EFFICIENCY OF LATERAL INTERNAL ANAL SPHINCTEROTOMY BY CLOSED METHOD UNDER LOCAL ANAESTHESIA AS AN OUT PATIENT PROCEDURE

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ABSTRACT

Chronic anal fissure is one of the main proctological disorders encountered in surgical outpatient departments, due to its high prevalence and the great discomfort involved.Though, the exact aetiology of primary anal fissure is still unknown, high resting anal pressure caused by increased internal sphincter tone appears to be the underlying pathological factor. So, the aim of this study is to determine the efficiency of the procedure of lateral internal sphincterotomy by closed method under local anaesthesia as an outpatient procedure. The clinical study was undertaken in all patients (70 patients, mean age 35 years) undergoing lateral closed sphincterotomy for chronic anal fissure (defined as anal fissure with > 6 weeks symptoms duration) from June 2005 to May 2006 who presented to Surgical OPD, in our hospital. Among 70 studied patients, 41 (58.5%) were females and 29 (41.4%) males. Age ranged from 16-63 years with the mean age of 35 years. Post-operatively, early complications included minor bleeding in two patients (3.4%) and incontinence of flatus in five patients (8.6%). In all the patients in our study lateral internal sphincterotomy was performed under local anesthesia and they were followed up for 4 months. 88% of patients were cured of their symptoms while only in 12% the fissure failed to heal. Lateral internal anal sphincterotomy by closed method under local anesthesia as an outpatient procedure has very good results in patients with chronic anal fissure who do not respond to conservative treatment.

KEY WORDS : Lateral internal anal sphincterotomy, Chronic anal fissure.

INTRODUCTION

Anal fissure results from longitudinal tear in the squamous epithelium of anal canal. Ninety percent are situated posteriorly and 10% anteriorly[1]. Chronic anal fissure is characterized by skin tag and hypertrophied anal papilla[2]. Though, the exact aetiology of primary anal fissure is still unknown, high resting anal pressure caused by increased internal sphincter tone appears to be the underlying pathological factor[3]. There is a vicious cycle beginning from a tear in the anoderm from forceful dilatation of the anal canal during defecation exposing the underlying internal sphincter muscle that eventually goes into spasm and fails to relax during next bowel movement. Further tearing results in persistent muscle spasm leading to relative ischemia of the anoderm causing persistence of symptoms and impairment of healing. The clinical history is typically cyclical; periods of acute pain are followed by temporary healing only to be followed by further acute pain. Inspection of perianal area is confirmatory in diagnosis. Digital examination is usually not possible because of severe pain. Lateral internal sphincterotomy emerged as the operation of choice for uncomplicated chronic anal fissure[4]. It is of two types, open and closed. Lateral internal sphincterotomy by closed method can be done under local anaesthesia[5], with less postoperative period of hospital stay and complications[6].

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AIM OF THIS STUDY

It is to determine the efficiency of the procedure of lateral internal sphincterotomy by closed method under local anaesthesia as an out patient procedure

PATIENTS AND METHODS

A clinical study was undertaken in all patients (70 patients, mean age 35 years) undergoing lateral closed sphincterotomy for chronic anal fissure (defined as anal fissure with > 6 weeks symptom duration) from June 2005, to May 2006 who presented to Surgical OPD,. Among patients, 29 (41.4%) were men and 41 (85.6%) were women. Atypical fissures associated with inflammatory bowel disease, cancer, or anal infections were excluded from the study. Exclusion criteria, also, were previous sphincterotomy or anal dilation and suspicion of malignant fissure or ulcer. The main complaints reported by all patients were persistent pain connected with defecation, small rectal bleedings, discharge and pruritis. In all of the patients conservative treatment had failed (lidocaine, hydrocortisone, glycerine trinitrate, sitz bath, and luxuatives). Closed lateral sphincterotomy was performed in all cases under local anesthesia using a short stab incision and blind division of the internal sphincter guided by the surgeon's finger. All operations were performed as a day case procedure in the Surgical OPD,

Ibn Sena Hospital, with no readmissions. In this series, 58 of the 70 patients were able to be followed up on regular basis for up to 4 months postoperatively and fissure healing was assessed by physical examination during patients' clinic visits after operation. The other 12 patients were lost and excluded from the study. Postoperative stay, relief of symptoms, symptoms of incontinence, time to fissure healing and complications were assessed.

