MEDICAL CHANNEL

Original Article

OUT COME OF CLOSED LATERAL SPHINCTEROTOMY FOR THE MANAGEMENT OF CHRONIC FISSURE IN ANO.

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ABSTRACT:

Objective: To evaluate the outcome of closed lateral sphincterotomy with regard to postoperative pain relief, complications like incontinence and recurrence of chronic fissure in ano.

Methodology

Sample technique: Non probability, purposive.
Study design: Prospective, analytic.
Duration: 3 years from January 2008 to December 2010.
Sample size: 350 cases.
Data Collection procedure: Patients meeting with inclusion criteria were operated by closed lateral sphinctreotomy. The postoperative data was collected on written profroma. Follow up was continued in OPD for 6 weeks.
Data analysis: This was done a SPSS version 11.0.

Results: Out of 350 patients, females predominated (M:F 1:1.7). All patients presented with pain, while bleeding per rectum was present in 273(78%). 256(73%) patients had fissure anteriorly. All patients were operated by closed lateral sphincterotomy. Post-operatively, 87% patients had complete pain relief while 11% had symptoms with decreased intensity. Residual flatus incontinence was present in 3 patients. No patient developed fecal incontinence or recurrence.

Conclusion: Closed lateral sphincterotomy is safe and effective surgical procedure for the management of chronic fissure in ano.

Key words: Closed lateral sphincterotomy, chronic fissure in ano, primary fissure, secondary fissure.

INTRODUCTION

Fissure in ano is a common distressing and painful perianal condition all over the world.[1] While the constipation is the most common cause, it may arise secondary to crohn's disease, tuberculosis and ulcerative colitis.[2] In females acute fissures may be triggered by pregnancy and child birth.[3] An unhealed fissure may become infected and many develop into a chronic ulcer. A fissure is said to be chronic if it does not respond to conservative therapy for at least six weeks.[4] Chronic fissure may manifest as non healing ulcer with sentineal pile, visible haemorrhoids, induration at the edges of fissure and fissure with fistula.[5] Chronic fissure is treated by surgical intervention. The option vary from simple anal dilatation under anaesthesia to sphincterotomy (which may be dorsal, open lateral and closed lateral).[6] Closed lateral sphincterotomy was introduced in 1951 by Eisenhammer and later by Notaras.[7] The standard task force of the American society of colon and rectal surgeon has recommended lateral sphincterotomy as a technique of choice for the treatment of chronic anal fissure.[8]

This technique is most popular world wide, as for as safety, simplicity, minimized ansesthesia requirement & good results are concerned.[4,5,6]

However some authors have not reported satisfactory results in terms of faecal incontinence

& recurrence.[4] They have reported anal incontinence for flatus 0.36%, for liquids 0.21% and for solid stools 0.5%.
We conducted this medium scale study to evaluate the outcome of closed lateral sphincterotomy in terms of postoperative pain relief, development of anal incontinence and recurrence.

METHODOLOGY

Study design: Prospective, analytic.
Setting: Department of General Surgery, CMC Hospital Larkana.
Duration: January 2008 to December 2010.
Sample size: Total 350 cases.

$$n = \frac{(za/2)^2\ p(1-p)}{e^2} \qquad n=350$$

Sample Technique: Purposive (non-probability).
Inclusion criteria: following were included:

- Adult patients of either sex with primary chronic anal fissure.

Exclusion criteria: Following were excluded:

- Patients with recurrent anal fissure
- Patients with co-morbid condition
- Patients with secondary fissure.

Data collection procedure: The data of these patients was recorded on predesigned proforma. The diagnosis of chronic anal fissure was made by history and clinical examination. All 350 patients were operated by closed lateral sphincterotomy.
Postoperative follow up was maintained every three weeks for six visits (18 weeks). Any complication especially, incontinence (flatus, liquid and solid stools) and recurrence of symptoms, abscess and non healing ulcer was recorded.
Data analysis: Data analysis was done in SPSS version 11.0

RESULTS

The present study was conducted upon 350 cases of anal fissure. The most common age group was 31-40 years (49%) followed by 41-50 years (27%).
In this study females predominated over males. We observed that 63% of our patients were females with male to female ratio of 1:1.7 as shown in table 1.
In our study, pain (100%) was the main symptom of the patients. The severity and duration of the pain varied from patient to patient.
287 patients (82%) had constipation and were passing hard stool. The remaining 63 patients (18%) had normal consistency of stool. While no patient had diarrhea or any recent change in the bowel habits.
Bleeding per rectum was complained by 273 (78%) patients.
126 patients (36%) also complained of pruritis ani while only 11 patients had pussy discharge.
Out of 350 patients 256 (73%) had posterior midline fissure, 80 patients (23%) had fissure anteriorly, while 14 patients (4%) had fissures both anteriorly and posteriorly midline and these were females.
The mean duration of hospital stay was 3 days. However wound of 78% cases took 1 week to heal, 20% wound took 2 weeks to heal while only 2% wound took longer than 2 weeks to heal, as shown in table 3. The wound healing was assessed by direct examination of the wound for the signs of healing.
During this study we observed that after lateral sphincterotomy 89% of our patients were symptoms free while 11% had persistence of symptoms but of decreased intensity (as judged by patient themselves).
Patients were followed up for 18 weeks. All patients turned up for first follow up visit at 3rd week with no complain except flatus incontinence in 02% cases. Up to 6th week 20% patients did not turn for follow up and up till 18 weeks drop out ratio was 13%. More patients (13%) more and 3 patients reported flatus incontinence. No recurrence for faecal incontinence was reported by any patient.

