

## CASE STUDY ON SEHUND (SHARA STURA) IN THE MANGMENT OF FISTULA IN ANO

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## INTRODUCTION

Bhagandara is a common disease occurring in the ano-rectal region. Acharya Sushruta, the father of surgery has included this disease as one among the Ashtamahagada.<sup>[1]</sup> At first it present as Pidika around Guda and when it bursts out, it is called as Bhagandara. It can be correlated with Fistula in ano as de-scribed in western medical science. Fistula in ano is a tract lined by granulation tissue which opens deeply in the anal canal or rectum and superficially on the skin around the anus.<sup>[2]</sup> The true prevalence of Fistula-in-ano is unknown. The incidence of a Fistula-in-ano developing from an anal abscess ranges from 26-38%.<sup>[3]</sup> Treatment of fistula-in-ano is still a challenging job because of its complexity and recurrences. There are many surgical techniques that described in text from ancient age to till date.

Fistula in ano is an age old problem, involving the anorectal region. Its chronicity, recurrences and frequent acute exacerbations. Hippocrates (460 B.C.) described the use of seton to cure fistula in ano. He also favoured use of knife if not cured by seton. The first surgical lay open of fistula in ano as practised today was performed by John of Arderne in 1337 (Quoted by Perrin). Various treatments have been tried to cure fistula in ano including fistulectomy with primary closure and fistulectomy with skin grafting. Minor variations in classical operation of lay open have been added by Hanlay and Parks. The routine surgical treatment employed today is fistulectomy and fistulotomy. Thus, in principle the surgical treatment of fistula in ano has remained the same without much improvement. Moreover, the need of prolonged hospitalization, extensive mutilation of anorectal region, chances of recurrence and anal incontinence in some of the cases of high level fistula have encouraged us to try out a new indigenous ambulatory treatment of fistula in ano.

Great Indian Surgeon Sushruta narrated in his teachings the use of Kshara for cure of fistula in ano. The work of Sushruta was later compiled as "Sushrut Samhita" in the 5th century A.D. (as quoted by Sharma,<sup>[19]</sup>). Acharya Chakrapani Datta (10-11 Century A.D.) and Acharya Bhav Mishra (16-18 century A.D.) have described in their classical Ayurvedic texts, the method of preparation and treatment of fistula in ano by use of Kshara Sutra (K.S.).

## Etymology of Bhagandara

The word Bhagandara is made up by the combination of two terms "Bhaga" and "Darana", which are derived from root "Bhaga" and "dri" respectively.<sup>[6]</sup> "Bhaga" means perineal and perianal area and "Darana" means tearing sensation with massive tissue destruction. Hence the derivation leads to draw an impression about a typical pathological lesion at the perineal and perianal area

## AIM

1) To know the efficacy of Sehund in the mangment of fistula in ano.

## MATERIAL AND METHODS

## MATERIAL

Preparation of Kshara Sutra<sup>[2]</sup>

The materials used were cotton surgical thread No. 20, milk of Euphorbia neri-folic and powder of Rhizomes of Curcuma longa. The milk of Euphorbia neri-folic was collected in a clean receptacle by repeatedly incising the stem of the plant. Equalamounts of the milk of Euphorbia neri-folic and powder of dry Rhizomes of Curcuma Longa were thoroughly mixed together till a fine mixture was prepared. The cotton threads pre-cut in one meter length were now immersed in the mixture and left there for one to two hours. Then, these were taken out and dried in hot air oven. The impregnation of threads in the mixture was repeated seven times and Kshara Sutra thus prepared was sealed in glass tubes.

**Selection of cases**

Total patients - 40 suffering from fistula in ano.

**Inclusive criteria**

Physical examination was done

- 1) Inspection of the anus with visible sign of outer opening.
- 2) Red and inflamed area around anus.

**Local examination**

Local examination was conducted noting carefully the number, site, distance, discharge, tenderness, in duration and the positions of internal and external openings. Rectal and proctoscopic examination was also done in each case. Routine investigations like hemogram, urine, stool and X-ray chest were done in all cases.

**Exclusive criteria**

- 1) Diabetics
- 2) Hypertension
- 3) Below 16 year and above 50 years
- 4) Hiv HbsAg
- 5) Tuberculosis

**Application of Kshara Sutra**

All patients were advised a low residual diet, laxative and rectal wash before the application of Ksharasutra. Perineum was shaved and cleaned with soap and water. The patient was put in a lithotomy position and the perineum was prepared with antiseptic lotions. Adult cases were administered injection diazepam 10 mg intravenously and children were given general anaesthesia. The findings of local examination were again confirmed and probing done to know the extent and direction of the fistulous tract. Depending on the site of fistula, the index finger of the right or the left hand was passed into the anal canal and a silver malleable probe was passed into the fistulous tract gradually and cautiously by the other hand, till it touched the finger in the anal canal. The tip (3) of the probe was brought out of anus, by bending it. A suitable length of K.S. was cut and threaded through the eye of the probe [Fig. 1]. The probe was brought out of the anus leaving the K.S. in the fistulous tract. The Ksharsutra. Was now moderately tightened and tied outside the anal verge over a small piece of gauze [Fig. 2], Two additional knots were applied to keep the tension created by the first knot in place. Sterile dry gauze dressing was applied.

