

A Comparative Study of Open vs Close Lateral Sphincterotomy in the Management of Chronic Anal Fissure - A Day Case Study

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ABSTRACT

Aim: To find out a suitable surgical treatment for chronic anal fissure as a day care procedure.

Methods:- This study was carried out in the Nishtar Hospital, Multan in the department of Surgery from March 2012 to December 2012. A total of 105 patients were included in the study for day care surgery. All patients were divided into two groups.

Results: Out of 105 patients, 76(72.4%) were male and remaining 29(27.6%) were female patients. The chief complain of most of the patients was pain on defecation. Majority of the patients was falling in age group 31-40 years. Fissure in ano was present at posterior midline in 90(91%) whereas at the anterior midline it was in 10(10%) patients. Pain on defecation was found in all patients. Constipation was observed in 95 (95%) patients and bleeding per rectum in 72(72%) patients.

Conclusion: It is clear in the study the gold standard technique for chronic anal fissure is lateral internal sphincterotomy either with closed or open technique.

Keywords: Dentate line, Sphincterotomy, defecation.

INTRODUCTION

Anal fissure is a longitudinal ulcer in anal canal. In 70% cases, it is present in midline posteriorly and in 30% it is midline anteriorly¹. It is a benign painful condition of the anoderm characterized by raised resting anal sphincter pressure, which is important in the pathogenesis of anal fissure, possibly by impairing tissue perfusion and leading to ischaemic ulcer^{2,3,4}.

With patient in lithotomy position, the common position of anal fissure are clock positions. Fissures at any other position need further investigation of the underlying cause. Possible causes are Crohn's disease, anal intercourse, sexually transmitted disease or anal carcinoma. Clinically, the fissure is visualized by gently parting the buttocks and everting the anal verge. Digital rectal examination is painful. Further examination is proceeded under general anesthesia.

Surgery is performed only when conservative measure fail^{5,6} that include application of topical 0.2% glycerol trinitrate⁷ and 2% diltiazem ointment⁸. The use of glyceryltrinitrate induces rapid healing of anal fissure with a 72% healing rate in one study⁹. Most common gold standard procedure is lateral internal sphincterotomy which may be performed by open or closed method. Patients were more satisfied with day care surgery.

Closed internal sphincterotomy can be done safely under local anaesthesia in OPD with low complication rate and less postoperative period of

stay¹⁰. Lateral internal sphincterotomy leads in most cases to quick healing of chronic anal fissure and 96% of fissures heal at 6 weeks postoperatively.

The objective of study was to evaluate the effectiveness and long term results of sphincter healing following LLIS in the management of chronic anal fissure

MATERIAL AND METHODS

This study was carried out in the Nishtar Hospital, Multan in the department of Surgery from March 2012 to December 2012. A total of 105 patients were included in the study for day care surgery. All patients were divided into two groups. In group- A, 55 patients were treated with open lateral sphincterotomy and in group-B, 50 patients were managed by closed lateral sphincterotomy method. All patients were viral markers (HBsAg, BCAb and HIV) free. Following a routine checkup, all the patients underwent surgery as day case under general anesthesia.

In close technique, a 1 cm incision is made in the groove between internal and external sphincter and scalpel is used to divide the lower third of internal sphincter controlled by left index finger inserted. In open method, park retractor is used to retract the anal canal and feel the intersphinctric grooves. A small incision 1cm is made in the intersphincteric groove and diathermy was used to divide the fibres of internal after separating the muscles from mucosa in lower third. Haemostasis was secured with diathermy and pressure wound is closed with vicryl suture 3/0. Small dressing applied at the end of procedure. Patients were followed for 6 months following surgery

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to observe any complication that includes any pain, bleeding, infection or recurrence.

RESULTS

The main aim of the study was to determine the best technique for the treatment of chronic anal fissure. Out of 105 patients, 76(72.4%) were male and remaining 29(27.6%) were female patients.

The chief complain of most of the patients was pain on defecation (Table1). Majority of the patients was falling in age group 31-40 years as shown in table-2. Fissure in ano was present at posterior midline in 90(91%) whereas at the anterior midline it was in 10(10%) patients (Table2). Pain on defecation was found in all patients. Constipation was observed in 95(95%) patients and bleeding per rectum in 72(72%) patients (Table3).

Patients of both groups showed remarkable postoperative recover. Painful symptoms improved very next day in both groups, quicker in open technique patient as compared to closed method. Bleeding after surgery was found in five patients. Mild incontinence to flatus which was temporary was in four patient in group-A compared to 6 patients in group-B. Only two patients had recurrence in group-B.

Table-1: Complications (n=105)

Complication	n	%age
Pain on defecation	105	100.0
Constipation	95	90.5
Bleeding per rectum	72	68.6

Table-2: Age distribution (n=105)

Age(years)	n	%age
Upto 30	35	33.3
31-40	55	52.4
41-50	08	07.6
51-60	05	04.8
> 60	02	01.9

Table-3: Distribution according to location (n=105)

Location	n	% age
Posterior midline	75	71.4
Anterior midline	20	19.1
Both sides	10	09.5

DISCUSSION

In this study of 105 patients, 55 were treated by open method and rest was managed by the closed method of lateral internal sphincterotomy. Out of 105 patients 71.4% presented with posterior midline fissures, 20 patients (19%) presented with anterior anal fissures and 10 patients (9.5%) presented with both anterior and posterior anal fissures¹¹.

Hilturen and Matikinen described a similar result in closed lateral internal anal sphincterotomy¹². Whereas Ullah and Nadeem reported that 90 versus 88% were free symptoms on next day postoperative in patients undergoing open versus closed lateral internal sphincterotomy respectively¹³.

Our results of open versus closed lateral internal sphincterotomy were pain (25 vs 20%), bleeding (0 vs 5%), infection (0.7 vs 2%), fistula (0 vs 6%) and recurrence (1.5 vs 5%). Admission in hospital for over night stay due to pain (1.5 vs 3%). It was observed that complication rate was higher in closed group. Patients were quite happy and satisfied with day care surgery.

CONCLUSION

It is clear in the study the gold standard technique for chronic anal fissure is lateral internal sphincterotomy either with closed or open technique.

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