

Closed Lateral Internal Anal Sphincterotomy: An Effective and Easy Way for Pain Relief in Chronic Anal Fissure

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Abstract

Original Research Article

Background: Anal fissure is a common benign anorectal condition. Anal fissure is a longitudinal slit in the anoderm of the distal anal canal which extends from the anal verge proximally, but not beyond the dentate line (1) **Methods:** A randomized clinical trial comparing closed lateral internal sphincterotomy with open internal sphincterotomy. 60 patients of chronic anal fissure were admitted in KIMS Hubli, between November 2015 to Nov 2016. 30 patients were posted for closed lateral internal sphincterotomy and 30 were posted for open internal sphincterotomy. The two groups were compared with respect to post-operative pain and post-operative stay **Results:** Each group consists of 30 patients. Post-operative pain was assessed using Visual Analogue Scale (VAS). There was significant difference in post-operative pain score and post-operative stay (Day 2 $p=0.0001$, Day 3 $p=0.0378$) in closed lateral internal sphincterotomy as compared to open lateral sphincterotomy. **Conclusion:** Closed lateral sphincterotomy has decreased post-operative pain and post-operative stay

Keywords: Closed internal sphincterotomy, open internal sphincterotomy, Visual Analogue Score.

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INTRODUCTION

Anal fissure is a common benign anorectal condition. Anal fissure is a longitudinal slit in the anoderm of the distal anal canal which extends from the anal verge proximally, but not beyond the dentate line¹, which can be acute or chronic anal fissure.

Acute anal fissure is characterised by painful bleeding per rectum with increased anal sphincter tone. Chronic anal fissure is characterised by hypertrophied anal papillae internally and sentinel tag externally, between which lies the indurated anal ulcer overlying the fibres of internal sphincter

Anal fissure causes severe pain during defecation due to increased tone of the internal anal sphincter. The primary aim of treatment for anal fissure is to reduce pressure generated by the anal sphincter mechanism which can be achieved surgically by open or closed lateral internal sphincterotomy.

This study was designed to compare post-operative pain and length of hospital stay following closed and open lateral internal sphincterotomy.

METHODS AND MATERIALS

Patients diagnosed clinically to have chronic anal fissure and admitted at KIMS, Hubballi between the study periods from November 2015 to November 2016 were included in the study.

Inclusion criteria

Not responding to conservative measures
Presence of sentinel tag
Hypertrophied anal papillae
Exposure of the internal sphincter at the floor of the anal fissure

Exclusion criteria

Anal canal with associated pathology like stenosis, abscess
Immunocompromised patients
Not given consent.

After thorough physical examination, routine investigation in terms of complete blood count, random blood sugar, Sr. blood urea, Sr. creatinine, urine routine, random allotment to either procedure was done using computerized random number table

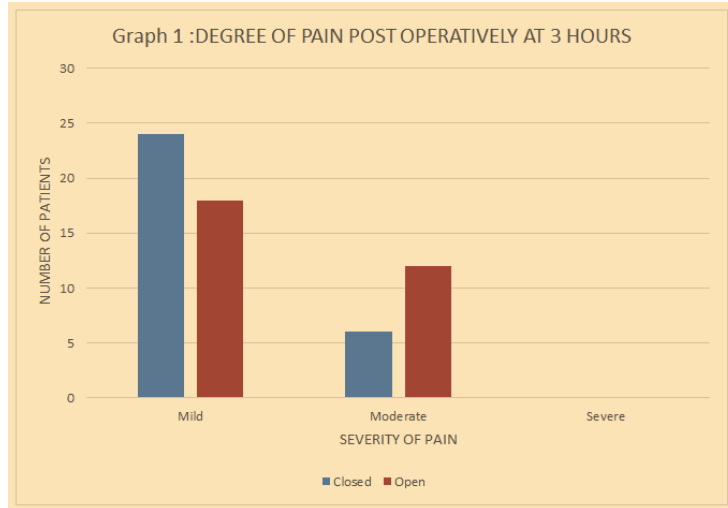
All the procedures were done under spinal anaesthesia. Both closed and open internal

sphincterotomy with conducted in standard fashion. Patients were post operatively assessed with respect to pain and post-operative stay.

