

# The Prospective Clinical Study to Assess the Prevalence and Treatment of Fistulas in Patients with Chronic anal Fissure (CAF)

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## Abstract

**Aim:** To search for the prevalence and treatment of a fistula in patients with chronic anal fissure (CAF). **Method:** We started to look the presence or absence of any local sequels in 67 patients around the fissure in consecutive patients with CAF in the Department of General Surgery J.L.N.M.C.H. Bhagalpur, Bihar, India for 1 year. The duration of symptoms and a history of previous abscess formation and/or drainage were asked in detail. In patients with fissure-fistula, fistulotomy/ fistulectomy was first performed because this part of the operation necessitated division of some of the IAS in some cases. The patients were examined on the 8th postoperative day, 1 month & 6 months postoperatively. **Results:** Patients who underwent surgery for anal fistula were analyzed. Of the 67 patients (aged 18-60 years), 44 were males and 23 were females. 44 patients were treated with LIS only; 16 patients were treated with LIS + sentinel pile excision and 7 were treated with LIS + fistulotomy with/without abscess drainage. **Conclusion:** It is the factor that determines the effectiveness of CAF in the treatment of anal fistula that develops as a result of the presence of CAF. In the treatment of CAF and anal fistula forming on the fissure background, adequate sphincterotomy is effective.

**Keywords:** Fistula, Fistulotomy, Sphincterotomy.

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## Introduction

Fissure refers to skin ripping, while fistula refers to improper tube-like connections or pathways between organs.

Anal fissures have several causes. Such include rectal cancer, vaginal delivery and persistent diarrhoea. Constipation or straining bowel movements are the most common causes of fissure. It tears the

muscles that govern the anal canal or inner rectum sphincters.

Anal fistula is an irregular passageway from the anal canal to the anus. Tunnels produced beneath the epidermis link the canals to the diseased glands. Fistulas are usually caused by past abscesses.

A fistula tract may develop multiple holes. Without treatment, one fistula might lead to more complicated fistulas. [1]

Fissures usually heal in a few days or weeks, frequently without any therapy. They are not known to create many issues. Contrarily, untreated fistulas might lead to problems. That's why it's critical to recognise your symptoms and get treatment [2].

A sentinel pile (external skin tag), a hypertrophied anal papilla, and a deep ulcer have historically identified CAF. 146 individuals had sentinel tags, and 7 suffered post-fissure granuloma or fistula, according to Gupta [3].

#### Methods:

The present study was conducted at Department of General Surgery J.L.N.M.C.H. Bhagalpur, Bihar, India for the period of 1 year.

#### Methodology

We started to look and note the presence or absence of any local sequels around the fissure in 67 patients coming to the hospital with anal fissure. The duration of symptoms and a history of previous abscess formation and/or drainage were asked in detail. Sentinel pile was defined as a single, nodular skin lesion of more than 3-4 mm adjacent to the fissure edge, differentiating it from the common elevated, oedematous borders of CAF

In patients with fissure-fistula, fistulotomy/ fistulectomy was first performed because this part of the operation necessitated division of some of the IAS in some cases. As we performed sphincterotomy in a spasm-controlled manner, the anal caliber was checked after fistula surgery and the operation proceeded with lateral internal sphincterotomy (LIS) if needed [4]. For an abscess, concomitant fistulotomy with incision and drainage was again done as the first step. Sentinel piles were excised with the cut mode of the electrocautery following LIS.

The patients were examined on the 7th postoperative day, at 1 month and 6 months postoperatively. Objective healing was defined as complete epithelization of the fissure base and if present, all raw areas created by sentinel pile excision or fistulotomy. Time of relief of pain and complications were also analyzed in the group of patients who underwent surgery. At 6 month's follow up, successful clinical outcome was defined as the lack of anal symptoms and objective healing of the fissure.

#### Results:

Of the 67 patients (aged 18-60 years), 44 were males and 23 were females.

44 patients were treated with LIS only; 18 patients were treated with LIS + sentinel pile excision and 9 were treated with LIS + fistulotomy with/without abscess drainage.