**Subsequent changes**

A new piece of Ksharsutra was replaced and tied on every 6th day in all the cases by rail road technique till the last K.S. gradually cut through the fistulous tract, leaving a small healing ulcer at the anal verge. No anaesthesia was required for these changes. The length of K.S. taken out on each occasion was measured and recorded. Shortening of the thread removed at each change indicated the shortening of the fistulous tract. The ulcer at the end of the cut through also healed in about seven days time. All cases were kept ambulatory

throughout the postoperative period. Oral analgesics were allowed in all cases and suitable antibiotic was administered in a few cases for 5 to 7 days, as they had significant discharge of pus.

**Follow up**

All the cases were examined every month for the first 3 months and every 3rd month thereafter. Anal defects and recurrences if any were recorded.

Total period of followup was 18 months.

**RESULTS**

Male patients were the usual sufferers (89.47%). Duration of the disease varied from 3 months to 3 years. Majority of the cases complained of pain, discharge and swelling in the perianal region. Twenty per cent fistulae were subcutaneous, 10% submucous, 45% intermuscular, 17.5% anorectal and 7.5% high level variety.<sup>[4]</sup>

[Table 1] gives the details regarding the number of fistulae, average initial lengths, average durations of cut through in days, average unit cutting time i.e., the number of days required to reduce the length of Ksharsutra by one centimeter and average durations of treatment in days in various types of fistulas encountered in the present series.

Ninety five per cent of the cases had complete cure while 5% had recurrence after treatment with K.S. The incontinence of faeces and flatus was not observed in any of the cases. The first application of Ksharsutra was easy in majority of the cases but some had difficulty. But all cases had successful application of Ksharsutra in the fistulous tract. Subsequent application of Ksharsutra was painless in 85.0%.

**DISCUSSION**

The routine surgical treatment of fistula in ano is by laying open the tract either by fistulectomy or fistulotomy. Many modification have been added to these operations. It is a common observation that in inexperienced hands, incontinence of faeces or stricture of the anal canal are frequent in cases of high level fistula in ano. The high recurrence of fistula in ano is another common problem.

In the present study all the cases were ambulatory after initial application and subsequent changes of Ksharsutra. A few cases were confined to bed for a day or two because of pain. All the cases were treated on outpatient basis; The unit cutting time in the present study was five days. The duration of treatment in the present study when compared to conventional surgical treatment of fistula in ano was less in submucous, subcutaneous and intermuscular fistula. In cases of high level fistulae and anorectal fistula it was very much less than the reported duration by surgical treatment of fistula in ano.<sup>[5]</sup>

In the present study it is 95.0%. The rate of recurrence after conventional treatment of fistula as reported by

Bennet<sup>[1]</sup> was 10 cases out of 118 and by Jackman<sup>[11]</sup> it was 215 patients out of 500.

The treatment of fistula in ano by Ksharsutra is simple, easy and safe, The chances of recurrence are very much less in properly selected cases of pyogenic fistulae in ano excluding horse shoe fistulae. The treatment can also be employed to severaly ill patients of hypertension, diabetes and heart disease.

#### **Mode of action of Ksharsutra is as follows**

1. The cut through of fistulous tract is effected by the pressure exerted on anorectal tissue by the moderately tight Ksharsutra tied in the fistulous tract.
2. The presence of K.S. in the fistulous tract does not allow cavity to close down from either ends and there is a continuous drainage of pus along the Ksharsutra itself.
3. The Ksharsutra slowly and gradually cuts through the fistulous tract from apex to the periphery. There is an ideal simultaneous cutting and healing of the tract and no pocket of pus is allowed to stay back.
4. The Kshara applied on the thread are anti-inflammatory, antislough agents and in addition, have property of chemical curetting. The K.S. remains in direct contact of the tract and therefore, it chemically cures out the tract and sloughs out the epithelial lining, thereby allowing the fistulous tract to collapse and heal.
5. The Ksharsutra due to its antibacterial property, does not allow bacteria to multiply in its presence.
6. The pH of Ksharsutra was towards the alkaline side and therefore it did not allow rectal pathogens to invade the cavity.<sup>[6]</sup>

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