A Clinical Study of Fissure in Ano at Tertiary Center in North Telangana

Y Narendra[1], K Naveen Kumar[2], Samir Ahmad[3]

[1]Professor , [3]Second year Post Graduate, Department of General Surgery, Prathima Institute of Medical Sciences, Karimnagar, Telangana, [2]Medical Officer, GCD Kazipet, Warangal, Telangana.

Address for correspondence: Dr Y.Narendra, Professor , Department of General Surgery, Prathima Institute of Medical Sciences, Karimnagar, Telangana, India.

E-mail : ynarendra.dr@gmail.com

ABSTRACT

Introduction: An anal fissure is a distressing problem faced by a patient. It is one of the commonest painful anal condition. It is relatively simple to treat with rewarding results. However, disastrous consequences can occur with complications of surgery, with ensuing lifelong distress for the patient.

Aims and Objectives : The present study was done to know the various clinical presentations for fissure in ano, and to evaluate and develop various guidelines both conservative and surgical management.

Materials & Methods: Patients who came to surgical OPD of Prathima Institute of Medical Sciences, with fissure in ano were examined, evaluated and treated in between October 2014 to October 2016 are considered for this study. The total number of cases studied is 96. This is a prospective study.

Results:

The incidence of acute anal fissure are more than chronic fissures. They are treated medically and surgically (dilatation and sphincterotomy). Average age incidence was in third decade. The incidence was more in males then females. All the cases in the study group were of primary type of anal fissures. Commonest presenting symptom was pain during defecation, followed by bleeding, mass, hard stools and pain abdomen. The commonest site of anal fissure was in the posterior midline. Post operative soiling in cases who underwent dilatation is unacceptably high, hence this procedure is not recommended. Lateral internal sphincterotomy is the treatment of choice for chronic fissure in ano.

Conclusion: Fissure in ano is the commonest painful anal condition and its treatment of choice is lateral internal sphincterotomy because of its excellent post operative results, quicker healing of fissure and minimum post operative complications.

Keywords: Fissure-in-Ano, Anal Fissure, Sentinel Tag, Sitz Bath, Lateral Internal Sphincterotomy.

INTRODUCTION

An anal fissure is a distressing problem faced by a patient. It is one of the commonest cases presenting to the surgical OPD. The condition is relatively simple to treat with rewarding results. However, disastrous consequences can occur with complications of surgery for the disease, with ensuing lifelong distress for the patient. This common disease which essentially consists of a crack in the squamous lined part of anal canal is remarkably constant in position; midline posteriorly, with very few exceptions. It occurs in all age groups with equal prevalence in men and women. Its anatomical location to which social stigma is attached adds to the morbidity, as the patients generally avoid talking about anal problems directly. Most of the patients suffering from fissure in ano present with multiple non specific complaints. Anal fissure is a common disorder, but its exact incidence is unknown. The condition may frequently be misdiagnosed as hemorrhoids by primary care providers. The clinical hallmark of anal fissure is pain during, and especially after, defecation. The pain may be short-lived with acute fissures, but may last hours or even become continuous in chronic cases. The aetio-pathogenesis of fissure-in-ano is much debated and varied causes have been put forth include the following: The anatomic angulation of anal canal, the elliptical shape of external sphincter leaving the posterior midline quadrant of internal sphincter unsupported etc, the spasm of the internal anal sphincter inverts the edges of the ulcer and thereby healing is hampered and the studies in manometric pressures of the anal sphincter in normal individuals and fissure patients point towards an underlying sphincter hypertonia that aids in production and persistence of anal fissure.

