

A Study to Compare Postoperatively Clinical Outcome in Laparoscopic Total Extraperitoneal Vs Lichtenstein Mesh Hernioplasty in Inguinal Hernia

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Abstract: Introduction: A detailed study of 30 cases was conducted in Mahatma Gandhi medical college and hospital, Jaipur, Rajasthan, India. We randomly assigned 30 patient to TEP (group A) or Lichtenstein mesh repair (group B) of inguinal hernia. The patients were followed up by physical examination at 6 month. Aim: To compare post operatively clinical outcome & return to normal and full activity and complication in laparoscopic total extra peritoneal vs Lichtenstein tension free mesh repair in inguinal hernia. Objectives: To study severity of post operatively pain using visual analogue, readiness for discharge from hospital, days required to return to normal activity, To study rate of complication after each procedure. Method: A Prospective clinical hospital based study was done in 30 patients. Inclusion criteria: patients diagnosed of having inguinal hernia admitted for undergoing elective mesh hernioplasty, Exclusion criteria: A. recurrent hernia, B. complicated hernia, C. congenital hernia, D. ASA grade iii and above, E. laparoscopic procedure failure. Result: In our study 15 people operated TEP were allotted group A and another operated with Lichtenstein tension free mesh hernioplasty were taken into another group B. out of 15 patients of TEP 5 were bilateral and 10 were unilateral out of which 6 were rt.sided and 4 were lt.sided. In my study patients in TEP group had significantly lesser hospital stay and light work earlier and felt comfortable in resuming full work activities as compare to LMR group. Discussion: Several study has been done on comparison between open and laparoscopic repair of inguinal hernia. In this study we restricted only to postoperatively outcome undergoing TEP and LMR. In our study overall pain score were lower in TEP, and hospital stay was significant lower, and time taken to return to work to be significantly short in TEP, and post op complication were higher in LMR. There were no cases of recurrence in both groups during period of study.

Keywords: Laparoscopic Total Extraperitoneal Vs Lichtenstein Mesh Hernioplasty in Inguinal Hernia

1. Introduction

A detailed study of 30 cases was conducted in Mahatma Gandhi medical college and hospital, Jaipur, Rajasthan, India. It has been estimated that life time risk of having a hernia 27% in males and 3 % in females. We randomly assigned 30 patient to TEP (group A) or Lichtenstein mesh repair (group B) of inguinal hernia. The patients were followed up by physical examination at 6 month. In our institution, inguinal hernia repair is one of the common surgeries performed only. This study aim at studying the postoperatively outcome by comparing postoperative pain, days of hospital stay, days require to return to normal and full activity and complication in TEP vs Lichtenstein mesh hernioplasty (LMR) in inguinal hernias.

2. Aim

To compare post operatively clinical outcome & return to normal and full activity and complication in laparoscopic total extra peritoneal vs Lichtenstein tension free mesh repair in inguinal hernia.

3. Objectives

- 1.To study severity of post operatively pain using visual analogue, 2.Readiness for discharge from hospital(from patients and surgeons perspective)
- 2.Days required to return to normal activity(self care activities using katz index of independence in activities of daily living, light work, full work)

- 3.To study rate of complication after each procedure like wound related SSI, Seroma, hematomas, intraabdominal, vascular injuries, hernia recurrence)

4. Method & Material

A Prospective clinical hospital based study was done in 30 patients at tertiary care referral hospital in the department of general surgery.

Study design- Prospective study

Inclusion criteria-

- (a) Patients diagnosed of having inguinal hernia admitted for undergoing elective mesh hernioplasty

Exclusion criteria-

- A. Recurrent hernia
- B. Complicated hernia
- C. Congenital hernia
- D. ASA grade iii and above
- E. Laparoscopic procedure failure.

5. Material

1. At least 30 consecutive patients with uncomplicated inguinal hernia undergoing mesh hernioplasty as admitted patients by either Lichtenstein or TEP
2. Surgeries were performed by surgeons with a minimum experience of 20 similar surgeries.

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- Standard size prolene mesh 15*7 cm in open and 15*15cm in TEP.

6. Methods

- Patients were matched in respect of age and sex in both the groups.
- Pain assessment was done using visual analogue scale.
- A strict analgesics regimen was followed for pain management.
- Surgical complication include wound hematoma, infection, vascular injury(femoral vessels, testicular artery, pampiniform venous plexus).vas deferens injury, ischemic orchitisetc were recorded in details.

7. Result

In our study 15 people operated TEP were allotted group A and another operated with Lichtenstein tension free mesh hernioplasty were taken into another group B. out of 15 patients of TEP 5 were bilateral and 10 were unilateral out of which 6 were rt.sided and 4 were lt.sided.

1. Comparison of two group A and B in term of demographic data of the patients in term of sex distribution included in the study.

GENDER	GROUP A (TEP)	GROUP B (LMR)
Male	15(100%)	15(100%)
Female	0	0
Total	15	15

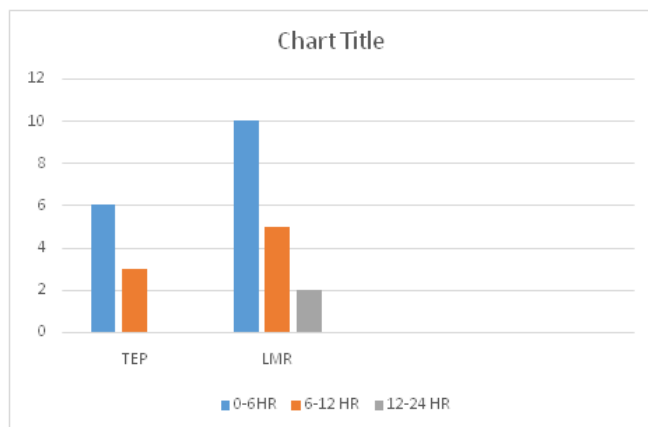
All patients included in the study were male.

