



STUDY OF LAPAROSCOPIC VERSUS OPEN INCISIONAL HERNIA REPAIR

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**KEYWORDS :**

**AIM**

To compare open vs laparoscopic incisional hernia in term of operating time,scar pain and quality of life and complications.

**INTRODUCTION**

Unfortunately incisional hernia is relatively common clinical problem after the abdominal surgery. This complication has been reported in upto 11% of the patient after open abdominal operations. Most hernia occurs in midline abdominal incision since these are currently most commonly used incisions for open abdominal procedure. This incisional hernia can be better repaired by open as well as laparoscopy route. With the advancement of laparoscopic skill, laparoscopic hernia repair is gaining popularity.

**MATERIAL AND METHODS**

In present study 30 patient were evaluated for 9 months

- Preoperative preparation
- Anaesthesia
- Operative method
- Patient has to undergo open or laparoscopic mesh repair
- Post Operative period
  1. Intravenous drip given as per need, i.v antibiotic given and anal gestic given as per need
  2. The patient was given oral antibiotic for 5 days and oral analgesic given as per need.
  3. Dressing was done on post operative 3rd day and stitch were generally removed between 7th and 10th day.
  4. Follow up examination for scar pain and any complication particularly for recurrence was made. All the data recorded

**Guidelines**

-Chronic pain: pain persisting at 3 month (International study of pain)

- Visual Analogue scan: Various pain scaling system available like:
  1. Categorical rating scale (CRS)
  2. Visual Analogue scale (VRS)
  3. Verbal numerical rating scale (VRNS)
- But for simplicity and better patient compliance we have selected VAS for pain evaluation. This scale range from 1 (no pain) to 10 (worst possible pain).
  - P0 score: no pain
  - P1 score: 1-3mild pain
  - P2 score: 4-6 moderate pain
  - P3 score: 7-10 severe pain

**RESULTS**

**Table:1 Distribution Of Cases According To Age And Type Of Hernia**

AGE(Years)	OPEN	LAPAROSCOPY	TOTAL
1-20	-	1	1(3.33%)
21-30	1	1	2(6.66%)
31-40	4	6	10(33.33%)

41-50	5	2	7(23.33%)
51-60	3	5	8(26.66%)
61-70	2	-	2(6.66%)
TOTAL	15	15	30(100%)

**Table:2 Post Operative Pain And Its Relation To Type Of Hernia Repair. VAS at Day 3**

PAIN SCALE	OPEN	LAPROSCOPIC
P0	0	0
P1	11(73.33%)	8(53.33%)
P2	4(26.66%)	7(46.66%)
P3	0	0

**VAS at Day 7**

PAIN SCALE	OPEN	LAPROSCOPIC
P0	5(33.33%)	2(13.33%)
P1	4(26.66%)	2(13.33%)
P2	0	0
P3	0	0

**Table 3: Duration Of Hospital Stay In Relation To Method Of Hernia**

DURATION OF STAY(Days)	6-7	>7
Open	7	8
Laparoscopy	15	0

**Table 4: Comparison Of Operative Time In Open Vs Laparoscopic Method**

	Mean Duration (mins)
OPEN	78
LAPROSCOPY	124

**Table 5: Rate Of Early Complication In Both Type Of Hernia Repair**

Early Complication	Open	Laparoscopy
Pain	5	2
Hematoma,Seroma	2	0
Wound/mesh infection	2	0
Surgical emphysema	0	2

From the above Data we conclude that there is no significant difference in the choice of method in old age group,if there is no associated co-morbid condition old age group.

Most of the patient on 7<sup>th</sup> day post Operatively, had mild pain and only few people receive analgesic .

Incidence of pain was significantly lower after the laparoscopy repair than with open.

Duration of hospital stay was less in Laparoscopy method as compared to open method.

Average operative time for open method is 78 mins and for laparoscopy method is 124 mins.

There are more chances of pain, Hematoma aroma and wound infection in open method while surgical emphysema is more common in Laparoscopy method.

**RETURN TO ROUTINE WORK:**

It is found that most of the patients operated by laparoscopy were able to do their routine work within 1 week while those operated by open were able to do their routine work at 3 weeks. Thus we conclude that a patient can resume their original work more early in Laparoscopy as compared to operated by open.

**CONCLUSION:**

- Open method is preferable in old age group with comorbid condition.
- Pain was significantly lower in early post-operative period in Laparoscopy method compared to open method.
- Duration of hospital stay was significantly lower in Laproscopic method.
- Laparoscopic method is more costly than open method.
- Operative time is significantly higher in Laproscopic method.
- Early Complication like pain seroma, haematoma, pain and wound infection is more common in open method and surgical emphysema is more seen in Laparoscopy.
- Return to routine work is earlier in Laproscopic method.
- Laparoscopic method requires expertise.

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