ORIGINAL ARTICLE

Surgical Management of Chronic Anal Fissure: A Descriptive Study

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ABSTRACT

Aim: To determine the outcome of lateral internal sphincterotomy for the management of chronic anal fissure.

Methods: In 100 patients of chronic anal fissure, lateral internal sphincterotomy was performed. Patients were included in this study from the Surgical Out Patient Department at Bahawal Victoria Hospital, Bahawalpur from June 2007 to May 2008. All the patients were followed for 12 weeks to establish the benefits of Lateral internal sphincterotomy.

Results: Sixty seven males and 33 females with anal pain due to chronic anal fissure were included in the study. Mean age was 34±7. 48 years and mean hospital stay was 3±0.89 days. Painful defecation, blood streak with stools and chronic constipation were common complaints. They were all treated surgically by Lateral internal sphincterotomy under general anesthesia after proper preparation and followed for 3 months. Pain, bleeding from wound site and wound sepsis were the common complications followed by transient urinary retention, incontinence and recurrence.

Conclusion: Among the surgical management of chronic anal fissure lateral internal sphincterotomy is a safe procedure for patients with chronic anal fissure. It can done even on outdoor basis and shown no serious complications.

Keywords: Anal fissure, Lateral internal sphincterotomy, Anal sphincter.

INTRODUCTION

Anal fissure is defined as a longitudinal tear in the lining of the anal canal distal to the dentate line. The tear, being present in the squamous part of the epithelium, causes considerable pain, fresh bleeding while defecation and impairment in quality of life[1]. It may be acute with superficial tear which heals either spontaneously or with conservative treatment[2]. When the acute fissure fails to heal with conservative treatment by 04-06 weeks then it is labeled as chronic anal fissure. It appears as an elliptical shaped ulcer, 90% of time in the posterior mild line with indurated margins. Base is either made of the fibrotic scar or the lower part of the internal sphincter, which is also accompanied by a skin tag distally and a hypertrophic papillae anteriorly[3].

Lateral internal sphincterotomy is one of the common surgical measure. It was described in 1951 and 1959. Among many treatment modalities for chronic anal fissure, it remains the first line of treatment[4]. It is usually performed under general anesthesia in our setup. The purpose of Lateral internal sphincterotomy is to divide the distal third to half of internal anal sphincter to reduce the resting anal pressure by decreasing the hypertonia[5]. This study was conducted to evaluate the outcome of lateral internal sphincterotomy in the surgical treatment of chronic anal fissure.

Stool softeners and chemical agents like Nitric Oxide, Glyceril trinitrate, calcium channel blockers like Diltiazem, or self-dilatation with xylocain ointment are the Non-surgical treatment of anal fissure. When these measures fail or fissure is chronic with fibrosis, skin tag or mucus polyps, surgical measures are conducted[6].

PATIENTS AND METHODS

Between June 2007 to May 2008, 100 patients with CAF were enrolled in the study. Diagnosis was made according to history and physical examination. Chronic anal fissure was defined by duration of symptoms longer than 3 months and the presence of a skin tag, a sentinel pile or fibrosis at the margins of the fissure. Baseline investigations along with stool examination were performed and patients were prepared for Lateral internal sphincterotomy after taking informed consent.

All patients were operated under general anaethesia in lithotomy position. Park's anal retractor introduced to stretch anal canal and identify intersphincteric groove. A circumferential incision of 0.5cm made with No.11 blade at 3 o clock position. A

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plane created between anal mucosa and internal sphincter. Internal sphincter cut upto 1 cm either with scissors or diathermy. Sentinel tag also excised if present. Postoperatively metronidazole, analgesia, stool softeners and antiseptic sitz baths were given and the patients observed for morbid condition related to surgery. Patients were sent home after removal of the anal packs. They were followed for 12 weeks for complications frequently.

RESULTS

Detail of results is given in tables 1, 2, 3 and 4. One hundred patients presenting with chronic anal fissure at the Surgical OPD, BVH, Bahawalpur were included in this study.

Table 1: Age distribution

Age (years)	n	%age
20-30	33	33
31-40	48	48
41-50	19	19

Table 2: Gender distribution

Gender	n	%age
Male	67	67
Female	33	33

Table 3: Clinical features of patients with anal fissure

Symptoms	n	%age
Pain	100	100
Bleeding	70	70
Discharge/ pruritis	38	38
Chronic constipation	78	78
Skin tag	87	87
Site of fissure:		
Posterior	92	92
Anterior	8	8
Crater on digital rectal examination	100	100
Blood stain on gloves	52	51.11

Table 4: Postoperative complications

Complications	n	%age
Pain	68	68
Bleeding	25	25
Infection	16	16
Urinary retention	9	9
Incontinence	8	8
Recurrence	7	7

Lateral internal sphincterotomy was performed under general anesthesia in all (100%) patients. All the patients were observed for immediate complications and followed for 12 weeks to look for any late complications. Postoperatively, 68(68%) patients complained of pain, 25(25%) bleeding from wound site and wound sepsis occurred in 16(16%) patients. Transient urinary retention was developed in 9(9%) patients while recurrence occurred in 7(7%) patients. Eight (8%) patients came back with complaint of minor incontinence of stool. These patients were reassured, pelvic exercises were advised and they improved with conservative management. No mortality occurred in our study.

DISCUSSION

A common disease, anal fissure causes considerable discomfort, loss of working days and reduction in quality of life. Males are more commonly affected than females as revealed in our study and others.[7] Anal fissure affects all age groups, particularly young adults.[8] Mean age in our study was 34 years which is closely comparable to the mean age of 30-45 years reported in various studies.[9] Painful defecation and bleeding per anum were the common complaints in our study as observed in other studies as well[3,10].

In this study, 92% of all fissures occur posteriorly, 8% anteriorly Zaghiyan KN et al described that anal fissure is more common posteriorly[14]. Nahas reported 86.1% posterior midline and 13.9% anterior fissure.[11] Skin tag was found at the lower end of fissure in 87% patients in our study which has been observed a usual finding overlying the fissure in various studies[12,13]. The resting pressure in the anal canal is largely a function of the internal sphincter. The continuous partial contraction of the sphincter is due to an internal myogenic tone and alpha adrenergic nerve mediated pathology. Patient with chronic fissure have a raised resting anal pressure due to hypertrophy of the internal sphincter[14].

This reduces perfusion of the anal mucosa as the blood vessels supplying the distal anal canal and traversing the internal sphincter enroute to the anal mucosa may be so compressed by the hypertonic muscles leading to Chronic Anal Fissure. Eliminating the sphincter hypertonia by chemical or surgical sphincterotomy results in an increase in the local tissue perfusion and healing of the chronic anal fissure[5]. Complete and instant healing rate was observed after lateral internal sphincterotomy in our study. Ninety two 92% healing rate has been shown by Renzi A[15]. Complications to wound like urinary retention rate was higher in this study as compared to study of Shaikh AR reflecting 2.1%[16]. Incontinence occurred in 8% of patients in our study. Minor but potential incontinence has been described by various authors[17].

CONCLUSION

Lateral internal sphinterotomy is a suitable and effective treatment for chronic anal fissure in patients who do not respond to conservative treatment. It is associated with significantly less postoperative discomfort, and increased healing rate, with less morbidity.

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