CHRONIC ANAL FISSURE;
CHEMICAL SYPHINCTEROTOMY (NON SURGICAL MANAGEMENT)

ORIGINAL
PROF-1813

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ABSTRACT... Objective: To determine the role of chemical syphincterotomy as non surgical management of chronic anal fissure. **Study Design:** Descriptive. **Setting:** This study was conducted at Margalla teaching Hospital and United Medical center .Rawalpndi. **Period:** 1½ years. **Patients & Methods:** This study included 70 patients of either sex. A personal bio data and detailed history of dietary and bowel habits were registered. Topical 0.2% GTN (Gylciryltrinitrate) was applied to anal verge 2 times per day for the period of two months and its effects were noted. **Result:** 58 patients (83%) got symptomatic relief and 12 patients (17%) did not get improvement. **Conclusions:** Chemical syphincterotomy heals majority of the fissure . Topical 0.2% GNT ointment is widely used as a first line treatment in U.K . It is generally accepted as an effective treatment for chronic fissure .

Key words: Chemical syphincterotomy, glyceryl trinitrate,chronic anal fissure

INTRODUCTION

Anal fissure is a linear tear in the linning of distal anal canal below the dentate line. It is a common condition and is seen particularly in the young and otherwise healthy adults with the equal incidence across the sexes. The classical symptoms are pain during or after defecation accompanied by the passage of bright red blood per annus. Symptoms from the fissure cause considerably morbidity and reduction in quality of life[1]. On examination, the fissure may be apparent as the buttocks are aparted but increased spasm of anal sphincter often obscures the view. Early fissure is seen as sharply demarcated with fresh mucosal edge with the increasing chronicity, the margin of fissure become indurated and there is distinct lack of granulation tissue. Horizontal fibers of the internal sphincter muscle may be evident in the base of chronic anal fissure and secondly changes such as sentinel skin tag, hypertrophied anal papilla or degree of canal stenosis are often present.

Majority of fissure resolve either spontaneously or either the simple dietry modification to increase the fiber diet and use of stool softening agents. If fissure fails to heal with in six weeks despite dietary measures is designated as chronic. Fissure are usually single and in the posterior mid line but 10% of the women and 1% of the men have anterior fissure. Women following the child birth account for 3-11% of all chronic fissure and tend to have anterior fissure[2]. Multiple fissure indicates the underlying inflammatory bowel disease, syphillis, immunosrppresion, tuberculosis and malignancies.

Fissure that are resistant to treatment require further investigation like biopsy. Chronic anal fissure are associated with the raised resting anal pressure. Those persons with low fiber diet, appear to increased risk of developing the anal fissure[3].

PATIENTS AND METHOD

This study was conducted jointly at Margalla teaching Hospital and united Medical center Rawalpndi for the period of 1 ½ years from Feb 2008 to August 2009. It was approved ethically. The patients presenting with complaint of painful defecation were thoroughly evaluated. The personal biodata and detailed history were taken with the special focus to dietary habits, bowel habits ,anal discharge and painful defecation . Digital rectal Examination and proctoscopy were performed ,findings were recorded in the prepared proforma.

Proctoscopy would not be done in some of the patient become of pain. In majority of the patients posterior mid line ulcer was found. Chemical sphincterotomy, as a mode of non surgical treatment were explained to these patients and they willingly opted this treatment. During this two months treatment four follow up visits were ensured .0.2% Glyceryl trinitrate ointment was selected for chemical syphincterotomy.

These patients were advised to apply 0.2% GTN

ointment twice daily to distal anal fissure for 2 months. Five patients complained mild headache with this treatment. Four follow up visits at the interval of two weeks during this two months regime were carried out. On each visit patients were examined to assess the healing .

The effect of 0.2% GTN was noted in the proforma.

RESULT

Among 70 patients ,41 patients (58%) were below the age group of 20-29 years, 18 patients (26%)were in the age group of 30-39 years ,11 (16%)patients were above the 40 years (as shown in table-I) .52 patients (74%)were male and 18 patients (26%) were female in this study (shown in the tableII) .Over all 58 patients (83%)showed symptomatic relief. Treatment went successful in these patients while 12 patients (17%) did not get symptomatic relief.

Table-I. Distribution of patients according to age group in years

Age group in years	No. of patients	%age
20-29	41	58%
30-39	18	26%
>40	11	16%

Table-II. Distribution of patients according to sex

Sex	No. of patients	%age
Male	52	74%
Female	18	26%

Table-III. Outcome of our study (n=70)

Patients	%age	Outcome
58	83%	Treatment remained successful
12	17%	Treatment went unsuccessful

DISCUSSION

Patients with the chronic anal fissure generally have the raised resting anal pressure due to hypertonicity of the internal sphincter. They may have the abnormal recto-anal inhibitory reflex[4].

Treatment option for chronic anal fissure are surgical and non surgical. Surgical procedure which include (Manual anal dilatation) or incise (Lateral sphincterotomy) reduce the anal pressure and lead to healing in majority of the chronic anal fissure. While non surgical treatment include the pharmacological agents that relax the internal anal syphincter. Drugs appears to have reversible effect on the internal anal syphincter muscle, resting anal pressure return to pre treatment value even after the fissure has healed suggesting that internal syphincter may pre date the onset of a fissure[5]. Anal Spasm is probably not a response to pain as topical local anaesthetic alleviates the discomfort but does not reduce the spasm[6].

Chronic anal fissure has been described as a ischemic ulcer .Distal anal canal receives blood supply from inferior rectal arteries, branches of internal pudendal arteries. Angiography of inferior rectal arteries has demonstrated a paucity of arterioles at posterior commissure of the anal cannal, site for fissure predilection in 85% of the cases[7]. Manual anal dilatation, lasteral syphincterotomy and application of GTN ointment all lower the resting anal pressure and simultaneously enhance the local blood flow in distal anal canal of patients with anal fissure[8]. Lateral internal sphincterotomy and topical GTN successfully heal approximately 95%and 65% of the fissure respectively as local blood supply prior to treatment may have been inadequate for healing to occur[9].

Recognition of NO (Nitrous oxide) mediating the relaxation of internal anal syphincter has initiated widespread use of organic nitrate in the treatment of chronic anal fissure. Preparation of isosorbide dinitrate and GTN have been used with the success. Most studies reporting the healing in the majority of the cases[10]. Some patients with the treatment of 0.2% GTN develop headache as a side effect of treatment[11]. The higher concentration of GTN usually result in an increase severity of headache[12].

For the maximal benefits in clinical setting topical GTN should be advised for longer than 6 weeks and some

fissure may take up to 12 weeks to heal[13]. The long term follow up by questionnaire of the patients participating in the randomized controlled trial in U.K where twice daily 0.2%GTN healed their fissure reported a recurrence of the symptoms in 27 patients within 2 years over two third of these resolved with further GTN[14].

It reveals that treatment with GTN seems to be as effective for the recurrent as for the primary .SAMAD A[15] reported the healing in 92%of patient with GTN treatment which closely matched to our study result in which healing of fissure was observed in 83% of patients with 0.2% GTN treatment.

Hashmat A[16] noted the healing of fissure in 64.3%patients with GTN treatment.

According to Zarin M[17] , complcte resolution was observed in 59% of patients while 30% had the partial response.

Hashmi F[18] found GTN treatment as effective mode of therapy in healing of chronic anal fissure.

CONCLUSIONS

0.2%GTN treatment has added advantage over the traditional surgical procedure (Mannual Anal dilatation or internal sphincterotomy) as both of these carry risk of anal incontinence, therefore chemical sphincterotomy is now accepted as first line of treatment in majority of patients.

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