ANAL FISSURE;
SURGICAL MANAGEMENT

ORIGINAL
PROF-1965

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ABSTRACT... Objective: To know the outcome of treatment of chronic anal fissure. **Setting:** Nishtar Hospital, Multan. **Period:** January 2011 to June 2011. **Material and methods:** A total of 100 patients attending surgical OPD were included in the study. **Results:** Out of 100 patients, 73 (73%) were male and 27 (27%) were female patients. Majority of the patients were from the age group 31-40 years. At posterior midline fissure in ano was present in 91 (91%) patients and at the anterior midline it was in 9 (9%). Pain defecation was seen in all patients, constipation in 95 (95%) patients whereas bleeding from rectum in 72 (72%) patients. **Conclusions:** It is concluded that in patients with chronic anal fissure, chemical sphincterotomy with topical nifedipine ointment is a non-invasive and effective modality.

Key words: Dentate line, Sphincterotomy, defecation.

INTRODUCTION

The lateral internal sphincterotomy is the gold standard for the operative management of an anal fissure secondary to hypertonicity or hypertrophy of the internal anal sphincter[1,2,3]. The goal of surgical therapy is to relax the internal anal sphincter, provide symptomatic relief, and heal the fissure.

The fibres of the internal anal sphincter are visible in the base of the chronic fissure and often an enlarged anal skin tag is present in the anal canal proximal to the fissure[4]. If the fissure persists over time, it progresses to a chronic fissure that can be distinguished by its classic features.

The conventional treatment of anal fissure is lateral sphincterotomy. The alternative options of tailored sphincterotomy and chemical sphincterotomy using medication such as nifedipine have recently become available[5]. The use of glyceryl trinitrate induces rapid healing of anal fissure with a 72% healing rate in one study[6].

Topical application of 0.5% nifedipine ointment represents a new, promising, easily handled, effective alternative to lateral internal spnincterotomy[7]. It appears to offer a significant healing rate for acute anal fissure and might prevent its evolution to chronicity[8]. Closed internal sphincterotomy can be done safely under local anaesthesia in OPD with low complication rate and less postoperative period of stay[9].

OBJECTIVE

To know the outcome of treatment of chronic anal fissure.

MATERIAL AND METHODS

This study was carried out in the Nishtar Hospital, Multan in the department of Surgery from January 2011 to June 2011. A total of 100 patients were included in the study. Patients attending surgical OPD having anal fissure were diagnosed clinically and were selected according to inclusion criteria. All patients were divided into two equal groups (group-A (patients treated surgically, and group-B (treated by topical nifedipine).

RESULTS

Out of 100 patients, 73 (73%) were male and remaining 27 (27%) were female patients (Table-I).

Majority of the patients was falling in age group 31-40 years as shown in table-II.
Fissure in ano was present at posterior midline in 91 (91%) whereas at the anterior midline it was in 9 (9%) patients (Table-III).

Pain on defecation was found in all patients. Constipation

was observed in 95 (95%) patients and bleeding per rectum in 72 (72%) patients (Table-IV).

The patients treated by topical nifedipine complained of headache and used mild analgesic like paracetamole to achieve symptomatic relief. The topical modality proved to be highly significant cost effective as compared to the surgical modality. It has also been observed that more male patients with chronic anal fissure opted for a surgical treatment while the female patients usually resorted to medical management.

Table-I. Sex distribution

Sex	No. of patients	%age
Male	73	73.0
Female	27	27.0

Table-II. Age distribution (n=100)

Age (years)	No. of patients	%age
Upto 30	33	33.0
31-40	54	54.0
41-50	07	07.0
51-60	04	04.0
>60	02	02.0

Table-III. Distribution of patients according to location (n=100)

Location	No. of patients	%age
Posterior midline	91	91.0
Anterior midline	09	09.0

Table-IV. Complications (n=100)

Complication	No. of patients	%age
Pain on defecation	100	100.0
Constipation	95	95.0
Bleeding per rectum	72	72.0

DISCUSSION

Patients were discussed with them regarding surgical and medical option and thus being placed into group-A or B and they were observed in both groups for the efficacy of each type.

Previously patient experienced transient headache while using topical nitrates preparations[10,11,12,13]. In one study, all patients experienced headache and 50% of them used analgesics for symptomatic relief. Headache was also reported as a complication of spinal anesthesia in surgical treatment. There are no such complaints with nifedipine application.

Khalid had excellent results as 100% healing and 0% recurrence with lateral internal sphincterotomy. In this study, comparable results in the local setup were achieved and a low incidence of side effects and lack of complications were observed[14]. Topical modality has a higher recurrence/persistent rate as compared to surgical modality but no severe side effects or permanent sphincter damage results from topical nifedipine application. Patients who tend to avoid or are unfit for surgery, the topical modality is the treatment of choice but lateral internal sphincterotomy remains the gold standard treatment for fissure in ano. The results of present study are comparable with the above mentioned study.

Some other studies have shown healing rate upto 70% by GTN ointment[15,16,17]. This study confirms the results of other similar studies. A healing rate of 64.5%, recurrence rate of 35.7% and persistence of fissure in 33.3% was noted with topical treatment while lateral internal sphincterotomy relieved 100% of cases.

Surgery for anal fissure is associated with few complications, most of which can be prevented by the use of judicious surgical techniques and of course by familiarity with anorectal anatomy. In this study, permanent incontinence of faeces in 7.1% (P<0.045) and transient incontinence of flatus in 64.3% (P<0.000), which resolved by the end of two months was observed. However, the incidence of complications was relatively higher in other studies. Flatus control problems occurred in 35% and soiling in 22%. Abcarian found a flatus

incontinence rate in 30% of patients after lateral sphincterotomy and in 40% of patients after the posterior procedure[18]. In a retrospective study in which patients underwent closed or open lateral sphincterotomy, 21 cases of flatus or liquid incontinence and 18 cases of recurrence of anal fissure as a later complication were observed[19]. In another study, 20% incidence of major complications and 8% incidence of incontinence was reported[20].

Analyzing the efficacy of the medical and surgical modalities on the basis of effectiveness regarding symptom control and side effects, both seem almost comparable. The medical modality takes sometime to prove its effectiveness but it has no side effects and it is low cost and non-invasive. On the other hand surgical modality has a quicker relief but is associated with certain side effects which may be worrisome to some patients, at least for certain duration of time. Hence it is quite justifiable to say that topical nifedipine application is a suitable and reliable alternative to lateral internal anal sphincterotomy in the management of chronic anal fissure. It can be offered confidently as first line of treatment especially in those who tend to avoid an operative procedure.

CONCLUSIONS

It is concluded that in patients with chronic anal fissure chemical sphincterotomy with topical nifedipine ointment is a non-invasive and effective modality.

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