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Research Article

Study of 100 Case of Chronic Fissure in Ano for Comparing Between Anal Dilatation and Lateral Anal Sphincterotomy

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Abstract: Anal fissure is common cause of anal pain. Exact etiology of anal fissure is not known, but it is commonly seen due to constipation and hypertonic anal sphincteric conditions. Studies on the method of treatment of chronic anal fissure ranges from medical application to surgery. We have study of 100 cases of fissure in Ano for comparing in between treatment options of anal dilatation (AD) and lateral anal sphincterotomy (LAS). Patients were divided in two groups by randomly. Our results shows that in pain subside in 40 pts out of 45 pts in AD group, 38 pts out of 44 pts in LAS group, bleeding subsides in all 39 pts out of AD group, 35 pts out of 39 pts in LAS group. Complete recovery was seen in 46 pts out of 50 in AD group and 45 pts out of 50 pts in LAS group. In our study it has been shown that all the patients after anal dilatation significantly reduces the anal pain and provide symptomatic relief that is slightly better than lateral anal sphincterotomy.
Keywords: Anal dilatation, fissure in Ano, Lateral anal sphincterotomy.

INTRODUCTION

Anal fissure is the most common cause of severe anal pain. The pain of anal ulcer is intolerable and always disproportionate to the severity of physical lesion. It may be too severe that patient may avoid defecation [1]. The etiology of anal fissure is not known. Anal fissure generally arise with local trauma cause by difficult defecation due to hart stool and internal sphincter hypertonic which in turn reduces blood flow to post wall and results in higher anal canal pressure even at rest. Thus anal canal often become chronic [2]. Studies on the method of treatment of chronic anal fissure ranges from medical application to surgery. There is no general agreement on ideal therapy for chronic anal fissure [3]. Recamier *et al.;* is widely cited as giving the first description of anal stretching. Since then, its popularity for treatment of anal fissure has waxed and waned [4]. Its uses recommended by Good shall by the turn of the century and later by Gabriel and other surgeon support this procedure because of its simplicity. But Rick Nelson *et al.;* did a systemic review and they found and stretching significantly increases the rate of flatus incontinence. [5] Mohammad Tyab *et al.;* studied the role lateral anal sphincterotomy (LAS) in the surgical treatment anal fissure. They conclude the LAS are safe and suitable procedure for patients with chronic anal fissure [6, 7]. We have therefore carried out a controlled prospective trial of two procedures performing in our department to compare the cure rate, post operative complication and cost effectiveness between anal dilatation (AD) and lateral anal sphincterotomy (LAS) in patients of chronic anal fissure.

MATERIAL AND METHODS

Between January 2014 to Jan 2015, Total 100 patients with posterior anal fissure, age 18 to 50 years of age were treated. Chronic anal fissure was defined as 'an ulcer in lower portion of anal canal with sentinel pile and hypertrophic anal papillae'. These 100 patients did not have inflammatory bowel disease, AIDS, tuberculosis, STD or medical related condition. The study was carried out after fully explanation to the patient and informed written consent was obtained from all patients. Patients were asked to fill out questionnaire that queried their symptoms. Anal pain was assessed before beginning of treatment and at follow up using a linear visual analogue pain scale. Total 100 patients were divided in two groups by simple random sampling and were allotted to procedure four finger anal dilatation (AD) group A, lateral anal sphincterotomy (LAS) group B. Patient was follow up after 6 weeks and further data regarding the post operative complications and other problem were obtained.

Surgical technique

Under spinal anesthesia anal dilatation was done by placing fully lubricated index finger of each hand in anal canal after one and other. Then exerting gentle but continuous outward pressure and with gradual relaxation of the internal sphincter middle finger of each hand was also placed in the anal canal. During this procedure the hand repeatedly moved all around in order to relax all the segment of the lower part of the internal sphincter. The procedure was stop when the internal anal sphincter was so much relax that the anal canal was accepting four fingers (two fingers of each hand) at a time without much force. LAS were done by division of internal anal sphincter up to 4 mm from medial to lateral.

