ORIGINAL ARTICLE

Analysis of Surgical and Medical Management of Anal Fissure

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ABSTRACT

Aim: To analyze Surgical and Medical treatment of Anal Fissure.
Methods: This was prospective study carried out in Surgical Department of NH Multan, from January 2016 to September 2016. A total of 75 patients from Surgical OPD were included in the study.
Result: Out of 75 patients, 49(65%) were male and 26(35%) were female patients. The patients were from the ages of 23 to 54. Painful defecation was present in all the patients (100%), constipation in 67(90%) patients, whereas bleeding per rectum in 52(70%). Sentinel pile was seen in 50(67%) patients and associated superficial fistula only in 1 patient.
Conclusion: It is concluded that lateral internal sphincterotomy is the most affective way of treatment of chronic anal fissure, whereas chemical sphincterotomy with topical glyceryl trinitrate is relatively less effective.
Keywords: Dentate line, lateral sphincterotomy, defecation.

INTRODUCTION

Anal Fissure is a linear tear or ulceration in the lining of the squamous epithelium in the anal canal distal to dentate line (mucocutaneous junction) due to local trauma. The fissure causes excruciating pain during defecation that persists for two to three hours. Hypertonicity and hypertorphy of the internal sphincter is so severe that it causes spasm, pain and ischemia leading to non-healing of the fissure[1].

The fibers of the internal anal sphincter are visible in the base of chronic anal fissure and often an enlarged anal skin tag is present in the anal canal proximal to the fissure known as sentinel pie[2].

The lateral internal sphincterotomy is the first line surgical option for all the fissures associated with hypertonicity and hypertrophy of the internal anal sphincter[3,4,5]. It can be performed using open or closed methods, depending upon the surgeon's choice.

Another procedure by advancement flap, is usually reserved for recurrent fissures or fissures with low pressure (Tone). The procedures, like lord's anal dilatation and mid-line posterior sphincterotomy, are obsolete because of high rates of recurrence, incontinence and delayed wound healing[6,7].

The conventional treatment of anal fissure is surgical lateral internal sphincterotomy. The alternative option of Chemical sphincterotomy using medication such as topical glyceryl trinitrate induces rapid healing of anal fissure. It is a new, easily handled and affective alternative to surgical lateral sphincterotomy[8]. It offers a significant healing rate for cute anal fissure and prevents it's evolution to chronicity[9].

The objective of the study was to analyze Surgical and Medical treatment of Anal Fissure

MATERIAL AND METHODS

This was a prospective study carried out in Surgical department NH Multan, from January 2016 to September 2016. A total of 75 patients form Surgical OPD were included in the study. Patients having anal fissure were diagnosed clinically and were selected according to inclusion criteria. All patients were divided in two groups, group A patients were treated surgically undergoing lateral internal sphincterotomy and group B patients were treated medically with topical 0.2% glyceryl trinitrate and adjuncts.

RESULTS

Among 75 patients, 49(65%) were male and 26 (35%) were female. All the patients were between the ages of 23 to 54 year. (Table-1) Regarding symptoms, painful defecation was present in all the patients (100%) constipation was a feature in 67 (90%) patients while bleeding per rectum was documented in 52 (70%) patients. Sentinel pile was found in 50 67% of the patients whereas associated superficial fistula was noted only in 1 patient. (Table-2) Anal Fissure was present at the posterior mid-line in 61(82%) patients, in 9(12%) patients fissure was lateral in position while in 5(6%) patients, it was

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present anterior mid-line (Table 3). Out of 75 patients, 48(64%) opted for surgical treatment and underwent lateral internal sphincterotomy, were placed in group A whereas 27(36%) patients opted for medical treatment with topical glyceryle trinitrate and adjuncts, were placed in group B (Table-4).