MATERIALS AND METHODS

Patients who came to surgical OPD of Prathima Institute of Medical Sciences, Karimnagar with fissure in ano (acute and chronic) were examined and treated in between October 2014 to October 2016 are considered for this study. The total number of cases studied in the present series is 96. This is a prospective study done to develop guidelines for conservative and surgical management for our hospital. All the 96 cases were evaluated by documenting history, physical examination findings and

laboratory investigations as required. Sigmoidoscopy was done in selected cases. Cases were admitted prior to surgery to permit pre-operative investigations and preparation. Type of the surgery performed was based on the symptomatology duration of the disease and associated other anal conditions like hemorrhoids, perianal abscess or fistula-in-ano. Associated anal conditions were surgically treated at the same time. Associated sentinel pile excision was also done in cases with sentinel pile. During immediate post operative period, patient was monitored for any immediate post operative complication. Patients were allowed oral liquids form the same evening onwards, if no associated nausea or vomiting was present. Anal pack was removed on the same evening, stool softener and laxative was advised. During the post operative period the relief of pain, healing of fissure, disturbances of anal continence were particularly looked for, along with any other associated complications like infections, bleeding, perianal ecchymosis or edema , prolapse of internal piles and anesthetic related problems.

Sitz bath was advised to all post operative patients from first post operative day onward. Laxatives were advised for 6 weeks postoperatively. All the patients were advised to come for review after 4 weeks and 12 weeks.

Inclusion criteria were both sexes, age above 18 years and below 80 years and associated with other abnormalities like fistulas, abscess etc. Exclusion criteria were fissures with massive bleeds, fissure due to secondary causes like TB, HIV, Crohn's and previous anal surgeries for any cause.

RESULTS

In the present study majority of the patients are in the age group of 31-40 years (36.45%), followed by the patients in the age group of 21-30 years and 41-50 years (19.79%). The youngest patient in the present series is of 18years and the eldest is of 80 years.[Table1]. The total number of male patients in the present study is 58 and that of females is 38. The male to female ratio is 1.52:1.

Table 1 : Age Distribution of study participants

S.No.	Age group (years)	No. of patients	PERCENTAGE (%)
1	18-20	13	13.54%
2	21-30	19	19.79%
3	31-40	35	36.45%
4	41-50	19	19.79%
5	51-60	06	6.25%
6	61 above	04	4.16%
		Total 96	100%

The commonest presenting symptom was pain during and soon after defecation which was complained of by all the 96patients. The next common symptom was bleeding during defecation which was seen in 58 patients. Other symptoms were mass per anus in 7 patients, hard stools in 23 patients, constipation in 14 patients, constipation alternating with loose stools in 2 patients, irritation in anus in 13 patients and pain abdomen in 10 patients. In rest of the patients, symptoms were vague. 84 of our patients were of mixed diet and 12 patients were vegetarian by dietary habits.

84 patients had posterior midline fissure (87.5%) of which 52 patients were male 54.16% and 32 patients were female (33.33%). 6 patients had anterior midlines fissure (6.25%) of which 4 patients were female (4.16%) and2 were male (2.08%). 6 patients had both anterior & posterior fissures (6.25%)of which 4 were male (4.16%) and 2 were female (2.08%).

Anal conditions seen associated with anal fissure in the present study are- sentinel tag of skin, hemorrhoids, fistula-in-ano, peri anal abscess inter sphincteric abscess.36 patients (37.5%) had associated sentinel tag of skin. 12 patients(12.5%) had associated hemorrhoids. 2 patients (2.08%) had fistula-in-ano, 2 patients (2.08%) had inter sphincteric abscess and 2 patients (2.08%) had rectal mucosal prolapsed and 3 patients (3.12%) peri anal abscess. [Table2]

Table 2 : Associated Anal Conditions

S.No.	Condition	No. of patients	PERCENTAGE (%)
1	Sentinel tag	36	37.5%
2	Hemorrhoids	12	12.5%
3	Fistula-in-ano	04	4.16%
4	Intersphincteric abscess	02	2.08%
5	Rectal mucosal prolapse	02	2.08%
6	Peri anal abscess	03	3.12%

Out of 96 patients 54 patients were acute in presentation and managed conservatively. This include plenty of oral fluids, Increase roughage in food, usage of stool softeners, Sitz bath and application of 2% diltiazam, 0.2% GTN, 5% Lignocaine.

