EVALUATION OF “TAILORED LATERAL ANAL SPHINCTEROTOMY” FOR CHRONIC ANAL FISSURE- A PROSPECTIVE STUDY.

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Abstract

Fissure-in-ano is one of the most common painful anorectal conditions encountered in surgical practice. There are several effective non-surgical methods of managing acute anal fissure. If conservative measures fail surgical option is offered to the patients. Lateral anal sphincterotomy is the surgical option recommended and accepted worldwide. The aim of our study was to assess tailored lateral sphincterotomy in terms of safety and outcome for the surgical management of chronic anal fissure.

Patients and Method: Eighty-one diagnosed cases of chronic anal fissure who failed conservative management attending Mohammad Afzal Beigh Memorial Hospital (MABM) surgical OPD between September 2016 to September 2018 were enrolled in this study. Tailored left lateral internal sphincterotomy(LLIS) was performed in all patients. The date was recorded and analysed. Early post-operative follow-up was maintained every week for four visits or till the fissure healed, whichever was earlier, followed by biweekly follow-up till a total of 8 weeks. Complication if any was recorded.

Results: Common age group was third and fourth decade of life. Most of the patients were females. Pain (100%) was the commonest symptom. Majority of the patients (91.67%) had posterior fissure. No recurrence or major faecal incontinence was reported by any patient.

Conclusion: “Tailored lateral anal internal sphincterotomy” is safe and effective surgical procedure for the management for chronic anal fissure with minimal postoperative complications.

Keywords: Chronic; anal fissure; lateral sphincterotomy; tailored.

Introduction:

Anal fissure is a longitudinal tear in the anoderm at the distal end of anal canal [1].The underlying pathophysiology of anal fissure is multifactorial and involves anodermal ischaemia, infection,

chronic constipation and hypertonicity of the smooth muscle of the internal and sphincter. Posterior fissure is most common due to relatively scanty blood supply and relatively unsupported anoderm in the area [2]. Majority

of the patients suffering from anal fissure are from young age group. Usual presentation is passage of hard stools with pain at defecation which may be accompanied by bright rectal bleeding usually limited to a small amount on toilet paper or on the surface of stool. Conservative management consists of three components: relaxation of the sphincter, atraumatic passage of stools and pain relief [3]. Options included in medical management are change in dietary habits, high fluid intake, laxative and local muscle relaxants like calcium channel blockers (nifedipine and diltiazem), application of Isosorbide dinitrate or intra-sphincteric injection of botulinum toxin. Result of conservative management is short term. Surgical management of chronic anal fissures has been accepted traditionally as an effective and standard procedure which results in healing of fissures in about 90% cases [4]. LLIS is the most simple, reliable and safe treatment for chronic anal fissure.

The significant risk of persistent disturbance in anal continence has been reported following lateral sphincterotomy, which varies between 0-30% for flatus, 0-20% for liquid incontinence and 0-5% for solid stool incontinence [5]. This can be reduced using tailored sphincterotomy. The objective of the present study was to evaluate the complications and effectiveness of fissure healing following tailored LLIS in the management of chronic anal fissure.

MATERIAL AND METHODS

All patients of chronic fissure-in-ano attending MABM Hospital surgical OPD (Outpatient Department) between September 2016 to September 2018 were enrolled in the study as per inclusion criteria. Informed and written consent was taken. Demographic data was collected. A detailed history was recorded and general physical examination and local examination was performed. All patients were prepared before surgery with single enema. All patients underwent tailored Lateral Internal Sphincterotomy in lithotomy position. Choice of

anaesthesia was at the discretion of anaesthetist. All patients were discharged within 24 hours of hospital admission in a stable condition. Post operatively patients were advised analgesics and sitz baths along with laxatives for a week. Early post-operative follow-up was maintained every week for four visits or till the fissure healed, whichever was earlier, followed by biweekly follow-up till a total of 8 weeks. Patients were followed-up and observed for post-operative complications like incontinence to flatus or fecal soiling, persistence of pain, infection (abscess or fistula) and anal stenosis for a period ranging from 8 weeks to 6 months. For the purpose of present study minor incontinence meant incontinence to flatus alone, and major incontinence to fecal matter. The final outcome of the study was the healing rate of anal fissure. Fissure was declared healed when the patient had no pain or bleeding during defecation and clinically by the absence of sphincter spasm. Observations were collected and tabulated. Institutional ethical committee clearance was taken.

