Original Research Article

Open lateral internal sphicterotomy (OLIS) in chronic fissure – A series of 450 cases

Madhura M Killedar[1*], Honeypalsinh Maharaul[2], A A Shivani[3]

[1,3]Associate Professor, [2]Sr. Resident, Department of Surgery, Bharati Vidyapeeth Deemed University Medical College and Hospital, Sangli, Maharashtra, INDIA.
Email: mdhurakilledar@gmail.com

Abstract

Fissure in ano is common problem in India. Acute fissure in ano initially can be managed by conservative medical line of treatment but as fissure becomes recurrent or chronic, it is difficult to heal and then it may need surgical treatment. Lateral anal sphicterotomy is gold standard for chronic fissure in ano patient with severe pain and nonhealing. In this study, chronic fissure in ano patients, author has studied, the patient operated by open technique by lateral anal spincterotomy. Study concluded that healing of fissure and anal spam relief is achievable after open lateral anal spincterotomy with satisfactory compliance in patients. Our study in agreement with literature showed that open and closed spincterotomy are similar. We perform the procedure with which we are familiar and which gives good results.
Keywords: Chronic fissure in ano; open lateral sphicterotomy; fissure in ano.

[*]**Address for Correspondence:**
Dr. Madhura M. Killedar, Associate Professor, Department of Surgery, Bharati Vidyapeeth Deemed University Medical College and Hospital, Sangli, Maharashtra, INDIA.
Email: mdhurakilledar@gmail.com
Received Date: 07/05/2015 Revised Date: 15/05/2015 Accepted Date: 28/05/2015

Access this article online

Quick Response Code:

Website: www.statperson.com

DOI: 04 January 2016

INTRODUCTION

Chronic anal fissure (CAF) is a tear in the mucosa which exposes internal anal sphincter fibres. CAF is associated with a sentinel skin tag and the hypertrophied anal papillae. We preferred surgical line of treatment after failed medical management .Lateral anal sphicterotomy is gold a standard for chronic fissure in ano as it, relieves pain and anal spasm. Open technique gives a better visualization of internal sphincter so we can cut the sphincter below the dentate line and can minimize post operative incontinence. We have done our study to assess not only for efficacy but to see recurrence rate, risk of incontinence and compared our results with literature.

AIMS AND OBJECTIVES

The aim of the study was to investigate the results of LIS with open technique, to determine the recurrence rate, post operative infection, to define the risk of incontinence, to perform a long-term assessment of incontinence, and to assess complications and relief of symptoms.

MATERIAL AND METHODS

In this study, patients operated, in the period of June2006 to December2010 were included. Diagnosis of fissure in ano was done, after P/R examination and anoscope on OPD basis prior to surgery. During this study 450 cases of chronic fissure in ano (213males and 237females) with anal spasm were operated, under GA/SA. High-fiber diet, local anesthetic creams, warm Seitz baths and Ayurvedic preparations were tried by most of the patients. H/o recurrence and prolonged symptoms for 6-8 wks was main reason to seek surgeon. Persistent pain connected with defecation and small fresh P/R bleeding were chief complaints. All were operated without bowel preparation. Minimal anal stretching with Open LIS was done in lithotomy position under GA (420) and under SA (30) patients. Associated haemorrhoids, sentinel tag and hypertrophied polyps dealt in same sitting. Patients with fistula in ano were excluded. Minimal Anal Stretching (MAS) followed by Lateral Internal Sphicterotomy (LIS)

How to site this article: Madhura M Killedar, Honeypalsinh Maharaul, A A Shivani. Openlateral internal sphicterotomy (OLIS) in chronic fissure – A series of 450 cases. *International Journal of Recent Trends in Science and Technology.* January 2016; 17(3): 211-213. http://www.statperson.com (accessed 06 January 2016).

with open technique was the procedure which was carried out and infrared coagulation therapy was given to all patients with grade I hemorrhoids. DGHAL, RF cautery, open haemorrhiodectomy were performed in patients with grade II to III hemorrhoids and results are analyzed.