42 patients were surgically treated with one of the two methods. Associated sentinel pile excision was also done. In cases with associated hemorrhoids four patients underwent band ligation and twenty three patients underwent classical hemorrhoidectomy. Two cases of inter sphincteric abscess, three cases of peri anal abscess were treated by incision and drainage and Two cases of rectal mucosal prolapse was treated by stapler mucosectomy.

Immediate post operative relief from pain was studied in all 42 cases. Of the 42 cases in the present study, 36 cases had immediate pain relief within 1 or 2 days following surgery, 5 patients showed delayed pain relief where in patient felt relief after one week and one patient treated by anal dilatation complained no relief of pain even during follow up period.

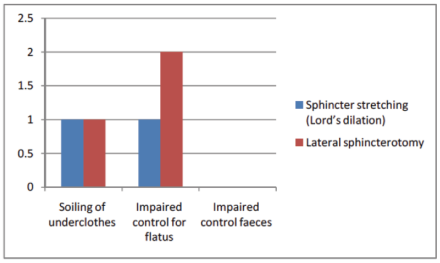
Of the 4 cases treated with anal dilatation, two patients showed immediate relief from pain, one patient showed delayed relief of pain, one patient had no relief. In the 38 patients treated with sphincterotomy, 34 patients (89.47%)showed immediate relief, 4 patients (10.52%) showed delayed relief and no patient had lack relief from pain. In all the 42 cases studied, the duration of hospital stay from the day of surgery up to the day of discharge was calculated.

Because of the considerable delay in investigations and fixed operative days, the preoperative stay in the hospital is significantly prolonged. Hence only the duration from day of surgery up to the day of discharge is considered as post operative stay. Mean duration of post operative stay was sphincter stretching was 5days and that of lateral internal sphincterotomy was 7 days.

The immediate postoperative complications in all 42 patients studied. Of the 42 cases 4 patients had postoperative hemorrhage from the operated site, Two patients developed postoperative infection treated by lateral sphincterotomy. The hemorrhage subsided immediately with firm pressure. That case responded to antibiotics and infection subsided in 3-4day time. No case in our study develop post operative fistula. No patient showed prolapse of internal piles probably due to the fact that associated cases with hemorrhoids were treated by surgery in the same sitting.

The minor disturbances of anal continence were studied in the immediate post operative period. Of the 42 cases in the present study, 5 patients developed minor disturbance of anal continence, 1 patient treated by sphincter stretching developed soiling of underclothes and impaired control of flatus on the first postoperative day. 6 of the patients treated by lateral sphincterotomy developed minor disturbances of continence of which two developed impaired control of flatus and one patient complaining of soiling of underclothes on the first post operative day. No patient developed total incontinence. [Fig 1]

Fig 1 : Minor disturbances of anal continence



Out of 56 patients treated conservatively only 18 patients turned up for follow up at 4 weeks. All the 18 patients had no fresh complaints and were doing well. Review at 12 weeks was not done due to poor turnout of patients.42 patients who were surgically managed came for review at 4 weeks. There were no fresh complaints. Wound was healthy in all cases. All of them recovered well. Review at 12 weeks was also done. All were healthy in regard to the anal problems they faced earlier. Proper documentation was not done due to poor turnout of patients.

DISCUSSION

Fissure in ano starts as an acute tear in the anoderm probably secondary to overstretching from passage of a large or hard stool. The angulation of anal canal and the elliptical shape of the superficial portion of the external sphincter explain the typical posterior midline position of the anal fissure. In females, the anterior segment of the sphincter is unprotected during normal vaginal delivery permitting anterior fissures to occur. The incidence of anal fissure is in the present study showed a slight male predominance. In study group of 96 patients, 58 are male, 38 are female patients. (M=60.41%, F=39.59%).