RESULTS

Eighty-one patients were enrolled for this study. Nine patients were lost to follow-up. Seventy-two patients were finally included in the study. Forty-nine (68.05%) patients were females and 23(31.94%) were males. Male female ratio was 1:2.13. Age ranged from 18-68 years. Maximum incidence of anal fissure was noted in third and fourth decade of life with 62% of study population in the age group of 31-40 years. Twenty-three percent of population was in the age group of 40-50 years.

Pain during defecation was the main symptom at presentation in all the patients. Pain was present for more than a month in all patients. Fifty-four (75%) patients had severe pain while 18 (25%) patients had moderate pain. Sixty-seven (93.05%) patients had bleeding per rectum. Constipation was present in 58 (80.05%) patients (Table1).

Table 1: Presenting symptoms		
Symptoms	Number of patients	Percentage
Pain	72	100
Bleeding PR	67	93.05
Constipation	58	80.05
Itching	23	32
Discharge	8	11

The most consistent clinical sign noted in all patients was spasm of the internal sphincter. Sixty-six (91.67%) patients had a posterior midline fissure. Postoperative about 97% patients had complete pain relief. Only 4 patients (5.57%) in the study reported incontinence during the first follow-up visit and all four had minor incontinence. Fissure healed in 69 patients (95.83%) within a period of 4 to 8 weeks. Early post-operative complication included minor bleeding, mild soiling and incontinence of flatus as depicted in table 2.

Table 2: Complications of Surgery		
Complication	Number of patients	Percentage
Minor bleeding	13	18.05
Pruritis Ani	11	15.27
Incontinence of flatus	04	5.57

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DISCUSSION

Male female ratio of 1:2.13 was observed in our study. Few studies show a male to female ratio of 1:2.6 [6] while other had reported male to female ratio of 2:3[7]. It is evidence from these studies that most of those patients were females. Similarly, in present study most of the patients 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 18 years to 68 years with most frequent age group of 31-40 years having 62% study population followed by 40-50 years with 23% study population. This is comparable to the study conducted by Cohen et al [8]. In this study 92% of the patients had a fissure posteriorly and 8% had fissures anteriorly. These results are also at par with the results of Fiducia et al who reported 89% posterior midline fissure [9]. Fecal incontinence is the most feared complication following LLIS. Incontinence rate of 5.57% was reported in our study. Limited or conservative sphincterotomy used in the study could partly explain this low rate of incontinence

studied by several others. Reed reported postoperative soiling in 22% and grade 1 incontinence in 35% of patients after sphincterotomy in their series[7]. Hsu and Mac Keigan reported no post-operative soiling [10]. Pernikoff et al reported 4.4% flatus incontinence and 0.04% faecal incontinence [11]. However, Rosa et al reported only 0.04% gas incontinence [12]. During this study we observed that after lateral sphincterotomy 96% of our patients were symptom free, while 4% had persistence of symptoms but with decreased intensity. These results are comparable to other studies. Rosa [12] and Viso Pons [13] also reported similar results i.e. 95% symptomatic relief. Hannel et al reported 98% success rate with a recurrence rate of 1.4% [14]. Littlejohn et al reported 99% healing rates with incontinence rate of 1.4% but with recurrence rate of 8% [15]. Recurrence was not reported by any patients in this study who were followed for 6 months.

CONCLUSION

Tailored Lateral Anal Internal Sphincterotomy is a safe and effective procedure for the surgical management chronic anal fissure. Frequency of

complications seems to be lower than the conventional lateral anal sphincterotomy while there is no compromise on efficacy.

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