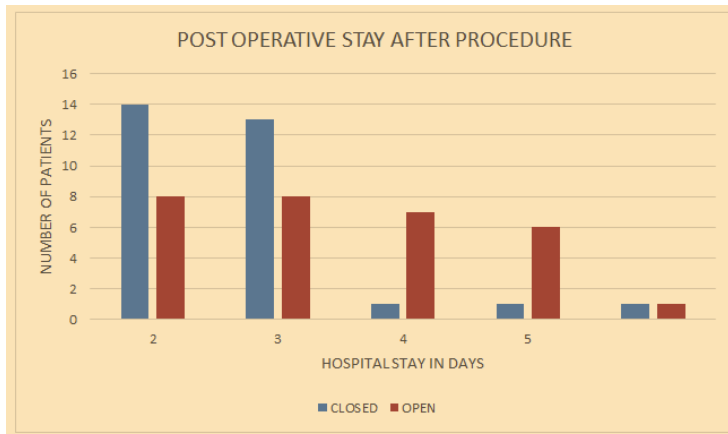
RESULTS

Each group contains 30 patients open (Male: female 24:6), closed (male: female 21:6), mean age (35.7), post-operative pain was assessed by Visual

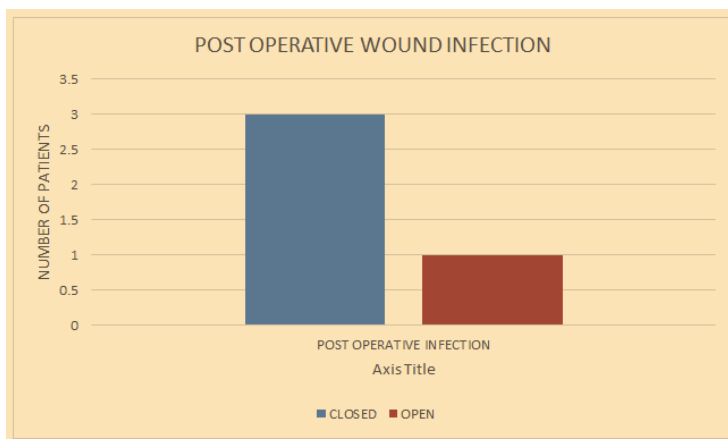
Analogue Score (VAS). There was significant difference seen in pain score (p=0.387) and post-operative stay (day 2 p=0.0001, day 3 p=0.0378) in the closed lateral internal sphincterotomy as compared to open lateral internal sphincterotomy. Three patients in closed lateral sphincterotomy and one patient in open lateral internal sphincterotomy group had post-operative infection; none of the patients had anal incontinence.



Graph-2



Graph-3



Graph-4

DISCUSSION

Chronic anal fissures are those that fail to heal and form a linear, indurated chronic ulcer. Patients request treatment for defecatory bleeding and severe post-defecatory pain. There is considerable evidence that failure to heal is, at least in part, due to localized tissue ischemia from a high anal pressure. A permanent surgical or temporary pharmacological reduction in resting anal pressure is the mainstay of treatment. Internal sphincterotomy is most commonly used operative technique which is highly efficient with high success rate. When operative option given to patients naturally patient will prefer least painful surgery and shortest hospital stay.

Present study addresses the above problem .our study showed significant difference in post-operative pain between post-operative pain between closed and open group.92% of closed sphincterotomy group patients were discharged within 3 days of operation in comparison to 51% discharged in open anal sphincterotomy group

Other parameters like intra operative bleeding follow up pain after 1 week is compared. Intra operative bleeding was found to be low in closed lateral anal sphincterotomy. On Follow up, pain was found to be low in operated cases of closed lateral anal sphincterotomy than open lateral internal sphincterotomy

It was also observed that post-operative wound infection was quite high in operated case of closed internal lateral sphincterotomy I comparison to open lateral internal sphincterotomy

Hospital stay was reduced and early recovery favours closed anal lateral sphincterotomy. Several studies reported that there was no significant difference in post-operative pain [3, 4].

In this study significant less post-operative pain is observed. This study is consistent with study done by Golligher and Hoftman 1970 and Mishra and which strongly recommended closed sphincterotomy over open sphincterotomy

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