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General Surgery

A COMPARATIVE STUDY OF LATERAL INTERNAL SPHINCTEROTOMY WITH FISSURECTOMY VS WITHOUT FISSURECTOMY IN FISSURE IN ANO IN A TERTIARY CARE HOSPITAL.

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ABSTRACT An anal fissure is defined as a longitudinal split in the distal anoderm which extends from the anal verge to the dentate line. A high percentage of acute fissures heal spontaneously within three weeks with conservative medical management comprising of a high fibre diet, warm sitz bath, and topical analgesic with steroids. The lateral internal sphincterotomy (LIS) is one of the most practiced treatments for chronic anal fissure. Nonetheless, anal incontinence is one of the worrisome complications of LIS. Fissurectomy is one of the options among those techniques which address the issues with LIS. The present study was conducted to compare the outcomes of lateral internal sphincterotomy with fissurectomy and lateral internal sphincterotomy in the treatment of chronic anal fissure and compare recurrence and postoperative complications among both the procedures.

KEYWORDS : DENTATE LINE, ANAL FISSURE, INTERNAL SPHINCTEROTOMY, FISSURECTOMY, POST OPERATIVE COMPLICATIONS.

AIM OF THE STUDY:
A comparative study on lateral internal sphincterotomy with fissurectomy vs without fissurectomy in fissure in ano in a tertiary care hospital.

OBJECTIVES OF THE STUDY:
Comparison of internal sphincterotomy with fissurectomy vs without fissurectomy in context with:

1. Post operative complications.
2. Duration of pain relief.
3. Duration of wound healing.
4. Duration of hospital stay.

MATERIALS AND METHODS:
Study design- A Prospective study.
Sample size- 60 cases.

Inclusion criteria-
1. Age >18 yrs.
2. With fissure situated midline, Posteriorly or anteriorly or both.
3. Fissures associated with pain, spasm of anal sphincter, hypertrophied anal papilla and sentinel pile.

Exclusion criteria-
1. Fissure in ano other than midline.
2. Patients with tuberculosis, Crohn's, and AIDS.
3. Fissure with complications like abscess or fistula formation or recurrence.
4. Fissure associated with visible haemorrhoids, malignancies.
5. Pregnant women, children, and handicapped patients.

Source of study sample- Patients who are admitted with fissure in ano at Osmania general hospital.

PRE-OPERATIVE EVALUATION:
Patients with chronic anal fissure were admitted in respective surgical units. Most of the fissure were in posterior midline. They were thoroughly evaluated by doing all basic investigations like (Complete blood picture, Random blood sugars, Renal function tests, Serum electrolytes, clotting time, Bleeding time, Blood group typing, HIV, HBV, ECG, Chest Xray, USG ABDOMEN AND PELVIS). Examination of anal region was done. Proctoscopic examination done to visualize the fissure and associated haemorrhoids if any. Those patients fitting in the inclusion criteria were planned for surgery after anaesthetic assessment. Patients under the study are divided in to two groups randomly i.e., GROUP -A, GROUP -B.

In Group -A - Lateral internal sphincterotomy with fissurectomy.
In Group -B - Lateral internal sphincterotomy without fissurectomy.

PREOPERATIVE PREPARATION:
Patients posted for surgery were put on liquid diet 24 hrs before surgery. They were put on nil by mouth 10 hrs before surgery. Patients were administered soap and water enema on previous night and the morning of surgery.

OPERATIVE PROCEDURE:
Either of two were carried out after obtaining informed consent.

A. LATERAL INTERNAL SPHINCTEROTOMY WITH FISSURECTOMY
The patient was placed in lithotomy position. A 1 to 2 cm incision was done starting from the left side of the anal in to the perianal skin through the intersphincteric groove. The free lower edge of the internal sphincter was then grasped, drawn in to the wound and its distal portion was divided. The wound left open. Then the fissure and sentinel piles were excised. Tight T bandage was applied after dressing.

B. LATERAL INTERNAL SPHINCTEROTOMY WITHOUT FISSURECTOMY
The patient was placed in lithotomy position. A 1 to 2 cm incision was done starting from the left side of the anal in to the perianal skin through the intersphincteric groove. The free lower edge of the internal sphincter was then grasped, drawn in to the wound and its distal portion was divided. wound left open. Tight T bandage was applied after dressing.

POST OPERATIVE CARE:
Both group of patients encouraged to resume oral feeding after 6hrs of surgery. Non opioid analgesics were given to all patients. Pain was assessed using visual analogue scale (VAS). pain was considered severe when VAS >5.

Table -1 VISUALANALOG SCALE

VISUAL ANALOG SCALE	CHARACTERISTICS
0	NO PAIN
5	MODERATE PAIN
10	SEVERE PAIN

Data concerning the two groups were: Complications such as urinary retention, bleeding were watched for and recorded, dressing was removed on first POD. They were started on normal diet. Lactulose 20 ml once daily was started on 2nd POD and continued for two weeks. Warm sits bath was advised and bulking agents were prescribed.

Discharge: Patients are allowed to go home when fully comfortable on oral analgesics, fully mobile, and tolerating normal diet.

Follow up: patients follow up done on outpatient basis, the visit was scheduled within one week. The second visit scheduled on every subsequent week till eighth week. Further follow up was scheduled 6weeks after the previous visit. This was to be followed by monthly visit. During each visit enquiries were made regarding the expected complications. Patients were also examined to rule out ano rectal sepsis, incontinence to flatus and faecal soiling and stenosis. Results of follow up were tabulated and analysed.

