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General Surgery

A PROSPECTIVE STUDY ON MANAGEMENT OF RECCURENT INGUINAL HERNIAS

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ABSTRACT

BACKGROUND : Recurrent inguinal hernias are still relatively common in our practice. Despite the introduction of several therapeutic improvements, recurrent hernias still appear in 3-5%. Therefore the reasons and its management are discussing in a more fundamental way. It is assuming that a failure mainly depends on the quality of the repair.

AIM: The study aimed to review and assess the management of recurrent inguinal hernia with different approaches available and to evaluate the post-operative complications.

METHODOLOGY : The prospective study was conducted over 60 male patients with recurrent inguinal hernia. During the period of June 2017 to January 2019.

RESULTS: A total of 60 male patients underwent operation in are group 40 to 60yrs of which 35 underwent open inguinal hernioplasty. 18 were bilateral stoppa repair and 3 underwent TEP and 4 underwent TAPP. Time taken for laparoscopic approach is greater than stoppas is greater than open inguinal hernia. In comparing the above and the follow up patients at 3, 6, 12 months two recurrences are seen with stoppas and no recurrences with TAPP and TEP and no recurrence with open hernioplasty. But the pain is more in open hernioplasty on compared to stoppas and laparoscopic repair.

CONCLUSION: Laparoscopic and stoppas took more operative time and requires skill than open inguinal hernioplasty which has obscure anatomy, but the results were good with those approaches.

KEYWORDS : Recurrent Hernia, Stoppas, TEP, TAPP, Seroma.

INTRODUCTION

- Recurrent hernias are still relatively common in our practice. Despite the introduction of several therapeutic improvements, recurrent hernias still appear in 3-5 %. The reasons for recurrence and its management are discussed in a fundamental way.
- A failure may depend mainly on the quality of the repair and also the underlying risk factor.
- Hernia recurrences are usually caused by technical factors, such as excessive tension on the repair, missed hernias, failure to include an adequate musculoaponeurotic margin in the repair, and improper mesh size and placement .
- Recurrence also can result from failure to close a patulous internal inguinal, the size of which is always assessed at the conclusion of the primary surgery.
- Recurrences are more common in patients with direct hernias usually involve the floor of the inguinal canal near the pubic tubercle where the suture line tension is greatest.
- Considering the configuration of outcome curves of patients with hernia disease, it may therefore be insufficient to explain a recurrence just by bad technical repair. Furthermore the quality of life and chances for employment are reduced in patients suffering from recurrent hernias.

The present study aimed to review and assess the causes and different approaches for the management of recurrent inguinal hernias and their follow up.

METHODS

- The prospective study was carried out by Department of General Surgery, MGM Hospital, Warangal, Telangana between June 2017 to January 2019. 60 male patients were chosen in the age group 40-60 years with clinical diagnosis recurrent inguinal hernia whose age, history of previous surgery recorded. All patients were explained about the treatment plan and method of procedure and their consent taken. Follow up visits were performed at 3,6,12 months for any recurrence and pain.

INCLUSION CRITERIA

- All were male patients in the age group of 40-60yrs.
- Unilateral recurrent hernias and bilateral hernias in which one side is recurrent inguinal hernia taken and bilateral recurrent hernias were taken.
- All are electively done cases.

EXCLUSION CRITERIA

- Obstructive, Irreducible, Strangulated inguinal hernias were excluded from the study.

RESULTS

- 60 patients of recurrent inguinal hernia were treated during the study period in MGM Hospital. The previous surgeries for hernia repair were 20 herniorrhaphy[33%] and 40 were hernioplasty[67%]. The predisposing factors for hernia recurrence in the patients were elicited in table [1].

Table-1

S. No.	Risk Factors	Frequency	Percentage
1.	Wound infection	12	20.00%
2.	Over weight (BMI>25)	28	46.60%
3.	Smoking	35	58.30%
4.	Heavy weight lifting	16	26.60%
5.	Prostatism	4	6.67%
6	Chronic constipation	9	15.00%

- The presentation of the recurrent hernia were more on the right side followed by the left side and elicited in the table [2].

Table-2

S. No.	Site of Hernia	Frequency	Percentage
1.	Right recurrent	26	43.3%
2.	Left recurrent	16	26.6%
3.	Bilateral recurrent	8	13.3%
4.	Bilateral hernia with unilateral recurrence	10	16.6%

- 35 cases were underwent open hernioplasty with prosthetic mesh [Lichtenstein tension free mesh hernioplasty] and 18 underwent

stoppa's through lower midline incision and 4 TAPP and 3 TEP.

- The mean operability time for each procedure is mentioned in table [3]. Open hernioplasty takes less time than stoppa's than laparoscopic procedure

MEAN OPERATIVE TIME FOR SURGERY

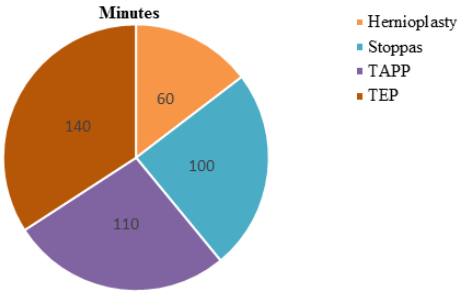


Table-3

S. No.	Operative Procedure	Time
1.	Hernioplasty	60 min
2.	Stoppa's(GPRVS)	100 min
3.	TAPP	110 min
4.	TEP	140 min

- The early post-operative complications were elicited in table [4].
- Seroma being the most common over all, followed by cord and testicular pain

Table-4

S. No.	Early Post-Operative Complications	Hernioplasty [35]	Stoppa [18]	Laparoscopic [7]
1.	Seroma	7(20%)	3(16.6%)	-
2.	Haematoma	-	-	-
3.	Wound infection	2(5.7%)	-	-
4.	Cord and testicular complications	4(11.4%)	-	-

- The early mobilisation of patient and less hospital stay is with Laparoscopy followed by Open followed by stoppa's procedure.
- The follow up of the patients is done in 3,6,12 month's, with pain being the most common complaint during the each visit, which is more in open hernioplasty than stoppa's than Laparoscopy. There were 2 recurrences with stoppa's at the presentation of 3 month both on left side and no recurrences with open hernioplasty and laparoscopy. The follow up elicits in table-[5].

