

Comparative Study of Post Operative Outcome with Reference to Pain in Unilateral Versus Bilateral Open Inguinal Hernioplasty by Lichenstien Repair

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Abstract

Inguinal Hernia is most common General Surgical Problem. Males are more affected than Female. Almost 15 to 20% population develop Inguinal Hernia in lifetime. Among the Inguinal Hernia Patients 90% are Male and 10% are Female. Around 80% are Unilateral and 20 % are Bilateral Inguinal Hernia.

Aims and Objective: To study the Early and Late Complication in terms of Pain in Unilateral and Bilateral Inguinal Hernioplasty in Same sitting by Open lichenstien Repair. To Compare Severity of Pain, Mesh Discomfort, Pain at Rest and Analgesics Required duration of treatment In Post Operative Period.

Materials and Methods: During period From January 2023 to June 2023, Retrospective Study done on 30 (thirty) Patients Operated for Unilateral and Bilateral Inguinal lichenstien Repair, at Nootan General Hospital and Medical College Visnagar. Visual Assessment Scale was Not used, but direct interview of Post Operative patients done up to 6 months follow up Post operatively, by asking Patients Regarding (1) Mil (2) Moderate and (3) Severe pain Category depends on Activity and Analgesics Requirement.

Results and Conclusion: Bilateral Inguinal Hernioplasty in Same Sitting Gives Almost Comparable Outcome to Unilateral Inguinal Hernioplasty by lichenstien Repair, in terms of Severity of Pain and Mesh Discomfort and Time to Early Return to Work.

Keywords: Lichenstien Repair, Hernioplasty, Unilateral (UL), Bilateral (BL), Neurological Pain, Prolene Mesh. CPIP (chronic post operative inguinal pain), UI (unilateral), BI (bilateral), BPH (Benign Prostatic Hypertrophy)

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Introduction

In recent times inguinal hernia surgery has undergone revolutionary changes with use of laparoscopy, which is quiet useful in unilateral and bilateral direct and indirect hernia. [1-3] But laparoscopy is not affordable to many patients with ul and bl inguinal hernia. Many techniques of open hernioplasty are done but most frequent done method of open inguinal hernioplasty is lichenstien tension free repair with use of prolene mesh. [4,5]

Poor and economically not affordable patients insists for open inguinal hernioplasty in unilateral and bilateral cases. Which is economical, easy and cost effective. After proper consent and explanation regarding pros and cons of open and lap hernia surgery, they insisted for open surgery, all patients were operated for lichenstien hernioplasty. [6]

Post operative pain in bilateal and unilateral cases were almost comparable to each other so in poor patients with bilateral inguinal hernia, lichenstien

hernioplasty in same sitting by lichenstien tension free repair is surgery which is equally effective. [7]

Inclusion Criteria

1. Ingunal hernia patients unilateral and bilateral
2. Small direct and indirect reducible inguinal hernia confined to inuinal canal and upper scrotum in male, and in inguinal region in female.
3. Male and female patients seen in OPD at Nootan General Hospital, Visnagar.

Exclusion Criteria

1. Patients <18 years age
2. Previous inguinal hernia surgery
3. Major cardiorespiratory disease not fit for anaesthesia
4. Benign prostatic hypertrophy
5. Those who presented as obstructed or strangulated inguinal hernia.

Materials and Method

Retrospective study of 30 inguinal hernia patients operated at nootan general hospital from january 2023 to june 2023.

Male -26 female-4

Ul Inguinal Hernia: Male- 13, Female- 2

Bl Inguinal Hernia: Male- 13, Female -2

Total Patients: n=30

Male 26 female 4

Sex	Ul	Bl	Total	Mean age in years
Male	13 50%	13 50%	26	18 to 60 Mean 39
Female	2 50%	2 50%	4	20 to 40 Mean 30
Total	15	15	30	Overall mean age 35 years

All patients were undergone pre-operative blood reports and ultrasonography of inguinal region and abdomen all patients were operated under spinal anesthesia.

In BL hernia cases separate incision placed in both inguinal areas. Surgery was done with proper aseptic precaution and meticulously, to avoid damage to ilio inguinal nerve damage and injury to other neurovascular structures, and proper tension free prolene mesh 15*7.5 cm was used for surgery. Mesh fixation was done with prolene 2-0.

