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Original Research Article

Socio-Demographic and Clinical Profile of Patients Undergoing Lichtenstein Tension-Free Inguinal Hernioplasty for Inguinal Hernia: A Prospective Observational Study

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Abstract

Background and Objectives: Inguinal hernia is a common surgical condition. Lichtenstein tension-free inguinal hernioplasty is a widely accepted repair technique. To describe the socio-demographic profile of patients undergoing Lichtenstein tension-free inguinal hernioplasty. To analyze the clinical characteristics of patients undergoing Lichtenstein tension-free inguinal hernioplasty. All the hernias, 75% occurs in groin and inguinal hernia is the most common form of all. Acquired hernia can be direct, indirect or combination of both. In adult males 65% of inguinal hernias are indirect and 55% of them are right side.

Methods: This prospective study was conducted in the Department of General Surgery, at JNKTMCH Madhepura. Study duration is Eighteen months. 50 patients were included in the study.

Results: In our study, the patients age ranged from 18 years to 87 years with a mean age of 50.26±15.76 years. 22 (44%) patients had inguinal hernia on right side

Conclusion: We concluded that mostly patients were more than 50 yrs age group and right side.

Keywords: Age, Site, Hernia.

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Introduction

All the hernias, 75% occurs in groin and inguinal hernia is the most common form of all. Acquired hernia can be direct, indirect or combination of both. In adult males 65% of inguinal hernias are indirect and 55% of them are right side. Cause of the hernia is multi-factorial. Increased intra- abdominal pressure and weak abdominal wall are the basis of hernia formation. Inguinal hernia surgery is the most commonly performed surgery worldwide. About one third of the surgical interventions made by general surgeons are inguinal hernia repair.[1]

The open mesh repair technique, Lichtenstein tension free hernia repair is the most frequently performed for inguinal hernia. Many randomized trials and meta-analyses have shown that mesh repair reduces the risk of hernia recurrence, and the prosthetic repair is worldwide accepted as the gold standard in inguinal hernia repair. The Lichtenstein technique is a tension free repair of weakened inguinal floor using a polypropylene mesh.[2]

Material and Method

This prospective study was conducted in the Department of General Surgery, Jannayak Karpoori Thakur Medical College, and Hospital Madhepura, Bihar. Study duration is Eighteen Months. after being approved by institutional protocol review committee and ethics committee.50 patients were included in the study.

Inclusion Criteria

All Patients of both gender above the age of 18years with unilateral or bilateral inguinal hernia.

Exclusion Criteria

- Patients with recurrent or strangulated inguinal hernia.
- Femoral hernia and giant scrotal hernia with massive defect.
- Below 18 years of age.
- Allergic to injection Amoxicillin+ Clavulanic acid.
- With systemic diseases like diabetes mellitus.
- Liver or renal impairment.
- Patients on steroid or antibiotic therapy within a week before surgery.
- Pregnant or lactating women.
- Immunocompromised patients will be ex-cluded from the study.

Characteristics of the Study

Participants: 50 patients who underwent inguinal mesh hernioplasty.

Intervention: Surgery-Lichtenstein tension free inguinal mesh hernioplasty

Statistical Analysis: Data were expressed as frequency, percentage, mean and standard deviation. Diagnostic values were calculated using Med Calc for Windows, version 19.1.17(Med Calc Software, Ostend, Belgium).

Results

Table 1: Age distribution

Age Group	No of cases	Percentage
<20	2	4.00
21-30	5	10.00
31-40	4	8.00
41-50	11	22.00
51-60	14	28.00
61-70	12	24.00
>70	2	4.00
Total	50	100.00

In the present study, age of the patients ranged from 18 years to 87 years with a mean age of 50.26±15.76 years. Out of total fifty patients, 14 (28%) patients were in age group of 51-60 years, followed by 12 (24%) patients in age group of 61-70 years, 11 (22%) patients in age group of 41-50 years, 5 (10%) patients in the age group of 21-30 years and 4 (8%) patients in the age group of 31-40 years. There were only 2(4%) patients less than 20 years of age, and 2 (4%) patients age were more than 70 years.

Table 2: Side of hernia

Side of hernia	No of cases	Percentage
Right	22	44.00
Left	19	38.00
Bilateral	9	18.00
Total	50	100.00

Out of total 50 patients, 22 (44%) had inguinal hernia on right side, 19 (38%) patients had inguinal hernia on left side and 9 (18%) patients had bilateral inguinal hernia.

Table 3: Type of Hernia

Type of hernia	Antibiotic group (Group-A)	Non-antibiotic (Group-B)	Total
Direct	13	13	26
Indirect	10	11	21
Both	2	1	3
Total	25	25	50

In our study, out of total 50 patients, 26 (52%) had direct inguinal hernia, 21 (42%) had indirect inguinal hernia and remaining 3 (6%) patients had pantaloon hernia.

Discussion

The present study was aimed to evaluate the role of single dose antibiotic prophylaxis in elective open inguinal mesh hernioplasty to prevent surgical site infection in the patients admitted in department of surgery, Jannayak Karpoori Thakur Medical College, and Hospital Madhepura. Total 50 patients were enrolled into the study after fulfilling the inclusion and exclusion criteria.

In our study, we observed that the age distribution ranged from 18- 87 years with a mean age of 50.26 years. Majority of patients were in the age group of 40-60 years. These findings were comparable to the observation of Shankar et al, where the age of patients ranged from 15-83 years with a mean age of 45 years. Another similar study conducted by Tzovaras et al, found that the age of patients with inguinal hernia ranged from 15- 90 years with mean age was 63 years. In our study, all the patients were male. In another similar study by N Vinoth et al,out of 60 patients all the patients of their study were male. In our study, 22(44%) patients had right sided inguinal hernia, 19 (38%) patients had left sided hernia, and 9(18%) patients had pantaloon hernia. In the similar study conducted by Ul Haq et el, on 100

patients noted, 47(47%) patients had right sided inguinal hernia, 29(29%) patients had left sided hernia, and 24(24%) patients had bilateral inguinal hernia. This study was comparable to our study.

Conclusion

In our study, we concluded that statistically insignificant difference was found in the incidence of SSI in Antibiotic and Non-antibiotic Group.

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