Original Article

Chronic anal fissures- association with sentinel skin tag

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ABSTRACT

Objective

To compare characteristics of the chronic fissures which healed with pharmacological agents with those which ultimately required sphincterotomy.

Methods

This cross sectional comparative study was performed on 180 patients who presented with chronic anal fissure. Out of them, 31 patients underwent lateral internal sphincterotomy (LIS) due to non-healing or recurrence despite at least 6 weeks therapy of 0.2% Glyceryl trinitrate (GTN) ointment. The frequency of multiplicity and any association with skin tags or hemorrhoids was noted in two groups using chi-square test for statistical analysis.

Results

Out of 180 patients, 149(82.8%) healed with GTN ointment, 31(17.2%) underwent LIS. 39(21.7%) patients had associated skin tag, 23(12.8%) had hemorrhoids and 12(6.7%) had multiple fissures. There was significant association of skin tags with fissures undergoing LIS ($p < 0.001$).

Conclusion

Association with a sentinel skin tag is a predictor of failure of medical treatment for chronic anal fissure. (Rawal Med J 2010;35:).

Key words

Chronic anal fissure, sentinel skin tag, lateral internal sphincterotomy.

INTRODUCTION

Chronic anal fissure is a linear tear in anal mucosa which persists for more than 6 weeks.[1-3] It is an extremely painful condition with an incidence of about 10% in general surgical practice.[1] It causes significant functional and psychosocial impairment.[4] Several treatment options are available and lateral internal sphincterotomy (LIS) was considered as "gold standard" until the successful use of topical agents including nitric oxide donors, calcium channel blockers and botulinum toxin .[1,2,5-8] Since surgery is associated with a small but definite risk of permanent incontinence, initial treatment now usually comprises of the topical agents.[2,5,8-10] Surgery in most cases is reserved for persistent chronic anal fissures which are resistant to chemical treatment.[1,10,11] The chemical treatment although effective has its drawbacks in the form of the need for multiple applications, side effects especially headache, tachyphylaxis, noncompliance and up to 60% recurrence.[1-3,10,12,13] It also takes longer time to produce symptomatic relief as compared to the lateral sphincterotomy.[1] There are a very few studies in literature regarding any morphological features which can identify the fissures which will prove to be resistant to healing with topical pharmacological agents.[8,14] Identification of such features can lead to early operative management reducing the time needed for an unsuccessful trial of chemical treatment.[14] Thus, considerable shortening in the duration of treatment can be achieved ultimately improving the quality of life in these patients. The aim of this study was to determine any significant clinical features associated with the chronic anal fissures resistant to "chemical sphincterotomy".

METHODS

From January 2008 to December 2010, 230 female patients with chronic anal fissures were recruited in the study. Anal fissures were diagnosed on clinical examination and patients having symptoms for more than six weeks duration were included in the study. Those with associated inflammatory bowel disease or malignancy were excluded from the study. The morphological features of the chronic anal fissures were noted at the time of first examination. The features recorded included multiplicity of the fissure, associated sentinel skin tag, hemorrhoids or any other perianal pathology. All of the patients were given 0.2% glyceryl trinitrate ointment (GTN) for application in lower anal canal twice daily for at least six weeks and were followed up after two months. Those patients who had continuing symptoms along with the persistent fissure after two months or who presented with a recurrence, underwent LIS. A recurrence was defined as a chronic anal fissure which had healed at two months follow up but recurred again. All recurrences were confirmed on digital rectal examination. After LIS, fissures were labeled healed after clinical examination at four weeks. The data was analyzed using SPSS (version 15). Frequencies were calculated for all the characteristics in both groups and compared using chi-square for determination of significance.

RESULTS

230 female patients were enrolled in the study, out of which 50 were lost to follow up at 2 months. Remaining 180 patients were evaluated at 2 months. The fissures healed in 154 patients initially and 26 patients, who had not heal, underwent LIS. Out of the 154, 5(3.25%) patients developed recurrence and underwent LIS again.

Table 1. Features of chronic anal fissure.

Morphological features	Healed with 0.2% GTN n=149	Not healed/Recurred with 0.2% GTN n=31
Skin tag	13	26
Multiple fissures	8	4
Hemorrhoids	18	5

The morphological features observed and compared are shown in table I. Association of skin tag with fissures not healing with GTN ointment was statistically significant ($p< 0.001$). Association with presence of multiple fissures ($p=0.126$) and hemorrhoids ($p=0.539$) was not significant

DISCUSSION

There is lack of a uniform definition for the chronic anal fissure in literature. Most studies include patients having symptoms for more than 4 to 6 weeks.[1,2,11] Certain morphological features of the chronic anal fissure like presence of a sentinel pile and exposed internal anal sphincter fibers are described by most authors along with the time duration of symptoms.[1,11,15] However, this inclusion criteria is not always strictly followed except the duration of the presence of symptoms of fissure.[2,12,16] There is a need of uniformity in this respect as our results show that morphological features of fissures are closely related to their behavior and response to different treatment modalities. It is interesting to note these morphological features of chronic anal fissure so constantly described are actually present in less than half of the patients whose fissures are labeled as chronic, based on the temporal definition.[12,14] It is, therefore, logical to recognize that this inconsistency in definition will also lead to misinterpretation of data presented in the clinical trials related to this disease entity.

In our study, 82.8% fissures healed with GTN ointment, similar to other studies.[3] The results vary between 40 to 90%, probably due to lack of a single definition for inclusion.[2,3,16] There was no difference in both the groups regarding multiplicity of the fissures and associated hemorrhoids except sentinel skin tag. We noted that presence of a sentinel skin tag significantly predicted the failure of conservative treatment. The strong association of anal fissures resistant to healing by chemical sphincterotomy with sentinel skin tag has also been shown in other studies.[5,8,14,17] They have also suggested that people having associated skin tags should have LIS as the preferred treatment option unless there is high risk for post operative incontinence.[8]

Although sentinel skin tag has been mentioned in literature as one of the signs of chronicity of the anal fissure, it is not present in 100% of the cases.[8,12,14] This was seen in our study as well, in which only 49 out of 180 (27.2 %) patients had a sentinel skin tag and majority of them were associated with fissures resistant to pharmacological treatment. The studies which show a high number of sentinel tag in their patients (> 70%) have actually recruited patients after a failed trial of pharmacological agents.[8] The exact reason for the formation of this skin tag is not known.[11,18] The reason of failure of “chemical sphincterotomy” in these patients can only be speculated. Whether this represents extreme chronicity of the problem of constipation or hinders somehow in the delivery of the adequate dose of the topical agents in the region is not clear. Whatever the reason may be, the chances of failure of the conservative treatment in them are high.[8,5,17]

The literature on treatment options for chronic anal fissure is divided between the proponents [8,11-13] and opponents of surgery.[2,10] Not all chronic fissures are so “chronic” as to warrant surgical intervention from the outset and those that are, should not have endless trials of local medication. In this regard recognizing the fissures which are going to prove resistant to medical treatment from the beginning is of utmost importance so that appropriate treatment modality is chosen from the beginning.[12,14,19] In conclusion,

association with a sentinel skin tag is a predictor of failure of chemical treatment and LIS should be considered early for chronic anal fissure.

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