Table 1

Sex	**n**	**%age**
Male	49	65
Female	26	35
Total	**75**	**100**

Table 2:

Symptoms	**n**	**%age**
Painful Defecation	100	100
Constipation	67	90
Bleeding Per Rectum	52	70
Senile Pile	50	67
Superficial Fistula	1	1

Table-3

Anal Fissure	**n**	**%age**
Posterior Mid Line	61	82
Lateral	9	12
Anterior Mid Line	5	6

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Table 4:

Treatment	**n**	**%age**
Surgical (Lateral Internal Sphincerotomy)	48	64
Medical (Tropical Glyceral Trinitrate)	27	36
Total	**75**	**100**

DISSCUSSION

All the patients were given the surgical and medical options of the treatment and were placed in group A or B according to their selected choice after informed consent. In our study, 48(64) of the patients who opted for Surgical treatment underwent lateral internal sphincterotomy and all of them had well recovery in a short period of time but one of them had some soiling. All results are comparable to Lysy, who had 100% healing and 0% recurrence with lateral internal sphincterotomy.· Though, surgery for anal fissure is associated with few complications like permanent incontinence of faeces, transient in-continence of flatus and soiling but such complications can be prevented by the use of judicious surgical but such complications can be prevented by the use of judicious surgical techniques and by familiarity with anorectal anatomy. Gosselink found a flatus in-continence rate in 30% of the patients after lateral internal shincterotomy. In-another retrospective study where the patients underwent closed or open lateral internal sphincterotomy, 21% cases had a flatus or liquid incontinence. In our study, 27(36%) patients who opted for medical treatment underwent chemical sphincterotomy with topical 0.2% glyceryl trinitrate. 20(74%) of the were cured over a period of 06 weeks while 7(26%) of the patients had a prolonged duration of healing and 2 of them opted to undergo the Surgical treatment. Our result are comparable to some other studies who have shown healing rate upto 70% with topical glycerytrinitrate. Comparing the efficacy of surgical and medical options on the basis of effectiveness regarding the control of symptoms and side effects, both are comparable, though topical modality has a relatively higher recurrence and persistence rate but with insignificant side-effect like headache. Whereas, the surgical option, lateral internal sphincterotomy is associated with serious side-effects like permanent in-continence of faeces or flatus and soiling.

CONCLUSION

It is concluded that in patients with anal fissure, lateral internal sphincterotomy is the state of art gold standard procedure but associated with some serious side-effects, while chemical sphincterotomy with topical glyceryl trinitrate is a suitable and reliable alternative to lateral internal sphincterotomy which can be offered as a first line treatment to the patients presenting with anal fissure.

REFERENCES

1. Gott, M. D.; Peter, H. (5 March 1998). "New Therapy Coming for Anal Fissures". The Fresno Bee. Fresno, CA: McClatchy Co. p. E2, "Life" section.
2. "Common Anorectal Conditions". American Academy of Family Physicians.
3. "Anal Fissure – Causes". NHS Choices.
4. Collins, E. E.; Lund, J. N. (September 2007). "A Review of Chronic Anal Fissure Management". Techniques in Coloproctology. **11** (3): 209–223. PMID 17676270.doi:10.1007/s10151-007-0355-9.
5. http://my.clevelandclinic.org/disorders/anal_fissures/hic_anal_fissures.aspx
6. "Anal Fissure – Basics – Epidemiology". Best Practice. British Medical Journal. 23 April 2012. Retrieved 30 June 2012.
7. Basson, Marc D. (28 January 2010). "Constipation". eMedicine. New York, NY:WebMD. Retrieved 5 April 2010.
8. Nelson RL, Thomas K, Morgan J, Jones A (2012). "Non surgical therapy for anal fissure". Cochrane Database of Systematic Reviews. **2**: CD003431. PMID 22336789.doi:10.1002/14651858.CD003431.pub3.
9. Haq., Z.; Rahman, M.; Chowdhury, R.; Baten, M.; Khatun, M. (2005). "Chemical Sphincterotomy—First Line of Treatment for Chronic Anal Fissure". Mymensingh Medical Journal. **14** (1): 88–90. PMID 15695964.