RESULTS

Among 70 patients, 41 (58.5%) were females and 29(41.4%) males.
Age ranged from 16-63 years with the mean age of 35 years.
The maximum inciden of anal fissure was noted between 31-40 years (table 1).

(Table 1) Age range of patients

Age (years)	Frequency	%
10-20	7	10%
21-30	16	22.8%
31-40	23	32.8%
41-50	14	20%
51-60	8	11.4
61-70	2	2.8%

Pain, especially during defecation, was the principal symptom present in all the patients, more than 4 weeks in most. Bleeding per rectum in 18 patients (25.7%) and perianal swelling in 10 patients (14.2%). The anal fissure had been able to be seen in the posterior wall of the anal canal in 57 patients (81.4%) (table 2).

(Table 2) Presenting symptoms

Symptoms	Frequency	%
Pain	38	54.2%
Bleeding	18	25.7%
Perianal swelling	10	14.2%
Pruritis	4	5.7%

Post-operatively, early complications included minor bleeding in 2 patients (3.4%) and incontinence of flatus in 5 patients (8.6%) (table 3).

(Table 3) Early post-operative complications of Lateral Internal Anal Sphincterotomy. (n= 70)

Complication	Frequency	%
Bleeding	2	3.4%
Incontinence of flatus	5	8.6%

DISCUSSION

Chronic anal fissure is one of the main proctological disorders encountered in surgical outpatient departments, due to its high prevalence and the great discomfort involved. There were 70 patients in our study. The age range of these patients was 16-63 years with the mean age of 35 years. Thirty three percent of patients were in 31- 40 years age group followed by patients in the age range of 21-31years. Shafiqullah et al[7] reported 32% in 20-30years and 46% in 31-40 years age groups. Mean age reported in different studies range from 30-45years[8] but Cho DY noticed that confounding effects of age, gender, body weight, and height were not significant[9]. Among the seventy patients in our study, 57(81.4%) patients had posterior midline fissure while 11 (15.7%) were found to have anterior midline fissure. The increased number in posterior fissure support the fact that posterior fissure is more common than anterior one. Ninety per cent of acute fissures respond to conservative treatment with a fibre-rich diet and warm sitz baths. However, many acute fissures persist for several weeks and may become chronic. Conservative methods of treatment of chronic anal fissure have been proposed such as botulinum toxin[11-16], nitrate preparations[10,17], and nifedipine[18] and surgical treatments such as anal dilatation[19, 20], sphincterotomy[21-24], and advanced flap[22]. All these techniques aim at a high rate of healing in association with a low morbidity rate. Internal lateral sphincterotomy has been proven the procedure of choice in various comparative studies, since it exhibits the highest rate of healing associated with the lowest indexes of incontinence. Two types of internal lateral sphincterotomy have been widely discussed in the literature: open sphincterotomy, first described in 1951 by Eisenhamer[25], and closed or subcutaneous sphincterotomy, first described in 1971 by Notaras[26]. In all the patients in our study, lateral internal sphincterotomy was performed under local anesthesia and were followed up for 4 months. 88% of patients were cured of their symptoms while only in 12% the fissure failed to heal, although the symptoms had decreased in severity and the patients were not willing for further operations. Post-operative impairment of continence is not uncommon. Lewis et al[27] found some degree of incontinence in 17% of their patients; in two thirds of these patients, this complication was only temporary. Khubchandani and Reed reported postoperative soiling in 22% and grade-I incontinence in 35 % of patients after sphincterotomy[28]. In the present study, 8.6 % had mild soiling which resolved within 2 to 3 months. All of the above mentioned results are close to our results in term of success rate and rate of complications.

CONCLUSION

Lateral internal anal sphincterotomy by closed method under local anesthesia has very good results in patients with chronic anal fissure who do not respond to conservative treatment.

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