RESULTS

No significant difference was detected between gender and age distribution of the patients. (Table-1) The distribution of pain, rectal bleeding and constipation which were presenting symptom of patients were not significantly different between the groups. These values are given in (Table 2.) Following AD the complains of pain in 40 patients out of 45, rectal bleeding in all 39 patients and constipation 26 out of 30 were significantly reduced. Following LAS complaining of pain 38 out of 44, rectal bleeding 35 out of 39 and constipation 27 out 33 were significantly reduced. These data were not significantly differing between our two groups. In AD groups' fissure healed after 6 weeks in 46 patients. In out of these 1 patients one left the study was designated as recurrence. Rest of 3 patient's pain diminished but constipation continues because these three patients were opium addicts. No anal incontinence or other complications were noted in the group who underwent AD. In LAS group fissure healed in 6 weeks post operative in 45 patients. In remaining 5 patients pain and constipation persisted, and to two of these patient rectal bleeding continues. Because of persistence of symptoms despite supportive treatment for one month, reoperation has offered. All the 5 patients were designated as recurrence. Four patients refused for surgery. One patient given consent. Contra lateral LAS done successfully in this patient healing was observed in one month. No incontinence was noted.

Table-1:Gender and Age distribution

	Anal Dilatation 50 pts	LAS 50 PTS	P VALUE
Gender	34 pts male 16pts female	32 males 18 females	NS
Mean of age ranges	32.67 (18 to 50 yrs)	34.87 (18 to 50 yrs)	NS

Table-2: Distribution of pain, rectal bleeding and constipation and fissure

	Time	AD group 50 pts	LAS 50 pts
Pain	Preop	45	44
	Postop	5	6
Bleeding	Preop	39	39
	Postop	0	4
Constipation	Preop	30	33
	Postop	4	6
Fissure	Preop	50	50
	Postop	4	5

DISCUSSION

Our data of 100 patients shows that age and sex distribution of patients was mainly 30-40 years of age and male predominance. These findings of our study were supported by various studies, which suggest that anal fissure is more common in young adult male group. [8] The most common complaint observed in patient with anal fissure were pain, rectal bleeding and constipation occur in 90% of the patient with perianal pain, 78% of patient with rectal hemorrhage and in 60% of patient with constipation. These results were supported by Morgan *et al.;* [9] Fries B *et al.;*, [10] Antebi E *et al.;* [11] Dupuytrens G *et al.;* [12] Anal dilatation is a method that has been used for a long time as fissure treatment and its advantage as it is easily applied, does not required much equipments and allowed patient to be discharge from hospital with in a day Sohn, N *et al.;* [13] Hancke E *et al.;* [14] Strugnell N.A *et al.;* [15] Oliver DW, [16] Boschetto, S. *et al.;* [17] However relapse and the anal incontinence rate after manual anal dilatation have always been controversial. In literature healing rate reported as 83-89%. But recurrence 17% and anal incontinence 12.5% value were representing as serious disadvantage. [13,15, 16]. The short coming due to uncontrolled improper approach of manual anal dilation. In Meta analysis report, in controlled proper anal dilatation acceptable result were obtained but large prospective randomized studies were required[18].

Currently LAS is a common surgical method which is utilized for the treatment of anal fissure [3]. In

the studies of Arroys *et al.;* after LAS minor incontinence was found 5% of patient, healing occur in 93-100% patients, recurrence occurred in 0-25% of patients and incontinence occur in 0-38% of patients [19]. In recent studies regarding to healing and recurrence LAS has been found better than lord anal dilatation method, [20] nitroglycerine [21] etc. In ours studies it was observed that after LAS healing rate and improvement in pain, rectal bleeding and constipation was 90, 76, 70 and 54% respectively. By 3rd post op. month with no incontinence occurred. Although it not statistically significant our result indicates slight superiority of manual anal dilatation.

CONCLUSION

In our study it has been shown that all the patients after anal dilatation significantly reduces the anal pain and provide symptomatic relief that is equivalent to LAS. Even with slightly better improvement in symptoms in comparison to LAS it is less invasive method for anal fissure. In our study we have seen that anal dilatation does not have any complication like incontinence or sphincter injuries. However it need more prospective and randomized controlled trials to compare to a conclusion at this stage as there is minimal literature and studies in favor of anal dilatation.

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