2. Comparison of the two groups A & B in term of diagnosis and type of hernia.

DIAGNOSIS	GROUP A TEP	GROUP B LMR	TOTAL
Rt.inguinalhernia	6(40%)	8(53%)	14
Lt.inguinal hernia	4(26.6%)	7(46.6%)	11
Bilateral inguinal hernia	5(33.3%)	0	5
Total	15	15	30

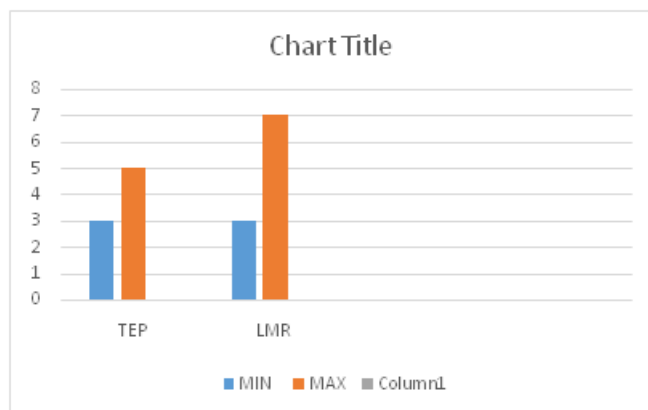
Amongst 15 patients in group A TEP 6 (40%) had rt.side hernia, 4 (26.6%) had lt.inguinal hernia, &5 (33.3%) had Bilateral hernia, in group B (LMR) 8(53%) were rt.inguinal hernia, 7(46.6%) were lt.side.

3. Post Operative Pain



Amongst 15 patient in group A (TEP) pain (0-6hr) 6 patient were in pain, (6-12 hr) 3 patient and 00 patient in (6-12 hr)were in pain whereas in group B(LMR) 10 patient were in pain (0-6 hr) and 5 patient in (6-12hr) and 2 patient in (12-24 hr).

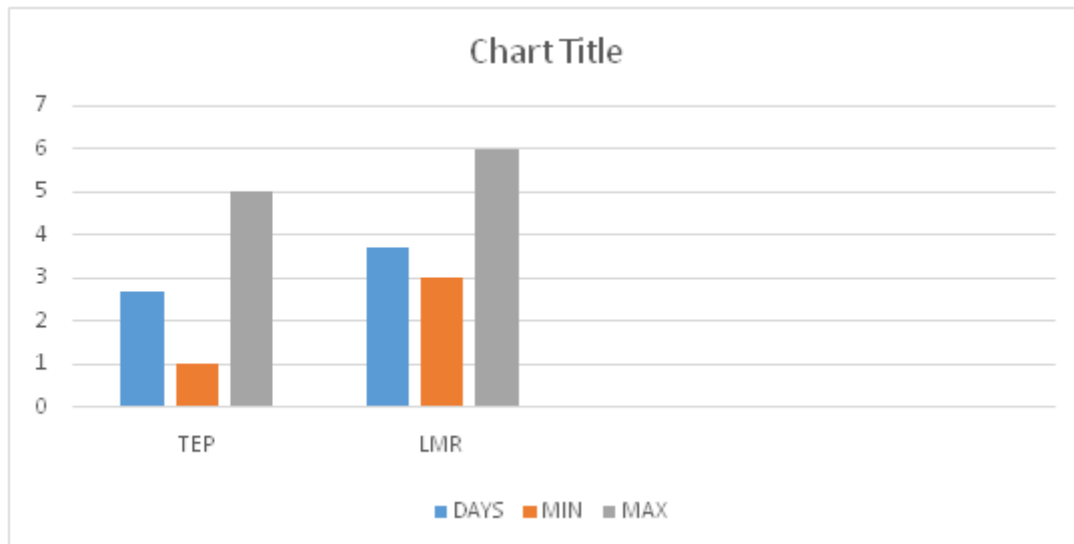
4. Readiness for discharge



TEP-min.3 max.5, LMR-min.3 max.7

In my study patients in TEP group had significantly lesser hospital stay

5. Days required returning to activities-



Mean days-LMR-3.7 TEP-2.7

MIN.3 AND MAX.6 IN LMR, MIN 1 AND MAX 5 IN TEP

In my study patients in TEP group achieved independence in daily activities as compare to LMR group.

6. Complication

complication	TEP	LMR
infection		
superficial	0	3
deep	1	0
hematoma	1	0
recurrence	0	0

In my study TEP vs LMR recurrence were 0 %, and deep infection in TEP were in 1 patient and hematoma were in 1 patient where as in group B with LMR superficial infection were in 3 patient.

8. Discussion

Several studies have been done on comparison between open and laparoscopic repair of inguinal hernia. In this study we restricted only to postoperatively outcome undergoing TEP and LMR

In our study overall pain score were lower in TEP, and hospital stay was significant lower, and time taken to return to work to be significantly short in TEP, and post op complication were higher in LMR

There were no cases of recurrence in both groups during period of study.

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