Out-come of lateral internal sphincterotomy in patients with chronic anal fissure

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Objective: To review our experience in outcome of lateral internal sphincterotomy (LIS) for chronic anal fissure.

Methodology: A total of 120 patients who underwent LIS for chronic anal fissure at Mercy Teaching Hospital between January 2011 and December 2012 were retrospectively analyzed. Patients with associated diseases like Crohn's disease, anal growth or polyp were excluded from the study.

Results: There were 80 (66.6 %) men and 40 (33.3 %) women with the mean age of36.2years (range 26-57 years). Symptoms were relieved in 110 (96.5%)patient with full healing of fissure within 16 weeks.

Conclusion: The lateral internal sphincterotomy is a safe and effective method for the treatment of chronic anal fissure. (Rawal Med J 2014;39:65-67).

Key Words: Anal fissure, incontinence, sphincterotomy.

INTRODUCTION

A chronic anal fissure is characterized by triad of longitudinal tear in the squamous epithelium of the anal canal extended from lower end of dentate line up to anal verge, sentinel pile below and hypertrophic papilla above it. 90% fissures occur in the posterior anal canal[1] due to reduced blood supply to the anoderm at the posterior midline than other sides of the anal canal.[2] The sphincter tone in these patients is persistently high which further compromises its blood supply.[3]Lateral internal sphincterotomy (LIS) is a treatment of choice for chronic anal fissure.[4] It has a very high cure rate between 94-96%.[5,6]

In comparing with other available treatment options, the results of LIS have been shown to be superior.[7,8]Manual anal stretch has a higher risk of fissure persistence than internal anal sphincterotomy and also a significantly higher risk of minor incontinence. The Cochrane data base study review suggests that manual anal stretch should probably be abandoned in the treatment of chronic anal fissure in adults.[9]The main concern following lateral internal sphincterotomy is incontinence of stool or flatus. This study was conducted to assess its safety and effectiveness in treating chronic anal fissure in our sitting.

METHODOLOGY

The patients included in this study with chronic anal fissure were diagnosed on the basis of duration of symptoms for six weeks and clinical findings of chronic fissure like anal tag or hypertrophic papilla. All patients have failed conservative treatment before surgery. Atypical fissures associated with inflammatory bowel disease, malignancy and anal infections were excluded from the study. Those patients who had recurrent fissure after anal dilatation or sphincterotomy or suffered any grade of incontinence were also excluded.

Table 1. Wexner Continence Grading Scale.

Type of incontinence	Never	Rarely	Sometimes	Usually	Always
Solid	0	1	2	3	4
Liquid	0	1	2	3	4
Gas	0	1	2	3	4
Wears pad	0	1	2	3	4
Lifestyle alteration	0	1	2	3	4

Never 0; rarely<1/month; sometimes <1/week, >1/month; usually<1/day, >1/week; always, >1/day.0 perfect; 20 complete incontinence.

A closed LIS were performed in all patients under spinal or general anesthesia. Postoperative hospital stay, relief of symptoms, time to fissure healing and complications were recorded. Patients were

assessed by Wexner Continence Grading Scale postoperatively (Table1). The patients were reviewed at 2, 6 and 16 weeks postoperative. Fissure healing was assessed by history and clinical examinations.

RESULTS

Out of 120 patients, 114 (95%) patients were analyzed; six were lost to follow up. Out of 114 patients, 110(96.5%) had complete healing of fissure at 16 weeks. In four (3.5%) patients, healing did not occur during this time period mainly due toincomplete sphincterotomy.

Pain was significantly reduced in 112 (98.2%) patients at the time of discharge, while persisted in two (1.75%) patients for 3 days.

Table 2. Results of LIS.

	Number of patients	Percentage
Total number of patients	120	
Male	80	66.6%
Female	40	33.3%
Painful defecation	120	100%
Bleeding per rectum	105	87.5%
Healing of fissure	110	96.5%
Non healing of fissure	04	3.5%
Pain relief at first postoperative day	118	98.3%
Pain not relieved	02	1.75%
Temporary flatus incontinence	10	8.7%
Permanent Flatus incontinence	01	0.87%
Permanent flatus and fecal incontinence	0	0

Ten (8.7%) patients had occasional flatus incontinence at first visit;had complete recovery except one (0.87%). His clinical examination did not show any abnormality with adequatesphincter tone on digital rectal examination. None of the patient in our study had fecal incontinence (Table 2).

DISCUSSION

Anal fissure is the most common cause of painful defecation affecting both male and female equally.[10] In our study, male to female ratio was 2:1 probably because of social restrictions and shyness of female patients to discuss the problem with male surgeons. All the patients presented with painful defecation, while 105(87.5%) had rectal bleeding. This result is comparable to Hashmat et al.[11] LIS was very effective in treating chronic anal fissure in our study, as cure rate of 96.5% is comparable with studies conducted by Karamanlis et al[12] and Tocchi et al.[13] In 3.5% patients, healing did not occur seemingly due to incomplete sphincterotomy.

Lateral internal sphincterotomy, like most other procedures is not free of both minor and major complications. The most feared one being permanent incontinence of feces. Fortunately, this complication is very rare and in our study, no one suffered permanent fecal incontinence, as also shown by Ahmed et al.[14]One patient (0.87%) had loss of control over flatus, especially in squatting position. Temporary flatus incontinence occurred in 8.7%, which subsided in majority of cases within two months. These results are comparable with studies by Menteşet al[15] and Elsebae.[16] Some studies reported hematoma formation,[17] however, none of the patient in our studyhad such complication.

CONCLUSION

Complete lateral internal sphincterotomy is the best current surgical treatment option for chronic anal fissure. The major concern about permanent fecal incontinence is rare. Overall the procedure is safe and effective.

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