



A COMPARATIVE ANALYTICAL STUDY BETWEEN CONVENTIONAL OPEN TECHNIQUE V/S LAPROSCOPIC APPROACH FOR INGUINAL HERNIAS

Surgery

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ABSTRACT

Background:- Inguinal hernia most probably has been the disease ever since mankind existed. The main reason for intervention however remained the same i.e. continuous growth of inguinal and scrotal swelling, the risk of incarceration, strangulation and bad results of conservative methods like truss placement. Surgical techniques have however evolved over time since Edoardo Bassini proposed his first successful reconstruction of inguinal floor. Inguinal mesh hernioplasty is one of the common procedures performed throughout the world. The laparoscopic approach to inguinal hernioplasty is now well established. The laparoscopic approach offers advantages in terms of lesser postoperative pain and analgesic requirements as well as a significantly early return to work. The incidence of chronic debilitating pain is also significantly lower than with open mesh repair. It offers the advantage of examining the opposite side for the presence of a small hernia sac. In cases of recurrent hernia, following previous open mesh repair, the laparoscopic approach allows access to the hernial site without going through scarred tissues or mesh.

KEYWORDS

Objectives:-

- To study and compare the post-operative complications of conventional and laparoscopic inguinal hernia repair with meshplasty.
- To study the advantages of laparoscopic repair over open repair technique.

Methods:- 100 patients were subjected to the inguinal hernia repair by prolene mesh by either conventional or laparoscopic techniques in Krishna Institute of Medical Sciences, Karad during the period of from October 2015 to June 2017. Of these 100 patients, 50 patients underwent conventional meshplasty while other 50 underwent laparoscopic meshplasty. The follow-up was done on OPD basis till October 2017.

The patients and their relatives were briefed about the respective procedures, its advantages and the expected complications. The patients chose the modalities on their own and none were forced to choose a particular type of treatment. Most of the patients' pre-operative investigations were done on OPD basis and admitted one day prior to surgery. Pre-anesthetic check-up was done. Spinal anesthesia was given for open techniques; while General anesthesia was preferred for laparoscopic repair. Post-op antibiotics were given and analgesics given on demand.

Result:- Inguinal hernia was found to be more common amongst men than women. 27% patients were amongst the age group of 61-70. 38% operated hernias were direct type, on the other hand 61% were indirect and 5% were found to have both direct and indirect type of hernia. 99% hernias were reducible and 1% were obstructed. Hypertension was sought to be the most commonly associated co-morbid condition followed by Diabetes mellitus. Only two patients (2%) with open repair developed local wound infection at the subcutaneous level. 21 patients (42%) of open repair complained of postoperative pain on 2nd day which was subsided by either psychological counseling or analgesics. 1 patient (2%) of laparoscopic repair complained of postoperative pain. 58% patients of laparoscopic repair were discharged on 1st post-op day. On the other hand 50% patients of open repair were discharged on 3rd post-op day.

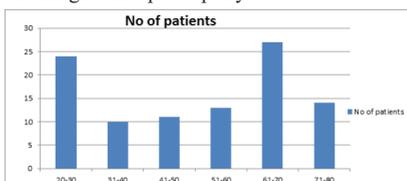


Figure 1. Patient distribution according to age

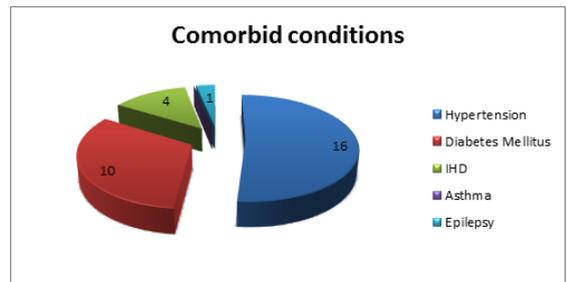


Figure 5. Co-morbid conditions

Table 1. Comparison of postoperative pain on POD 1

Pain on POD1	N	Mean	SD	Median	Quartile range	Min	Max	Mann-Whitney U test	p level
Lap	50	2.36	1.11	2	1	0	5	88	0.000013
Open	50	4.32	1.25	4	2	2	6	Difference is significant	

Table 2. Comparison of postoperative pain on POD 2

Pain on POD2	N	Mean	SD	Median	Quartile range	Min	Max	Mann-Whitney U test	p level
Lap	50	1.13	0.92	1.00	0.34	0	3	278	0.503242
Open	50	2.39	0.84	2.21	1.25	1.08	3.93	Difference is significant	

Table 3. Comparison of postoperative pain on POD 3

Pain on POD3	N	Mean	SD	Median	Quartile range	Min	Max	Mann-Whitney U test	p level
Lap	50	1.13	0.58	1.13	0.85	0.09	1.97	312	1.000
Open	50	1.36	0.97	1.22	1.38	0	3	Difference is NOT significant	

Conclusion: The laparoscopic approach offers advantages in terms of lesser postoperative pain and analgesic requirements as well as a

significantly early return to work. The incidence of chronic debilitating pain is also significantly lower than with open mesh repair. It offers the advantage of examining the opposite side for the presence of a small hernia sac. In cases of recurrent hernia, following previous open mesh repair, the laparoscopic approach allows access to the hernial site without going through scarred tissues or mesh.

The laparoscopic procedure however requires significantly longer operating time at least in unilateral cases. However, the operating time in bilateral cases is not significantly different. The laparoscopic procedure also has a long learning curve and surgeons with greater experience with the procedure are able to have shorter operating times as well as fewer complications.

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