All patients kept indoor for 2 days including day of surgery. Liquids orally started in evening on day of surgery and on next day light diet given. Antibiotics and analgesics were same type given to UL and BL cases.

Result / Observation

Lichtenstien open inguinal hernioplasty is tension free repair it gives minimal post operative pain in unilateral and bilateral hernioplasty. Although laparoscopic repair is superior in terms of minimal post operative pain and early return to work, it is not affordable to rural poor patients.

Six Months Followup	UL Male	UL Fe- male	BL Male	BL Fe- male	Total
Post op pain in hospital	8 61%	1 50%	9 69%	1 50%	19 63.3%
Pain at rest up to 3 months post op	1 7.6%	0	1 7.6%	0	2 6.6%
Pain while doing work and activity	3 23%	1 50%	4 30%	0	8 24%
Mesh discomfort	2 15%	1 50%	2 15%	0	5 16.6%
Persistent pain requiring analgesics after 3 months	0	0	1 7.6%	0	1 3.3%

1. Average time of surgery: Ul-40 minute, BL- 70 minute
2. Intraoperative bleeding insignificant in both UL and BL Cases.
3. Average hospital stay: 2 days.
4. Post operative retention of urine- 2 male patients of 58- and 60-years age.
5. Post operative pain severity assessed by asking patients in follow up in OPD.
 - Mild- Required analgesics for one week and no disability.
 - Moderate - Requiring analgesics for 3 week post operative period while doing work.
 - Severe -Pain at rest and analgesics taken beyond 3 months post operatively.

Immediate post operative pain in hospital, in Male BL was 69%, and in UL 61%. In UL and BL Female

it was 50%. Pain moderate is while doing work and activity was 23% in ul Male and 30% bl Male. Exceptionally one UL Female got 50% Moderate Pain. Rest pain upto 3 months was seen in both UL and BL Male comprising 7.6%. Persistent Analgesics Beyond 3 months was required in 1 BL Male patient.

Following study were done by Various Researchers. My Study is Comparable.

1. Vanita Gupta et al. reported 0.78% chronic inguinal pain after open inguinal hernioplasty after 1 year.[2,4]
2. My study is of small sample size and follow up of six months in post operative period. However comparable to outcome of other studies and also guide for bigger study.

3. Johann Cunningham et al. reported 12% post operative inguinal pain after lichenstien repair in BL cases.
4. Sargio Alferi et all reported 0, 5 % chronic inguinal pain after one year.

Discussion

Rural poor economically unaffordable patients with bilateral inguinal hernia do Opt for bilateral hernioplasty in same sitting, which is comparable to unilateral post op hernioplasty outcome and recovery time duration. [8,10]

Conclusion

Inguinal hernia is common surgical problem.

Laparoscopy has edge over open surgery in both UL and BL cases.

Due to poor economic condition and difficulty to get experience laparoscopic inguinal hernia surgeon in rural area in poor population BL Hernia surgery by lichenstien tension free repair is quite comparable to UL Hernia open lichenstien repair.

Post operative outcome in terms of pain in inguino scrotum in male, and inguinal region in female were ascertained by consulting to patients of both UL and BL lichenstien repair surgery.

1. Mild Pain is equal in both cases UL and BL in immediate post op period.
2. Moderate Pain was more in BL than UL Post Op Cases, but not Much Difference Found in Percentage in BL and UL cases.
3. Severe persisting pain where patient could not return to work was seen only in one Male BL Operated Patient, which was recovered in 5 months follow up examination.
4. Surgery under Spinal Anesthesia is Economical and Regular Prolene Mesh of 15*7.5 cm is also cost effective in poor patients.
5. Bilateral Open lichenstien Inguinal Hernioplasty in Same Sitting is Equally Effective as Unilateral Inguinal lichenstien Hernioplasty. With comparable Post Operative Pain a Resuming Normal Activity and Work.

Present study of 30 patients do suggest that open tension free hernioplasty by lichenstien repair is equally effective in bilateral and unilateral hernioplasty in same sitting. Rural economically unaffordable patients do Opt for open hernioplasty. This study is relatively small sample size and followup time. However it guides for bigger study.

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