

# Lateral Internal Sphincterotomy for Chronic Anal Fissure a Better Option

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## ABSTRACT

**Objective:** To evaluate the effectiveness of lateral internal Sphincterotomy for the treatment of chronic fissure in ano. **Study design:** Descriptive and clinical trial. Duration and Place of study: Surgical department of Chaudhry Mohammad Akram Teaching and Research Hospital Lahore from March 2014 to Oct 2015. **Methodology:** A total of 50 patients with chronic anal fissure were included in this study. 30 patients were male and 20 patients were female. Male to female ratio was 3:2. Majority of patients, n=35 were of age group 30—40 year and n=15 patients were in different age group range 18-65 years. Results: Out of 50 (100%) patients with chronic anal fissure who presented with pain during and after defecation, 30 (60%) were male and 20 (40%) were female. Pain relief occurred in 49 (98%) patients and fissure healed completely in 4—6 weeks, one (2%) patient complained of mild pain and turned out to be ulcerative colitis and referred to Gastroenterologist. Patients were followed up in surgical outdoor for one year and no recurrence found. **Conclusion:** Lateral internal Sphincterotomy is successful and reliable surgical treatment for chronic anal fissure.

**Keywords:** chronic anal fissure, lateral internal Sphincterotomy (LIS), tearing pain

## INTRODUCTION

Anal fissure is a linear tear<sup>(1)</sup> in the lining of distal anal canal below the dentate line. It is a common benign anorectal disorder affecting all age groups but usually among otherwise healthy adults. The true etiology of anal fissure is unknown but a popular theory is based around the severe internal sphincter spasm which predates fissure formation and the paucity of blood supply in the posterior midline<sup>(2, 3)</sup>. This combination may lead to ischemia and failure to heal is due to continuing ischemia. This theory also explains the relapses seen after non-permanent sphincterotomies in comparison to surgical Sphincterotomy due to a return to high resting pressure after cessation of treatment. Constipation and straining pressure in this area are also contributory factors. It is also common to have anal fissure due to diarrhea, Inflammation in the area, and childbirth. Anal fissure can present in two phases, acute and chronic. Acute anal fissure is of less than 6 weeks duration and chronic anal fissure is more than 6 weeks. Anal fissure usually presents with severe tearing pain during and after defecation, streaking of stool with bright red blood, but some patients may have perianal itching, soiling and mild incontinence. Chronic anal fissure is also characterized by internal sphincter spasm, anal fibrosis, skin cap called sentinel pile over the fissure. Acute anal fissure usually heal spontaneously by conservative measures like high fiber diet, stool softening laxatives, plenty of water intake, local applications<sup>(4,5,6,7)</sup> warm sitz bath, NSAIDs and injection Botulinumtoxin,<sup>(8)</sup> but chronic anal fissures do not heal by conservative treatments and are best treated by lateral internal Sphincterotomy. This study was conducted to evaluate the effectiveness of lateral internal sphincterotomy<sup>(9, 10)</sup> in patients with chronic anal fissure.

## METHODOLOGY

A total of 50 patients with chronic anal fissures were treated with lateral internal Sphincterotomy. 30 (60%) patients were males and 20 (40%) patients were females. Majority of patients 35 (70%) were in age groups of 30—40 years and 15 (30%) patients were in different age group ranging from 18—65 years. All patients with chronic anal fissures were selected on clinical basis, history of symptoms more than six weeks with no special inclusion or exclusion criteria. Lateral internal Sphincterotomy is of two types, open and closed techniques. In closed surgical Sphincterotomy, internal Sphincterotomy is performed blindly, incision is closed with chromic catgut 3/0 but in open technique, internal Sphincterotomy is performed under vision after separating external sphincter and wound is left open. In this study, all patients were treated with open lateral internal Sphincterotomy. All patients were operated under general anesthesia and or spinal anesthesia (sadal block) in lithotomy position with full preoperative protocol.

## RESULTS

Lateral internal Sphincterotomy was evaluated in terms of cure of symptoms and healing of fissure, morbidity and recurrence, 49 (98%) patients were benefited and pain was relieved and fissure healed completely in 4—6 weeks while one (2%) patient with multiple fissures complained of mild pain and persistence of fissure turned out to be a case of ulcerative colitis and was referred to Gastroenterologist. All patients were followed up in surgical outdoor for six months and no relapses or recurrence occurred. Lateral internal Sphincterotomy was done as a day care procedure and only minor post-operative complications like mild bleeding, pain and transient incontinence for flatus in few patients found but all settled conservatively.

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## DISCUSSION

Chronic anal fissure is a challenge for health care providers and many treatment options are <sup>(2)</sup> available in literature with variable efficacy. Lund JN, ScholefieldJh <sup>(4,5)</sup> reported GTN ointment for chronic anal fissure healing as 70% effective but significant headache and relapse after cessation and same reported by Pitt J. *et. al.* Our results are comparable with Evan J and his co-workers<sup>(6)</sup> who compared GTN vs. lateral Sphincterotomy for chronic anal fissure and found lateral Sphincterotomy<sup>10</sup> to be a better option. Espi A et al<sup>(8)</sup> reported that the use of Botulinum toxin for chronic anal fissure is up to 96% successful but require higher doses and usually relapses after few months. Anal dilatation under general anesthesia resulted in significant faecal incontinence, so obsolete now-a-days<sup>(9)</sup>.

## CONCLUSION

Lateral internal Sphincterotomy for chronic anal fissure is a better and reliable option with long-term good results and acceptable for the patients.

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