



WHETHER SURGERY ACTUALLY NEEDED FOR FISSURE IN ANO?

Surgery

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ABSTRACT

Aim: To evaluate conservative management as first line of management for fissure in ano

Objective: 1-To study the efficacy of conservative management and operative management

Material and Methods: 200 patients with symptoms of fissure in ano studied. Detailed history and thorough clinical examination of these patients was carried out. Conservative management with 0.3% nifedipine was used for local application and response assessed once every two weeks for a total of six months. Visual analogue scoring was used to assess pain. Lateral sphincterotomy was performed on patients not responding to conservative management.

Result: A total of 190 patients conservatively managed of which 11 had recurrence of symptoms. Ten patients needed surgery.

Conclusion: 0.3% nifedipine therapy should be advocated as the first line of treatment for anal fissures, cost effective treatment and surgery restricted for cases resistant to medical management

KEYWORDS

Fissure in ano; 0.3% Nifedipine; Lateral sphincterotomy

INTRODUCTION:

Fissure in ano is as old as mankind. Surgical treatment of this condition was known even during Vedic times. Sushruta traced the muring or origin of fissure to the "pitta" or the abscess in the anal region. Anal fissure is a distressing problem faced by a patient. It is one of the *commonest* cases presenting to the surgical OPD. Anal fissure is a longitudinal tear or ulcerated area on the distal anal canal, usually in the posterior or anterior midline and extending from the level of the dentate line out to the anal verge. The clinical hallmark of anal fissure is *pain* during, and especially after, defecation. The pain is often severe enough for patients to dread or even attempt to avoid bowel movements altogether. Patients can experience *rectal bleeding*, usually consisting of small quantities of fresh red blood. There has been a lot of progress in the understanding of the anatomy of the anal canal and the mechanism of continence of rectum and anal canal. This has enabled the surgeon to deal with the fissure, keeping the spastic anorectal ring intact, without interfering with continence and eradicating the disease. Surgical techniques like manual anal dilatation or *lateral internal sphincterotomy*, effectively heal most fissures within a few weeks, but may result in permanently impaired anal continence. This has led to the research for *alternative non-surgical treatment*, and various pharmacological agents have been shown to lower resting anal pressure and heal fissures without threatening anal continence¹. The present study comprises the use of *conservative management as the first line of therapy* to all the patients presenting with a fissure in ano.

MATERIAL AND METHODS:

Methods of Collection of Data

- Institutional *ethical committee approval* was obtained before the study was started.
- History of the patients was noted.
- Clinical examination was done to confirm fissure in ano.

Inclusion Criteria

Patients of both sexes, surgical out patients and/or admitted patients with symptoms of fissure in ano.

Exclusion Criteria

- Patients presenting with associated Hemorrhoids
- Fistula
- Ca Rectum
- Rectal Polyps

200 patients with symptoms of fissure in ano were studied. A detailed history was noted and clinical examination of these patients was carried out. *Visual analogue score* was used to assess pain in these patients.

Patients received the first line of conservative management as follows:

- Antibiotic (Metronidazole 400mg),
- Antacid (Pantoprazole 40mg),
- Stool softener (Paraffin syrup),
- Sitz bath with potassium permanganate,
- *Anobliss* (Nifedipine + lidocaine) ointment for local application,
- High fiber diet,
- Plenty of oral fluids.

This initial line of management was given for fifteen days, after which patients were asked to follow up again. Operative management was considered for symptomatic patients who failed conservative management, which included Lateral Sphincterotomy and Sphincterotomy with excision of sentinel tag.

Method of application of 0.3% Nifedipine cream

Patients were advised to apply *1.5 to two cms length* of cream twice daily at least 1.5 cm into the anus. Patients were instructed to *wash hands* before and after use of gel.

Drug details:

Generic name: Nifedipine

Drug Class: Calcium Channel Blocker

Brand name: Anobliss

Composition: Nifedipine (0.3% w/w), Lidocaine (1.5% w/w)

Presentation: 30g tube with applicator.

RESULTS:

In our study of 200 patients, *maximum* number of patients were in the *age group of 41-50*, patients 130 patients were males and 70 patients were females. *Commonest* site observed was *posterior* i.e. *6 o'clock* in the majority of patients followed by 12 o'clock. 171 patients gave history of *bleeding per rectum* (Table-1)

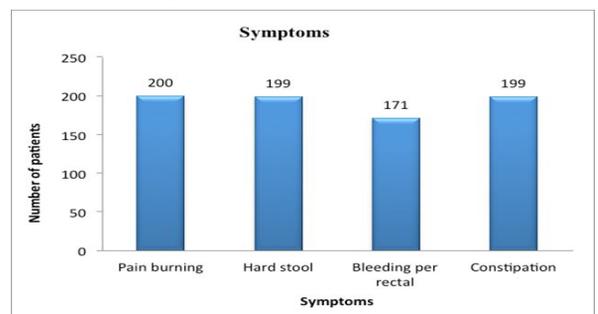


Table-1 Symptoms

Using the Visual Analogue Score, pain was assessed (Fig-1)

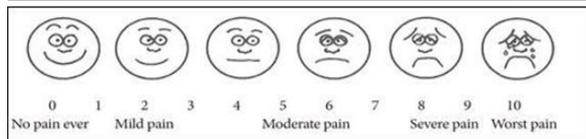


Fig - 1 VAS

Follow up was done at 15 days, 30 days and six months. 10 patients who did not have relief after conservative treatment at day 30 were taken up for lateral sphincterotomy (Fig -2)