RESULTS

Table 1: Age Group

Age Group	Patients	Percentage
20 to 30 yr	190	42.22%
30 to 40 yr	170	31.22%
40 to 50yr	70	15.55%
50 to 60 yr	30	6.6%
60 yr and above	20	4.4%

Table 2: (Post-Operative complications)

Complications	Patients:
Haemorrhage	50
Abscess/fistula	10(8+2)
Retention of urine	30
Constipation post op	50
Recurrence of symptoms	11
Flatus incontinence	4

Table 3: ComparisonWith Other Studies

Study Group	Kiyak[1] andgroup Turkey (2004-2008)	Samual Argov[2] and Group Israel	My Study India (2006-2010)
Male/Female Ratio	0.88:1	_	0.8:1
No. Of Patients	129	2,340	450
Age Group (Common/Rare)	16 -35yr / > 61	_	20-40yr/ > 60
Post Op Bleeding	1.6%***	1% * **	11%
Post Op Infection	0.80%*	1% *	2.20%
Retention Of Urine	18.6%***	0.5% * **	6.60%
Re Occurence Symptoms	3.10%*	1% *	2.20%
INCONTINENCE FOR FLATUS (Temporary)	6.90%***	1.5% *	0.88%

*Not Significant, **Significant, ***Highly Significant, Z test used

This clinical Study was undertaken in patients undergoing LIS with open technique in chronic fissure in ano. 450 patients entered the study. Post operatively post defecation pain relief was within one or two days. Hospital stay was one day. Study has demonstrated that LIS with open technique (Figure 1) just

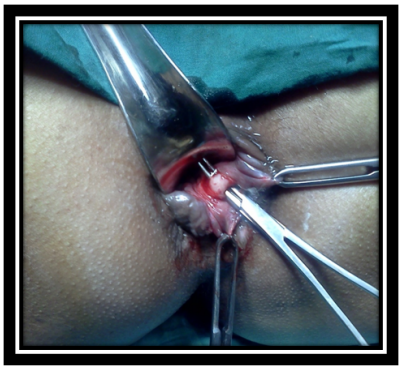

Figure 1:

below the dentate line does not have a higher rate of incontinence. Incontinence after LIS was only to flatus in 4 patients and it resolved in 6 weeks once the laxative was weaned. Complications like urine retention, post op infection; hemorrhage were seen in few patients as like in internal spincterotomy by closed technique.

DISCUSSION

An anal fissure is a linear tear in the skin of the distal anal canal below the dentate line [(3)]. Chronic anal fissure (CAF) is a tear in the mucosa which exposes internal anal sphincter fibres. CAF is associated with a sentinel skin tag and the hypertrophied anal papillae. In few cases it is associated with haemorrhoids. Possible pathophysiology of non-healing in CAF is high resting anal pressure and ischemia and reduced perfusion at the fissure site due to persistent hypertonia and anal spasm. It is a common condition affecting all age groups but particularly common in young adults. It has been proved that constipation is the primary and sole cause of initiation of a fissure[4], passage of hard stool, irregularity of diet, consumption of spicy and pungent food, faulty bowel habits, and lack of local hygiene can contribute for initiation of the pathology.

Treatment

Conservative and Non Operative: Conservative treatment includes dietary modifications like high fibre diet, hot water bath[5], lignocaine jelly 2% application[5], stool softener e.g.: lactulose, Oral Nifedipine[6], Local application of vasodilators: nitric oxide donors such as glyceriltrinitrate [GTN][7] or isosorbiddinitrate, the calcium channel blockers nifedipine and topical diltiazem[8] ointment are known to cause a chemical sphicterotomy leading to healing of fissure.

Surgical treatment

It includes stretching of anal sphincter [9], excision of the anal fissure fissurectomy [10], Fissurectomy with immediate skin grafting, Division of internal anal sphincter[11], Lateral subcutaneous internal sphicterotomy[12], Carbon dioxide laser surgery, Lateral subcutaneous internal sphicterotomy and radio frequency surgery.[13,14] Study conducted by Liratzopoulos N[15], Efremidou EI, Papageorgiou shows that at present LIS is the gold standard procedure of choice for the treatment of chronic idiopathic fissure in Ano. Various authors defend the percutaneous LIS (PLIS) whilst others the OLIS**.** Satisfactory results can be achieved with either techniqueand there is no clear consensus as to whether one technique should be performed over the other. Several studies have reported that and same study supports that, there were no significant differences in pain scores or incontinence rate between open and closed internal sphicterotomy. Personal experience with 2,108 open, ambulatory, lateral sphicterotomy with follow-up of 4–20 years is presented. Patient satisfaction was 96%.Lateral sphicterotomy is a safe, low-cost operation with a Very high long-term success rate and a negligible rate of complications. In our study we have performed procedures in SA and GA as we perform this procedure in lithotomy position comfortable for surgeon and patient. Clinical prospective study was undertaken in patients undergoing open LIS demonstrated that OLIS up to the dentate line does not have a higher rate of Incontinence. In our study also there temporary flatus incontinence was observed in only 4 patients. As recurrence at 3 yr follow up is minimal this procedure has satisfactory results in our study.