Fissure in ano is common in third and fourth decade of life, in a similar study conducted by M.R. Lock and James P S Thomson(1977) the peak incidence of anal fissure in males was in third decade and in females it was in second decade. The sex incidence in their study was similar to that found in the present study (males=58.5%, females=41.5%).[1] D.C Hoffmann and J.C. Goligher also reported similar findings.[2]

The commonest presenting symptoms in the present study was pain during defecation which was found in 100% of patients, followed by bleeding during defecation in 64.58%, hard stools in 26.08%, mass per anum in7.29%,difficulty in defecation in 10.86%,pain abdomen in 10.86% cases.

Locket al in their study have reported pain (87.8%), bleeding (82.4%), pruritis ani (44.1%), and anal lump (28.7%) and discharge (6.9%) of thepatients.[1] In the present study other symptoms like pain abdomen (10.86%),radiating pain in the leg (2.17%), and low backache (4.34%) are also noted. 47.91% of our patients complained of passage of hard stools, 25% of patients complained of constipation, 2.17% of patients complained of constipation alternating with passage of loose stools (that patient was taking laxatives irregularly) and 63.04% of our patients had normal bowel habits.

Mazier W.P.et al (1978)23 has reported similar findings where only 20% of patients gave a history of constipation.[3] In Lock study, only 14.3% patients complained of constipation and passage of hard stools. In the present study, 84 (87.5%) of patients had posterior midline fissures, 6 (6.25%) have anterior midline fissures and 6 (6.25%) had combined fissures. Of the

Six patients with anterior fissures Four (4.16%) are females and only Two (2.08%) were male patients. These findings are similar to previous studies that is Goligher series and study of Locket al.

Associated anal conditions like sentinel tag of skin (43.75%),hemorrhoids (28.12%), fistula in ano (4.16%) and perianal abscess (3.12%)are also found in the present study. In study of LOCK et al sentinel tag was found in 38.83% of patients. I.T. Khubchandani and J.F.Reed (1989)[4] has reported 32.2%and P.R Hawley(1969) has reported 60% of sentinel pile and 14% of concomitant hemorrhoids.[5]

Laboratory investigations were of little help in diagnosing fissure in ano in the present study, as there was no case of secondary type fissures. The present study has not excluded the patients with concomitant anal conditions; they have been treated accordingly along with the fissure in ano.

Out of 96 patients in the present study, 56 patients were treated by conservative means on OP basis and 42 patients were treated surgically by lateral anal sphincterotomy (38), 4 patients by anal dilatation. Sentinel tag when present was excised. Hemorrhoids, when associated with fissure were treated either by banding or by classical hemorrhoidectomy. Incision and drainage of Intersphincteric abscess were done in two cases along with fissure surgery.

CONCLUSION

Fissure in ano is the commonest painful anal condition. Although many predisposing factors are known, exact etiology is still obscure. Various methods of treatment are available, both medical and surgical. The present prospective study was done to know the various clinical presentations for fissure in ano, to evaluate the various treatment options both conservative and surgical. 96 cases of fissure in ano were examined. The incidence of acute anal fissure are more than chronic fissures. They are treated medically and surgically (dilatation and sphincterotomy).Average age incidence was in third decade. The incidence was more in males then females. All the cases in the study group were of primary type of anal fissures. Commonest presenting symptom was pain during defecation, followed by bleeding, mass, hard stools and pain abdomen. Constipation and passage of hard stools was found in only about one fourth of the cases. The commonest site of anal fissure was in the posterior midline. Associated conditions like sentinel pile, hemorrhoids, perianal abscess were also encountered and were treated in the same sitting. Post operative soiling in cases who underwent dilatation is unacceptably high, hence this procedure is not recommended. Lateral internal sphincterotomy is the treatment of choice for chronic fissure in ano. Thus lateral internal sphincterotomy is the treatment of choice because of its excellent post operative results, quicker healing of fissure and minimum post operative complications.

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