Table-5

S. No.	Procedure	Complaints	3 Months	6 Months	12 Months
1.	HERNIOPLASTY [35]	Recurrence	_	_	_
		Pain	6(17.14%)	3(8.57%)	3(8.57%)
2.	STOPPAS [18] [GPRVS]	Recurrence	2(11.11%)	_	
		Pain	2(11.11%)	_	_
3.	TAP and TEPP [7]	Recurrence	_	_	_
		Pain	_	_	_

DISCUSSION

- History stands out as witness, that through the ages, hernias have been the 'bugbane' to mankind. Failed hernias continue to torment the patients, humiliates their surgeons mercilessly.
- 60 patients with recurrent inguinal hernia in which 20 underwent herniorrhaphy and 40 underwent hernioplasty, previously were chosen and planned electively for surgery. While operating the open hernioplasty, those who undergone hernioplasty previously , the anatomy was obscured and there is difficult while doing meshplasty, than who have undergone herniorrhaphy.
- During the open hernioplasty for recurrent cases, most of the cases seen with mesh migration(78%), followed by inadequate mesh size.
- In cases with patulous deep ring, lytles repair along with meshplasty done.

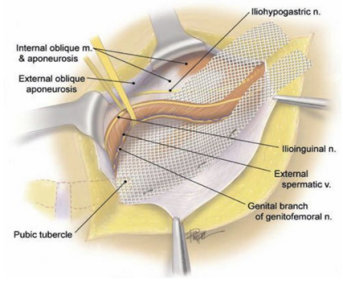
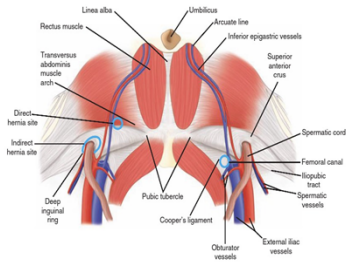


Figure 37-18. Lichtenstein tension-free hernioplasty. m. = muscle; n. = nerve; v. = vein.

- Orchidectomy is done in 5 patients because of difficulty in separating the recurrent sac due to dense adhesions with the cord because of previous meshplasty.
- In stoppas[GPRVS] has advantage of inspection of all potential abdominal hernial sites, reduces the risk of nerve injury, neuralgia, orchitis, testicular atrophy and chronic pain. This is a virgin space typically intact during repair of recurrent hernias which greatly facilitates the procedure. In our study 18 cases were operated by stoppas, the mean time is 100min and peritoneal breach is most common intra-operative trouble seen in 6 cases. Recurrence is noted in 2 patients at 3month.

LAPAROSCOPIC APPROACH [TEP and TAPP]

- In TEP and TAPP, there is no statical difference between both when considering the outcome in operation, haematoma, length of stay in hospital and return to usual activity and recurrence. In our study, no recurrences were seen and no intra-operative and post operative complications seen.
- But the mean operative time is more in TEP>TAPP.



3. Anatomy of the groin region from the posterior perspective.

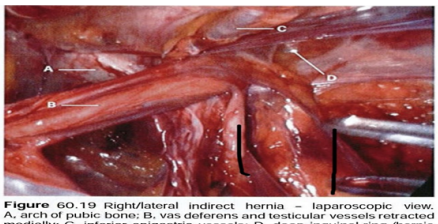


Figure 60.19 Right/lateral indirect hernia – laparoscopic view. A, arch of pubic bone; B, vas deferens and testicular vessels retracted medially; C, inferior epigastric vessels; D, deep inguinal ring (hernia defect).

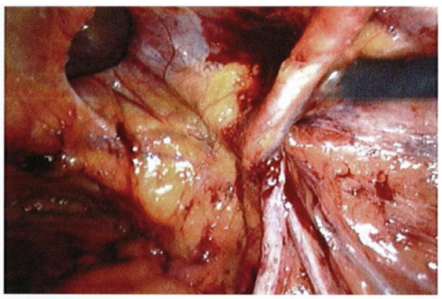


Figure 60.18 Right/medial direct hernia – laparoscopic view. Note the medial (direct) defect upper left, the inferior epigastric vessels upper right and the structures of the spermatic cord lower right.

CONCLUSION

From the present study,

- The wound infection and chronic pain is more with inguinal approach but no recurrences seen and has less operative time, but more obscure anatomy is seen.
- Stoppas took more time and requires good skill. It has good plane of dissection and it covers the other hernias also but, seroma and

recurrence are seen with it.
- Laparoscopic approach require more skill and good operating unit and it is expensive and learning is long but has excellent results.
- Lichtenstein tension free meshplasty still the gold standard procedure.
- Laparoscopic procedure has the more satisfying results.

RECOMMENDATIONS

- Before any surgical operations , reduction of weight and stoppage of smoking should be encouraged when appropriate.
- Future studies need to have larger sample size to determine the age , molecular biological study, financial cost and work abstance in the development of recurrent hernias.

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