

**Original article:**

## **Study for Evaluation of Hernia Surgery Patients: A Retrospective Analysis at a Tertiary Care Hospital**

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### **Abstract**

**Background:** Inguinal hernioplasty is the most commonly performed surgical procedure in abdominal wall surgery. Several surgical techniques have been described in the literature for the correction of inguinal hernia. The present study was conducted to retrospectively assess patient undergoing hernia surgery.

**Materials and Methods:** The present study was undertaken with the aim of assessing the patients undergoing hernia surgery. The present study comprised of 160 patients underwent hernioplasty using the open technique of both genders. Patients' demographics were recorded & a thorough clinical examination was done. 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:** In the present study a total sample was 160 in which 65% were males and 35% were females. Operative time for males was 55.9mins & for females was 57.8mins. Hospital stay for males was 3.9days and for females was 3.6days. In males right side hernia occur in 46 cases and in female in 27cases. In males left side hernia occur in 24 cases and in female in 18 cases. In males bilateral hernia occur in 34 cases and in female in 11 cases. In maximum cases fever occur as complication followed by infection and pain.

**Conclusion:** The present study concluded that a total sample was 160 in which 65% were males and 35% were females. In maximum cases fever occur as complication followed by infection and pain.

**Key words:** Hernia, Hernioplasty, Inguinal Hernia.

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### **INTRODUCTION**

A word hernia was derived from Greek word Hernos – a branch or protrusion was a recognized condition for thousands of years and hernia was first to described accurately by Hippocrates in 400 BC.<sup>1</sup>Hernia can occur in any part of body; it may be internal or external hernia. External hernia usually occurs in the groin with more incidence of inguinal hernia (IH) as compared to femoral hernia.<sup>2</sup> Inguinal hernia repair ranks among the 20 most.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup> The lifetime rate of inguinal hernia is 25 percent in males and 2 percent in females.<sup>6</sup> The risk of inguinal hernia increases with age, and the annual incidence is around 50 percent by the age of

75.<sup>7</sup> Approximately 10 percent of cases are bilateral.<sup>8</sup> Recurrence occurs in approximately 1 percent to 5 percent of cases.<sup>9</sup> The present study was conducted to retrospectively assess patient undergoing hernia surgery.

**MATERIALS AND METHODS**

The present study was undertaken with the aim of assessing the patients undergoing hernia surgery. The present study comprised of 160 patients underwent hernioplasty using the open technique of both genders. Before the commencement of the study ethical approval was taken from the Ethical Committee of the institute and the informed consent was taken from the patient. Patients’ information such as name, age, gender etc. was recorded. A thorough clinical examination was done. Location of inguinal hernia, length of hospital stays,

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.

**RESULTS**

In the present study a total sample was 160 in which 65% were males and 35% were females. Operative time for males was 55.9mins & for females was 57.8mins. Hospital stay for males was 3.9days and for females was 3.6days. In males right side hernia occur in 46 cases and in female in 27cases. In males left side hernia occur in 24 cases and in female in 18 cases. In males bilateral hernia occur in 34 cases and in female in 11 cases. In maximum cases fever occur as complication followed by infection and pain.

**Table 1: Distribution of patients**

Gender	N(%)
Male	104(65%)
Female	56(35%)
Total	160(100%)

**Table 2: Assessment of parameters**

Parameters	Male	Female	P value
Operative time(minutes)	55.9	57.8	≤0.05
Hospital stay (Days)	3.9	3.6	
Type			
Right side	46	27	
Left side	24	18	
Bilateral	34	11	

**Table 3: Comparison of complications**

Complications	N	P value
Inguinal cyst	5	≤0.05
Fever	14	
Pain	9	
Bleeding	2	
Seroma	4	
Infection	10	

## DISCUSSION

As From ancient age to modern era, different methods of hernia repair were found such as tightening of the external inguinal ring and reinforcement of the anterior wall of the inguinal canal performed by Stromayr, 1559, Purmann, 1692, and Czerny, 1877.<sup>10</sup>

Reconstruction of the posterior wall of inguinal canal by an Italian surgeon Bassini<sup>11-13</sup> and Shouldice repair<sup>14-18</sup> a Canadian surgeon proposed imbrication of the transverse fascia and strengthening of the posterior wall of inguinal canal by four layers of fasciae and aponeurosis of oblique muscles. Strengthening of the posterior wall of inguinal canal using prosthetic material by Lichtenstein. Common open method (trans-inguinal approach) is Lichtenstein technique of repair using prosthetic mesh is now current procedure of practice across the world.<sup>19-22</sup>

In the present study a total sample was 160 in which 65% were males and 35% were females. Operative time for males was 55.9mins & for females was 57.8mins. Hospital stay for males was 3.9days and for females was 3.6days. In males right side hernia occur in 46 cases and in female in 27cases. In males left side hernia occur in 24 cases and in female in 18 cases. In males bilateral hernia occur in 34 cases and in female in 11 cases. In maximum cases fever occur as complication followed by infection and pain. 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%).<sup>23</sup>

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%).<sup>24</sup>

Open and laparoscopic/endoscopic techniques have been compared in a number of studies. All laparoscopic repairs are more expensive than open repairs as reported by Hynes et al. in North America<sup>25</sup>, McCormack et al. in the UK.<sup>26</sup> While Lichtenstein method is easy to learn<sup>27</sup>, safe even for beginners and cost effective.

## CONCLUSION

The present study concluded that a total sample was 160 in which 65% were males and 35% were females. In maximum cases fever occur as complication followed by infection and pain.

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