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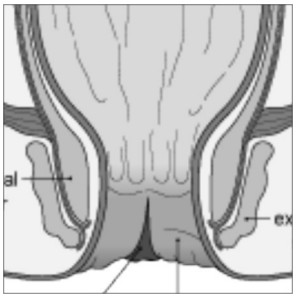
CHRONIC ANAL FISSURE;
OPEN VS CLOSED LATERAL INTERNAL SPHINCTEROTOMY



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ABSTRACT ... dnahm73@yahoo.com **Objectives:** To compare the results of open and closed lateral internal sphincterotomy in the treatment of chronic anal fissure. **Setting:** Department of Surgery, Nishtar Hospital Multan **Period:** From April 2002 to September 2002. **Material and Methods:** The study subject included 50 patients. Twenty five patients underwent closed lateral internal sphincterotomy (CLIS) and remaining were treated by open lateral internal sphincterotomy (OLIS). Follow-up for complications was done for the period of 4 months after the procedure. **Results:** The best results were obtained with closed lateral internal sphincterotomy in which incontinence rate was 24% and recurrence rate 12%. **Conclusion:** Closed lateral internal sphincterotomy is treatment of choice for chronic anal fissure with acceptable complication rate.

Keywords: Closed Lateral Internal Sphincterotomy (CLIS), Open Lateral Internal Sphincterotomy (OLIS), Chronic anal Fissure.

INTRODUCTION

Anal fissure results from longitudinal tear in the squamous epithelium of anal canal.

90% are situated posteriorly and 10% anteriorly[1]. Chronic anal fissure is characterized by skin tag and hypertrophied anal papilla[2].

Hard bowel movements and prolonged diarrhea postulated to be the cause of split in the anoderm[2]. The clinical history is typically cyclical; periods of acute pain are followed by temporary healing only to be followed by further acute pain. Inspection of perianal area is confirmatory in diagnosis. Digital examination is usually not possible because of severe pain.

Lateral internal sphincterotomy emerged as the operation of choice for uncomplicated chronic anal fissure[3]. It is of two types, open and closed. CLIS can be done under local anaesthesia[4] with less postoperative period of stay and complications[5].

MATERIAL AND METHODS

Fifty patients were chosen who presented with features of uncomplicated chronic anal fissure in surgical OPD of Nishtar Hospital Multan from April 2002 to September 2002. Patients were selected randomly.

Patients of ages between 20 and 50 yrs, both genders, having no systemic illness were included. Patients were divided into two groups A and B. Group A included 25 patients who underwent CLIS and were given odd numbers i.e 1,3,5, ----. Group B also included 25 patients, who were treated with OLIS and were given the even numbers i.e. 2,4,6, -----. Surgery was performed under spinal anaesthesia. Preoperative antibiotics were given intravenously in every patient.

In CLIS surgical blade was introduced between internal and external anal sphincter (by palpating intersphincteric groove) at 3,o, clock in lithotomy position. Blade turned inward and sphincterotomy performed by dividing internal anal sphincter up to dentate line. The external wound left open.

In OLIS radial incision was made at the area of intersphincteric groove at 3,o, clock in lithotomy position. The internal sphincter is grasped with Allis forceps and bluntly freed. Internal anal sphincter is divided up to dentate line under vision. Bleeding stopped either by pressure or by applying stitches with chromic catgut. Wound was left open to heal with secondary intention.

In both procedures, the patients were advised to take daily sitz bath. Patients were followed up for a period of 4 months after the procedure.

The results were evaluated and compared. Chi-square test was applied to determine the significance.

RESULTS

Mean age of presentation was 35 years. There were 42 male and 8 female patients with ratio of 5.1:1 respectively. 44 patients (88%) had posterior and 5 patients (10%) had anterior anal fissure 44 patients presented with pain during defecation, which started just before defecation and lasted for few hours after the act. Most of these patients also complained of mild bleeding per rectum. 33 patients complained bleeding per rectum as major symptom. Five patients presented with perineal swelling and one with pruritis ani (Table I).

Table-I. Mode of presentation

Symptoms	No. of Pts	% age
Pain and bleeding	44	88%
Bleeding	33	66%
Perineal swelling	5	10%
Pruritis	1	2%

Table-II. Complication of open lateral sphincterotomy

Complication	No. of Pts	% age
Bleeding	1	4%
perineal abscess	1	4%
Incontinence to flatus	8	32%
Recurrence	3	12%

Table-III. Complication of closed lateral sphincterotomy

Complication	No. of Pts	% age
Bleeding	0	0%
Perineal abscess	1	4%
Incontinence to flatus	6	24%
Recurrence	3	12%

During follow up, in patients treated with OLIS, one patient (4%) complained of bleeding, one (4%) developed perianal abscess, eight (32%) complained of minor

incontinence and three patients (12%) developed recurrence (Table II) .

In patients treated with CLIS, one (4%) developed perineal abscess, six (24%) complained minor incontinence and three patients (12%) presented with recurrence (Table III).

DISCUSSION

In our study 88% patients were presented with painful defecation and 66% with bleeding which were better than 98.8% and 71.4% reported by Hananel et al[5]. In our study male to female ratio is 5.1:1 but Nahas[6] documented 2.3:1.This high percentage of males was due to the fact that most of the female patients avoid presenting to male surgeons for treatment due to shyness or modesty till the symptoms become unbearable. This study favored the reports that anal fissure is common in middle age group. Melange et al[7] reported mean age 45 years. In our study 44(88%) patients presented with posterior midline fissure and 5(10%) patients with anterior anal fissure. Most of the literature presents same findings 90% anal fissures are posterior and 10% anterior.

In our study, when the complication rates of open and closed techniques were compared regarding peri-anal abscess (4 vs 4%), minor incontinence (32 vs24%) and recurrence (12 vs 12%) it was noted that both methods were effective in the treatment of chronic anal fissure. However it is statistically significant that CLIS is better than OLIS (P<0.01). Perkiness, et al reported[8] that complication rate is relatively high in OLIS than CLIS. Garcia et al[9] concluded in their study that CLIS is preferable than OLIS because it provides similar rate of cure with less impairment of control. Kortbeek, et al[10] also reported that CLIS is effective in the treatment of chronic anal fissure with less postoperative complications. Nelson[11] concluded that both techniques are equally effective. Cohen et al[12] are in favor of CLIS especially in children.

CONCLUSIONS

Closed lateral internal sphincterotomy is treatment of choice for chronic anal fissure and can be done effectively and safely with acceptable low rate of complications.

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