TABLE NO. 01: SEX DISTRIBUTION

SEX	FREQUENCY	PERCENTAGE (%)
Males	130	37.2 %
Females	220	62.8 %

TABLE NO. 02 POSTOPERATIVE RECOVERY (HEALING TIME)

HEALING TIME	NO. OF PATIENTS	PERCENTAGE (%)
1 Week	273	78%
2 Weeks	70	20%
> 2 weeks	7	2%

TABLE NO. 03: COMPLICATION OF CLOSED LATERAL SPHINCTEROTMY

COMPLICATIONS	FREQUENCY	PERCENTAGE (%)
Incontinence (flatus)	5	1.42%
Discharge	5	1.42%
Local Infection	10	2.85%
Pruritis	15	4.28%

TABLE NO. 04: FOLLOW UP

	3RD WEEK	6TH WEEK	18TH WEEK
Complete Follow up	350 (100%)	320 (91.42%)	311 (88.85%)
Lost Follow up	0	30 (8.57%)	39 (11.14%)
Flatus incontinence	2 (0.57%)	3 (0.85%)	0
Faecal Incontinence	0	0	0
Recurrence	0	0	0

DISCUSSION

Chronic anal fissure is the most common cause of anal pain associated with internal anal sphincter hypertonia. Surgical sphincterotomy achieves permanent reduction of sphincter hypertonia.[9] Conservative treatment can only provide temporary reduction.[10]
It has been said that all patients with anorectal symptoms come to doctor reporting haemorrhoids or worry about the cancer. Among the myriad other diagnosis possibilities, one of the most common is anal fissure. Anal fissure is a common and distressing

problem. This original study is comprised of 350 cases, while Kiyak G[11] conducted a similar study recruiting 129 subject, Khan JS[12] conducted their study on 96 patients. Mousavi SR conducted study an 92 patients of chronic fissure in ano.[13] However larger studies also exist like Khubchandani JF and associates in 1989[14] who conducted their study upon 298 patients.

Anal fissure occur roughly equally in both sexes. However few studies show a male to female ratio of 1:2.6 while other had reported male to female ratio of 2:3. It is evident from these that the most of these patients were females. Similarly in our study most of the patients (63%) were females.

Any age group may be affected by anal fissure. However it is uncommon at the extreme of age. In present study the age ranged from 17 years to 61 years with most frequent age group of 31 – 40 years having 49% study population followed by 40 – 50 years with 27% comparable to another study.

Regarding presentation of the patient's pain in the main symptom which follows defaecation and lasts for many hours. In this study also pain was the most common and consistent feature of 350 patients (100%). Bleeding per rectum which was bright red and sufficient enough to streak the stool. Bleeding per rectum was seen ion 273 patients (78%). Constipation was present 287 patients (82%) while 126 patients (36%) complained of purities ani and discharge was seen in only 11 patients (3%). The fissure in always situated in the vertical axis of the anal canal. The usual site for anal fissure is midline, however lateral fissures are seen in diseases like crohn's disease, ulcerative colitis, tuberculosis, syphilis and HIV etc. in this study 73% of the patients had single fissure posteriorly and 23% had fissure anteriorly. While 4% patients had fissure both anteriorly and posteriorly. These results are also at par with the results of Gupta PJ[15] who reported 89% posterior midline fissure, 6.5% anterior and 4.5% synchronous anterior and posterior fissures. During this study we observed that after lateral sphincterotomy 89% of our patients were symptom free while 11% had persistence of symptoms but with decreased intensity. These results are comparable to other report by Casillas S et al[16] also reported similar result i.e 95% symptomatic relief. Mean hospital stay of patients in this study was 3 days while wound healing time was 27 days. Out of 350 patients 3% had flatus incontinence and none had reported faecal incontinence. These results are again at par with other studies; like Kiyak G[11] who reported 4.4% flatus incontinence and 0.04% faecal incontinence. However, Ortiz H et al[17] reported only 0.04% gas incontinence.

Recurrence was not reported by any patients in this study within 6 months follow uo period. Similar results were reported by other researchers like Sileri P et al.[18] As discussed above it is obvious that lateral sphincterotomy has satisfactory results with regard to symptomatic relief, incontinence and recurrence of fissure in ano.

CONCLUSION

Chronic fissure in ano is a common presentation of surgical patients. Females are affected primarily. With different available options, closed lateral sphincterotomy is a safe surgical modality of treatment in terms of pain relief, incontinence and recurrence of chronic fissure in ano.

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PROFORMA

OUT COME OF CLOSED LATERAL SPHINCTEROTOMY FOR
THE MANAGEMENT OF CHRONIC FISSURE IN ANO

Name _____ Hospital Record # _____

Gender ☐ Male ☐ Female Age (years) _____

Address:_____

Phone _____

Date of admission _____ Date of discharge _____

Symptoms:

☐ Pain
☐ Constipation
☐ Bleeding PR
☐ Pruritis ani
☐ Discharge

Site of fissure ————-

Postoperative wound healing time———(wks**)**

Complication

☐ Incontinence(flatus)
☐ Local infection
☐ Pruritis ani
☐ Discharge

FOLLOW UP

	3RD WEEK	**6TH WEEK**	**18TH WEEK**
Complete Follow up			
Lost Follow up			
Flatus incontinence			
Faecal Incontinence			
Recurrence			