CONCLUSION

Internal spincterotomy is the gold standard for chronic fissure in ano. We have to remove associated skin tag, hypertrophied anal papilla in all patients for better patient compliance. Results and complications when compared with other studies it appears that open and closed sphicterotomies are similar. We should perform the procedure in which we are familiar and which gives good results. Lateral Internal Sphicterotomy by open technique gives excellent results in chronic fissure in ano for relieving post defecation anal pain in long term follow up with very minimal recurrence and fear of incontinence.

REFERENCE

1. Kiyak G,Korukluoglu B, Kusdemir A, Sisman IC, ErgulE; Results of lateral internal sphincterotomy with open technique for chronic anal fissure: evaluation of complications, symptom relief, and incontinence with long-term follow-up.Dig Dis Sci. 2009 Oct; 54(10):2220-4. doi: 10.1007/s10620-008-0621-3. Epub 2009 Jan 1.
2. Samuel Argov,OlgaLevandovsky; Bnai Zion Medical Center, Haifa, Ḥefa, Haifa, Israel Open lateral sphincterotomy is still the best treatment for chronic anal fissure; The American Journal of Surgery 04/2000; 179(3):201-2.
3. Lund J N, Scholefield J H. The aetiology and treatment of anal fissures. Br J Surg. (1996); 83:1335–1344.
4. Jensen SL. Diet and other risk factors for fissure-in-ano. Prospective case control study. Dis Colon Rectum. 1988 Oct; 31(10):770–773.
5. Jensen SL. Treatment of first episode of acute anal fissure - a prospective, randomized study of lignocaine ointment vs. hydrocortisone ointment vs. warm Sitz bath plus bran. BMJ.1986; 292(6529):1167–1169.
6. Cook TA, Humphreys MM, McC Mortensen NJ. Oral nifedipine reduces resting anal pressure and heals chronic anal fissure. Br J Surg. 1999 Oct; 86(10):1269–1273.
7. Lund JN, Scholefield JH. Glyceryl trinitrate is an effective treatment for anal fissure. Dis-Colon-rectum 1997 Apr; 40(4):468–470.
8. Knight JS, Birks M, Farouk R. Topical diltiazem ointment in the treatment of chronic anal fissure.Br J Surg. 2001 Apr;88(4):553–556.
9. Saad AM, Omer A. Surgical treatment of chronic fissure-in-ano: a prospective randomised study. East Afr Med J. 1992 Nov; 69(11):613–615.
10. Nelson R. Operative procedures for Fissure-in-Ano. Cochrane Database Syst Rev. 2002 ;(1):CD002199.
11. Al-Raymoony AE. Surgical treatment of anal fissures under local anesthesia Saudi Med J. 2001 Feb;22(2):114–116.
12. Pernikoff BJ, Eisenstat TE, Rubin RJ, et al. Reappraisal of partial lateral internal sphincterotomy.Dis Colon Rectum. 1994; 37:1291–1295
13. Garner JP, McFall M, Edwards DP. The medical and surgical management of chronic anal fissure.J R Army Med Corps 2002; 148:230–235.
14. Thomson JPS, Nicholls RJ, Williams CB. Anal Fissure in colorectal diseasesLondon: William Heinemann Medical Book Limited; 1981. p. 312
15. Liratzopoulos N, Efremidou EI, Papageorgiou MS, Kouklakis G, Moschos J, Manolas KJ, MinopoulosGJ;Lateral subcutaneous internal sphincterotomy in the treatment of chronic anal fissure: our experience.J Gastrointestin Liver Dis. 2006 Jun; 15(2):143-7.

Source of Support: None Declared
Conflict of Interest: None Declared