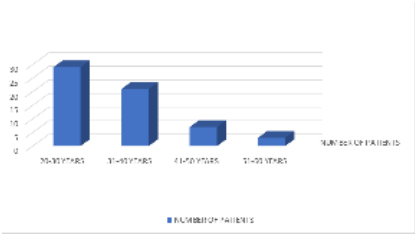
Analysis: The data collected was tabulated, calculated, evaluated, and analysed.

Results: Sixty patients with various symptoms of chronic fissure in ano attending surgery opd and/or admitted in Osmania general hospital were taken for study. Thirty patients in each group were studied on randomized basis. All the data were analysed as per the proforma sheet.

OBSERVATIONS AND RESULTS

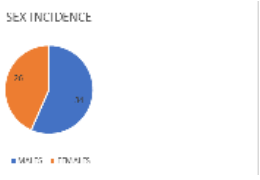
1. AGE INCIDENCE:

In our study 29 patients out of 60 belonged to age group 20-30 (48.3%). 21 (35%) between the age group 31-40, 7 (11.6%) in the age group 41-50 and 3 (5%) in age group 51-60.



2.SEX INCIDENCE:

In our study of 60 patients, 34 patients were males and 26 patients were females. Male female ratio being 1.4:1.



3. SITE OF FISSURE:

In our study of 60 cases, anterior fissure was seen in 4 patients (6.6%) and posterior fissure in 56 (93.3%) patients.

4. ASSOCIATED FACTORS:

Majority of the patients who had fissure for long duration had sentinel skin tag along the lower part of the fissure and hypertrophied papilla in the upper part.

ASSOCIATED FACTORS	NUMBER OF PATIENTS	PERCENTAGE
Sentinel skin tag	49	81.6%
Hypertrophied papilla	8	13.3%
both	3	5%

5. DISTRIBUTION OF PRESENTING SYMPTOMS:

In our study of 60 cases, the main symptom was pain which was found in all patients.

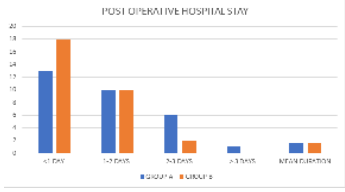
SYMPTOMS	NUMBER OF PATIENTS	PERCENTAGE
Pain and bleeding	12	20%
Pain and constipation	6	10%
Pain with bleeding and constipation	42	70%

6. POST OPERATIVE COMPLICATIONS:

In comparison between the two groups, post operative infections and urinary retention, bleeding, bruising is more common in Group A, while recurrence is more common in Group B. Abscess, Incontinence, fistula formation was not found.

POST OPERATIVE COMPLICATIONS	LIS WITH FISSURECTOMY	LIS	O. R (95% C.I)	P VALUE
INFECTION	09	03	3.8	0.1
BLEEDING	05	02	2.8	0.4
BRUISING	03	01	3.2	0.6
URINARY RETENTION	05	02	2.8	0.4
RECURRENCE	0	02	0	0.49

7. COMPARISON OF POST OPERATIVE HOSPITAL STAY IN BOTH GROUPS

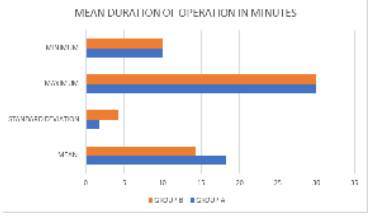


8. PAIN RELIEF

The patients were evaluated for the relief in pain after the 1st, 2nd, 4th, and 6th week following surgery. The patient's response towards the treatment and the status of their complaints was assessed.

DURATION FOR PAIN RELIEF IN WEEKS	GROUP A	GROUP B
FIRST WEEK	14	20
SECOND WEEK	10	6
FOURTH WEEK	4	3
SIXTH WEEK	2	1
MEAN DURATION	2.06	0.4
STANDARD DEVIATION	1.66	0.2

9. MEAN DURATION OF OPERATION IN BOTH GROUPS



CONCLUSION:

- Anal fissure is a disease of young adult and pain is the most common presentation.
- Surgical treatment can be considered as safe procedure with excellent results in patients with the chronic anal fissure.
- In this study males were more commonly affected than females.
- The most common age group affected were 20-30 years.
- Majority of the patients presented with pain, bleeding and constipation.
- Constipation was the major predisposing factor among all cases.
- Most of the fissure located in the posterior midline. Most of the fissures of long duration had sentinel skin tag and hypertrophied papilla.
- Post operative complications like Infection, bleeding, bruising, urinary retention are common in Lateral internal sphincterotomy with fissurectomy group than lateral internal sphincterotomy group, but during follow up recurrence were seen in 2 cases in lateral internal sphincterotomy group.

- Patients who treated surgically by Lateral internal sphincterotomy had better relief of symptoms like early discharge, early pain relief and early wound healing compared to the other group.
- Also the mean duration for surgery is comparatively more in Group A than Group B.
- In the present study, it was found that Lateral internal sphincterotomy was a better treatment option for chronic anal fissure than Lateral internal sphincterotomy with fissurectomy
- The post operative complications were less in Group B than Group A. But the recurrence was high in Group B. As the sample size is small, further studies are needed to establish the conclusion.

REFERENCES

1. Nelson R: Operative procedures in fissure in ano. Cochrane data base sys Rev(2):CD002199,2005.
2. Elsebae MM: A study of fecal incontinence in patients with chronic anal fissure: prospective, randomized controlled trial of the extent of internal anal sphincter division during lateral sphincterotomy.
3. Hughes ES: anal fissure. Br Med J 2:803,1953.
4. Eisenhammer S: the evaluation of internal anal sphincterotomy operation with special reference to anal fissure. Surg Gynecol Obstet 109:583,1959
5. Dziki A, Trzcinski R, Langner E, Wronski W: New approaches to the treatment of anal fissure. Acta Chir Iugosl. 2002, 49:73-5. 10.2298/aci0202073