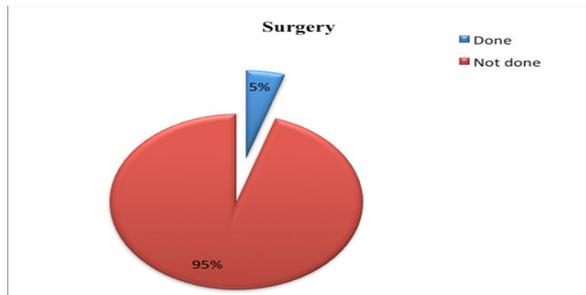


Fig-2 Patients requiring surgery

Out of all patients on conservative management, 11 patients had recurrence over a follow up period of six months. Patients undergoing surgical management did not show any evidence of recurrence

By using Mann-Whitney U test p-value < 0.05, therefore there is a significant difference between VAS scores or patients who required surgery and patients who did not require surgery at 1st visit as well as after 30 days (Table - 2)

Table - 2 Patients requiring surgery n 1st and after days follow-up

		Pain score							Total	
		0	1	2	3	4	5	6		7
1st Visit	Surgery required	0	0	0	0	0	2	7	1	10
	Surgery not required	0	0	9	35	86	60	0	0	190
After 30 days	Surgery required	0	0	0	7	3	0	0	0	10
	Surgery not required	110	54	8	0	0	0	0	0	172

By using Wilcoxon sign rank test p-value < 0.05, therefore there is a significant difference between VAS at 1st visit and after 30 days (Table-3)

	At 1st visit	After 30 days
0	0	110
1	0	54
2	9	8
3	35	7
4	86	3
5	62	0
6	7	0
7	1	0
Total	200	182
	Median VAS	P- value
At 1st visit	4	<0.001
After 30 days	0	

Table - 3 Difference in VAS score

DISCUSSION:

Anal fissure is a very common problem across the world and it adversely affects the quality of life of a patient. Lateral internal sphincterotomy is a standard in the treatment of chronic anal fissures. It involves partial division of the internal anal sphincter away from the fissure. Calcium channel blockers have been shown to lower resting anal pressure [2] and promote fissure healing and chemical sphincterotomy is now the first line of treatment in many centers [3,4]. In this study all 200 patients who presented with fissure in ano to the opd were given conservative management with 0.3% Nifedipine initially and were followed up at 15 days, 30 days and at six months, patients who were symptom free based upon the clinical examination and VAS score later were labelled as conservatively treated. Patients who did not respond to conservative management were subjected to surgery and they were also followed up for complications. The commonest age

group affected was 41-50 years and ≤ 20 years were 12 patients and ≥ 60 were 20 patients. According to Cross KLR, Massey EJD, Fowler AL and Monson JRT Anal fissure is common, occurring mostly between the second and fourth decades of life with a lifetime incidence of 11%. The incidence of fissure in males was slightly greater than females. It is confirmed by a study from Bennett and Goligher [5] (1962) which says anal fissure is equally common in the two sexes. In this study posterior midline fissure (60%) was more common than anterior midline fissure (18%). It has been observed that posterior fissure is more common in both sexes. This was confirmed by study from Boulous P.B. and Araujo J.G.C. [6] (1984) which says posterior fissure (85.7%) is more common than anterior fissure (14.2%). All 200 patients subjected to conservative management were given 0.3% Nifedipine for local application. Out of the 200 patients, 190 (95%) patients were managed conservatively and in 10 (5%) patient surgery (lateral sphincterotomy) had to be done in who symptoms were still persistent after conservative management, total 39 patients were lost to follow up at the end of six months. In a study conducted by Antropoli C, Perrotti P, Rubino M published in 1999, both oral and topical nifedipine have been shown to reduce anal pressure and promote healing of anal fissures. Topical nifedipine was superior to 1% lidocaine plus 1% hydrocortisone in a randomized multicentre study in 283 patients. Fissure healing was seen in 95% of the nifedipine group vs. 50% of the comparator group. A randomised single-blind study compared topical nifedipine 0.5% with standard therapy using topical lidocaine 2% plus stool softeners for four weeks in 110 patients [7]. After four weeks, healing occurred in 70% of the nifedipine group and 12% of the standard therapy group (p<0.005). At 12 months, recurrence rate for healed patients in the nifedipine group was 26%.

LIMITATIONS:

1. This study focuses on the medical management of anal fissures with topical calcium-channel blocker in adults; Data on the use of this form of therapy in children are very limited.
2. Patients could not be followed up for a longer duration.
3. Patients who were lost to follow up could have been applying Nifedipine on its own or they might have changed the doctor after initial treatment of 15 day.

CONCLUSION:

The conclusion, though lateral sphincterotomy is the current standard treatment; many fissures heals with topical 0.3% Nifedipine therapy.

1. Side effects of Nifedipine cream are minimal. In contrast with surgery, chemical sphincterotomy is reversible and therefore unlikely to have adverse effects on continence.
2. Hypertensive, diabetic and medically unfit patients for surgery can be recommended with Nifedipine. Though the fissure healing rate is comparatively slow with Nifedipine, patients can avoid surgical trauma. The hospital stay not required. Treatment works out to be very cost effective.
3. Topical 0.3% Nifedipine should be advocated as the first option of treatment for anal fissure.
4. Lateral sphincterotomy should be offered to patients with relapse and therapeutic failure of prior pharmacological treatment.

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