**Table 1: Patients (aged 18-60 years)**

| Parameters                        | LIS only<br>(n=44)     | LIS +<br>sentinel pile<br>excision<br>(n=16) | LIS+fistulotomy<br>with/without<br>abscess<br>drainage (n=7) |
|-----------------------------------|------------------------|--|--|
| Age (in years)                    | 30.62±19.43<br>(19-51) | 34.83±11.25<br>(21-46)                       | 39.5±5.21 (33-41)  |
| Male/ Female                      | 28/16                  | 10/6   | 6/1  |
| Duration of symptoms (in months)  | 27.04±25.29            | 14.76±9.25                                   | 21.59±15.52  |
| Time of relief in pain (in days)  | 2.25±1.06              | 2.15±0.77                                    | 4.47±2.12  |
| Objective healing at 1 month (%)  | 91.4                   | 87.7   | 71.6   |
| Objective healing at 6 months (%) | 95.9                   | 92.1   | 97.5   |

Of the 67 surgically treated patients, 44 underwent LIS (LIS-only group) as no additional sequels were detected. Two cases had bleeding that required additional hemostasis. Time of relief of pain was  $2.25 \pm 1.06$  days. Objective healing was achieved in 91.4% of the patients at one month's follow up and in 95.9% at six months.

Of the 67 patients who underwent surgery, 16 had sentinel piles. Sentinel piles were removed with their will and consent (LIS+ sentinel pile excision group).

7 patients had fistula formation at the fissure base, all on the posterior midline. 6 were male and 1 female. Only one of the fissure-fistulas was detected intraoperatively. All fissure-fistulas were treated with fistulotomy and LIS.

#### **Discussion:**

Infection and abscess may develop around the fissure, according to Corman [5]. Anal fissures have several causes. Such include rectal cancer, vaginal delivery and persistent diarrhoea. Constipation or straining bowel movements are the most common causes of fissure. It tears the muscles that govern the anal canal or inner rectum sphincters.

Anal fistulas aren't tears. It is an irregular passageway from the anal canal to the anus. Tunnels produced beneath the epidermis link the canals to the diseased glands. Fistulas are usually caused by past abscesses. A fistula tract may develop multiple holes.

Without treatment, one fistula might lead to more complicated fistulas. Some symptoms commonly associated with anal fissure include pain caused during bowel movement in the anal region. It is usually accompanied by a constant burning or itching sensation in and around the anus along with bloody stool. There are usually visible cracks and tears around the anal region as well.

Anal fistula comes with the symptom of throbbing pain in the anal region, which usually develops to be more painful over a period of time. There might also be redness and swelling around the anus, along with irritation of skin, pus and blood discharge, or even fever at times. Symptoms like these make it uneasy and difficult to sit down for long periods as well [2].

The most effective way to treat anal fistula and fissure is to opt for surgical options that completely cure the condition. Having said that, if the condition is diagnosed early, certain medications such as antibiotics, antipyretics and analgesics can be helpful. The most suitable treatment option can vary from individual to individual. It also depends on the type, location, severity and size of the fissure or fistula. Likewise, the recovery period can vary as well. In patients with fissure-fistula, fistulotomy/fistulectomy was first performed because this part of the operation necessitated division of some of the IAS in some cases. As we performed sphincterotomy in a spasm-controlled manner, the anal caliber was checked after fistula surgery and the operation proceeded with lateral internal sphincterotomy (LIS) if needed [4].

In this study, 44 patients were treated with LIS only; 16 patients were treated with LIS + sentinel pile excision and 7 were treated with LIS + fistulotomy with/without abscess drainage. Infected anal crypt glands as a cause for subcutaneous perianal fistula are supported by Golligher [6]. Fissure-in-anus as a cause for subcutaneous fistula is clearly described by both Golligher [6] and by Thomson et al [7].

In line with previous studies [8], we found men to be more frequently affected by anal fistula than women. This is attributable to the substantially higher prevalence of anal abscesses in men [9]. In our study also, men were mostly affected by anal fistula as compared to women.

For an abscess, a simultaneous fistulotomy with incision and drainage was performed as the initial step, as was the case before.

Following LIS, the electrocautery was used to excise the sentinel piles using the cut mode of the electrocautery.

### Conclusion:

CAF sufferers develop an abscess or fistula. Practitioners should carefully consider this frequently concealed fact. A clear etiological diagnosis is essential. In this case, the proctologist should perform sphincterotomy. Unaided by a fistulectomy, diet alone cannot alleviate these issues. A healthy diet encourages bowel movement. Diarrhoea or constipation may produce fissures. Prevention beats cure every time. Seek medical attention if you see a fissure or fistula. Controlled investigations are required to corroborate our results and characterise the influence of subsequent lesions on treatment outcome.

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