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A Case Series Study on Outcome of Lateral Internal Sphincterotomy for Chronic Anal Fissure

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Lateral internal sphincterotomy cures chronic anal fissure by preventing internal sphincter hypertonia. However, cutting sphincter predisposes to sphincter dysfunction, manifests as incontinence of gas, liquid, or stool.[1] Surgeons, therefore, can be too cautious in its use, making ineffective superficial incisions or avoiding the operation altogether.

MATERIALS AND METHODS

A case series of 50 patients at the Surgery Department of Government Dharmapuri Medical College and Hospital over a period of 1Year that included cases of chronic fissure-in-ano in the age group of 18 yrs and above for surgical management.

RESULTS

The pain relief of the patients after this operation was fast and very satisfactory. On followup at 2 weeks post-operatively, pain and other symptoms were present in only 10 patients . On followup at 8 weeks post-operatively, all the 50 patients were symptom free (100%) in this study. The complications that were observed during this study were soiling and incontinence to flatus in 1 patient (2%). There was no recurrence of anal fissure observed in this study group.

CONCLUSION

From the above study, it is proved that lateral internal sphincterotomy is by far the best operation for fissure-in-ano.

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I. Background

Perianal pain forms majority of patients in any surgical OPD.Patient presents with lots of pain. Anal fissure can be defined as ulcer in the long axis of lower anal canal.Chronicity of a fissure relates to duration of greater than 6 weeks[2]. Most fissures occur in the posterior midline[3]. It is anatomically related because as there is a lack of tissue support posteriorly within the anal canal.

In pregnancy, fissures are found anteriorly. Other causes includes crohns disease, syphilis, HIV or tuberculosis. They are called as secondary fissures. the exact etiology of primary fissure is unknown.

Objectives

To find out the effectiveness of lateral internal sphincterotomy in anal fissure.

II. Materials And Methods

INCLUSION CRITERIA

Study was carried out on patients aged 18 yrs. and above,who were diagnosed clinically as anal fissure and attendedthe surgery outpatient clinic.

EXCLUSION CRITERIA

- Patient on Long-term steroids,
- AIDs,
- Diabetes
- Crohn's disease

III. Methodology

This retrospective study was carried out as a Case Series of 50 patients at surgery department of government Dharmapuri medical college and Hospital over a period of 1year that included cases of anal fissure in the age group of 18 years and above.

Case definition of anal fissure was

- Evidence of posteriorly placed ulcer with a large sentinel tag of skin.

- Symptoms such as post defecatory or nocturnal pain,bleeding or both and pruritus ani lasting for more than 2months and constipation.

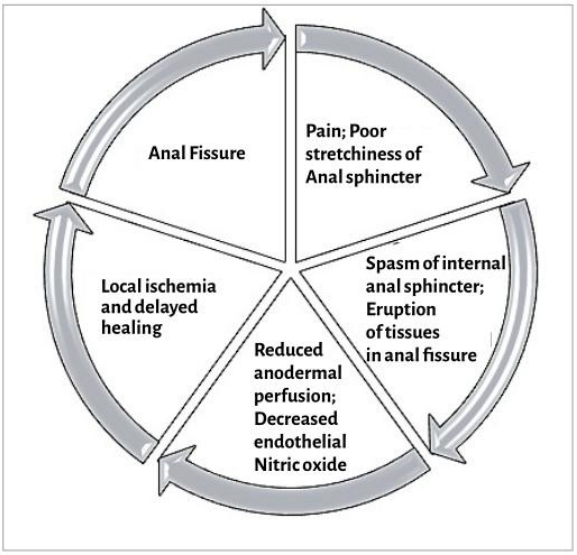

FIG1.PATHOGENESIS OF ANAL FISSURE

Each patient in the study was informed in detail about the aim of the study and the type of the procedure.A fully informed written consent was obtained from him/ her prior to the study.Appropriate ethical committee approval was taken.First a conservative trial was given to all the patients of anal fissure with either diltiazem or nitroglycerin ointment. Patients with persistent fissure at the end ofthe treatment with diltiazem or nitroglycerin were subjected to lateral internal sphincterotomy[4].All patients subjected to lateral internal sphincterotomy were treated by the same surgeons using uniform method of lateral sphincterotomy in the lithotomy position (surgical procedure is mentioned later).All patients received stool softeners, daily sitz bath and fibre supplement diet.All the patients were followed up at 2 weeks interval for 8 weeks. In each followup visit, the patients were evaluated for the criteria mentioned later.All the patients were informed to report SOS in case of any side effects or adverse effects.All patients were followed up for three months for evidence of recurrence of the fissure and the presence of possible side effects.The complications of surgery in relation to incontinenc and recurrence were observed only within the timeframe of this study. The other postoperative complications, e.g. soilage, pain and bleeding were studied.In our setup, anal manometry was not possible[5].All patients who underwent surgery received spinal or general anesthesia

Operative procedure (Lateral Internal AnalSphincterotomy).

This procedure was carried out under spinal anaesthesia or general anaesthesia in all the patients. Once in lithotomy position, 5 mL of 2% lignocaine +adrenaline was injected at the proposed site of incision at either 3 or 9'o clock position in the intersphincteric plane.This facilitated bloodless dissection. A transverse incision was made at 3 or 9'o clock position and blunt dissection wascarried out in the plane between internal and external sphincters. The internal sphincter was dissected away from anal mucosa[6]. Once free in both planes, the sphincter was grasped between two haemostats and was brought on to the surface of wound. The haemostats were kept for 30 seconds and lower half of sphincter (~ 1 cm) was divided with the help of scissors. The wound was left open and a small wick was placed to control oozing. The dressing was removed on first postop day after sitz bath[7]. Patients were discharged on second postop day with advice to have sitz bath for two weeks.

IV. Results

Signs / symptoms of patients

Signs /symptoms	No. Of patients	Percentage
Pain during defecation	46	92
Per rectal bleeding	39	78
Chronic constipation	34	68

Results of pain relief

Weeks	No. Of patients	Percentage
1st week	29	58
3rd week	40	80
5th week	45	90
8th week	48	96

Age distribution

Age group(years)	No. of operated patients	Percentage
<20	2	4
21-30	18	36
31-40	13	26
41-50	8	16
51-60	5	10
>60	4	8

Post op complications

Complications	No. of patients	Percentage
Per rectal bleeding	13	26
Wound infection	3	6
Temporary Incontinence to flatus	1	2
Temporary Incontinence to stool	0	0
Permanent Incontinence to flatus/stool	0	0

V. Discussion

The main aim of lateral internal sphincterotomy is to reduce the spasm of internal sphincter thereby increasing the blood flow to the anoderm. The most common age group affected in our study is 21-30years. It is due to decrease in consumption of high fibre diet and change in dietary habit[8]. Males are commonly affected. 96% of the patients reported complete pain relief in the 8th week. The most common complication noted in our study is per rectal bleeding while defecating for the first 2-4days. 6% patients who got wound infection responded to IV antibiotics. In our study only one patient had temporary incontinence to flatus. Fecal incontinence one of the dreaded complication may last several weeks upto a year and it depends on many factors. Study done by E-Ram et al had shown a recurrence rate of 2% with average follow up of 11.2months.[9]

Limitations

Our study is a single centre study with small sample size. Large sample randomized control trials is recommended. Anal manometry and comparison with other methods must be done and follow up must be done more than one year.

VI. Conclusion

Subcutaneous lateral internal partial sphincterotomy is safe and a very effective technique in the management of chronic anal fissure

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