table III: Comparison of complications

Complications	Number	P value
Inguinal cyst	2	0.01
Pain	4	
Fever	7	
Bleeding	1	
Seroma	2	
Infection	5	

Graph I: Comparison of complications



RESULTS

Table I shows that out of 64 patients, males were 40 and females were 24. Table II shows that mean operative time in males was 54.2 minutes and in females was 56.2 minutes. Type was dierieta seen in 16 males and 12 females, esquerda in 10 males and 7 females and bilateral in 14 males and 5 females. The difference was significant ($P < 0.05$). Table III graph I shows that complications were inguinal cyst in 2, pain in 4, fever in 7, bleeding in 1, seroma in 2 and infection in 5 cases. The difference was significant ($P < 0.05$).

DISCUSSION

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 64 patients, males were 40 and females were 24. We found that mean operative time in males was 54.2 minutes and in females was 56.2 minutes. Type was dierieta seen in 16 males and 12 females, esquerda in 10 males and 7 females and bilateral in 14 males and 5 females. Yunis et al⁹ 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 (odds ratio: 1.53 and 1.24). No significant correlations were found for the other results.

We found that complications were inguinal cyst in 2, pain in 4, fever in 7, bleeding in 1, seroma in 2 and infection in 5 cases. Compagna et al¹⁰ 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.¹⁰

Inguinal hernias are more common indirect, unilateral, on the right side and in men, with the risk of presenting this change throughout life being 27% in men and 3% in women. The epidemiological data from the studies already carried out coincide with this research, since in 263 cases (84.02%) the hernias were unilateral, in 152 patients (48.56%) they occurred on the right, and the study sample consisted of 283 men (90.42%), against 30 women (9.58%). Bilateral ones are rarer (they affect about 12% of patients), with direct and mixed ones being more frequent than indirect ones. Regarding bilateral hernias, there was an incidence of 48 cases (15.33%).¹¹ 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. A study carried out in 2013, covering patients over 50 years old and who underwent inguinal hernioplasty, showed that the short-term morbidity of patients undergoing tension-free surgery was: postoperative urinary retention (1.75%), infection at the surgical site (superficial wound infection) (1.75%) and scrotal edema (3.5%).¹²

CONCLUSION

From Present study, it can be concluded that inguinal hernioplasty is commonly performed surgical procedure. Complications were inguinal cyst, pain, fever, bleeding, seroma and infection.

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