



# Case Study of Ksharsutra Ligation with Partial Fistulectomy in the management of Anterior Trans-Sphincteric Fistula in Ano – Bhanagdara

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## ABSTRACT

**Introduction:** Perianal fistulas are prevalent in 0.01-0.05% of the population and are commonly associated with morbidity to the patient. Surgical treatment of fistulas frequently affects fecal continence so Sphincter saving techniques like Kshar-sutra and partial fistulectomy has been advocated to minimize risk of sphincter injury. Ideal surgical treatment for anal fistula should aim to promote healing of the tract, whilst preserving the sphincters and mechanism of continence. Hence partial fistulectomy with kshar-sutra ligation accepted in patient with anterior trans- sphincteric fistula

**Material & Method:** 32 Years male patient having anterior trans sphincteric fistula treated with partial fistulectomy with kshar sutra ligation. Total 4 sitting of kshar sutra therapy done.

**Result:** After 4 sitting of kshar-sutra therapy fistula track completely cut and patient was completely cured.

**Discussion:** Anal fistula plug is safe but modestly effective in long-term follow-up, with low success rates. Fibrin glue showed poor healing rate. FiLaC and VAAFT procedure are expensive and high recurrence rate. For the complex fistula surgical options such as partial fistulectomy and kshar sutra ligation seem to be relatively safe.

**KEYWORDS:** Trans Sphincteric Fistula, Bhagandara, Partial Fistulectomy, Kshar-Sutra Ligation, Sphincter Saving Procedure.

## INTRODUCTION

A fistula in ano is a common perianal condition that is associated with appreciable morbidity and inconvenience to the patient. Reed, pipe or flute in latin called as "Fistula". In simple terms, a fistula can be described as a chronic granulating track connecting two epithelium lined surfaces, either cutaneous or mucosal. Fistulotomy, fistulectomy and seton insertion are the most commonly performed surgical procedures for this condition. Hippocrates, in about 430 BCE, made reference to surgical therapy for fistulous disease and he was the first person to advocate the use of a seton (from the Latin seta, a bristle)<sup>1</sup> Susrutha has described explicitly the surgical procedure to be undertaken for each type of Bhagandara. The tract after probing has to be "laid open," and the internal opening identified is cut by the knife; or else, Agnikarma (type of parasurgical procedure in which thermal cauterization of tissue or body part is done akin to moxibustion) or Kshara (caustics) should be applied. This is the general surgical procedure for all types of Bhagandara.<sup>2</sup> Ksharasutra (medicated seton) is mentioned as the treatment of choice for Bhagandara by Charaka and Vagbhata.<sup>3,4</sup> Susrutha has mentioned Ksharasutra in the management of Nadivrana (sinus) and Bhagandara.<sup>5</sup> Although the preparation of Ksharasutra is not available in the earlier texts, later texts like Chakradatta and Rasatarangini have mentioned the details.<sup>6,7</sup> Ksharavarti is a type of plug prepared from caustic medicines, and it is indicated in the treatments of NadiVrana and Bhagandara. Due to the lack of a single appropriate technique for the treatment of fistula- in-ano, treatment must be navigated by the surgeon's experience and judgment. The surgeon has to keep in mind the tradeoff between the extent of sphincter division, postoperative healing rate, and functional loss. Ksharsutra has been used to manage anal fistula from hundreds of years; however, in the literature, ksharsutra were commonly used only for high or complex anal fistula in order to avoid fecal incontinence and recurrence.

This Ksharsutra offers a unique treatment modality by sparing the sphincter muscles and thus preventing incontinence. It also decreases the patient discomfort and loss of the job hours. It is simple and repeatable and a failure does not compromise the further treatment options

## MATERIAL & METHODS

This is a single case study of patient with fistula in ano. Patient came at shri atmanand saraswati Ayurveda Hospital, surat. Patient was examined at OPD Base. On examination we diagnosed a case of anterior trans sphincteric fistula in ano. In this case after all pre operative major profile and MRI, We performed partial fistulectomy and Kshar sutra ligation.

## CASE REPORT

### Chief complaints:

Patient complaints of pain at perianal region, with Boil at perianal Region, with itching and pus discharge from boil since 2 months

## Local examination

### On Inspection

One external opening noted at 12-1 o'clock position Approx 10 cm Away from anal Verge

### On Palpation

Induration at 12 – 1 o'clock position from Boil to anal Verge

### P/R Digital examination

Internal Opening at 12 o'clock position approx 1.5 cm from anal verge

### MRI report

Trans sphincteric track at 12 o' clock position which is extending at left paramedian location and reaching up to penoscrotal junction.

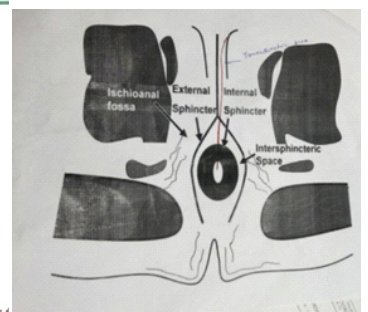
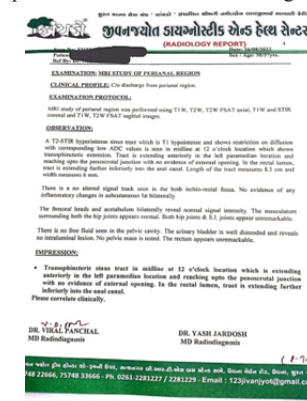


Image 1 MRI Report

### Pre-Operative Procedure

Inj. TT 0.5CC IM was given  
Consent was taken  
Proctolysis enema was given  
Inj. Monocef 1 gm IV a night before surgery

### Operative Procedure

Patient was positioned in lithotomy position  
Part painted and draped.  
Spinal anaesthesia given (inj. Anwin Heavy)

**Operative procedure**

Proctoscopy was done prior to any intervention. Methylene blue with distilled water in a 3 mL syringe was used to stain the entire tract by injecting into the external opening (12 o'clock position) using the hub of a 22G needle. The external opening was gently probed using a standard 3 mm blunt-tipped copper probe with an eye and probing done through previously identified internal opening (12 o'clock position). Copper probe is used because it is highly malleable. After that coring started and fistulous tract coiled out till external sphincter with clinical judgment. Then a Ksharasutra is tied to the eye of the copper probe and the probe is brought out through the anal canal, during the manoeuvre the Kshar sutra is also dragged along the course of the fistulous tract. Now the Kshar sutra which was brought through the only part of anal sphincters to internal opening, thus traversing the whole path of anal sphincters is tied by ksharasutra. This is a purely sphincter saving method, Around 3-4 cm part of track is tied over and this took around 4 weeks for completely cut through. Patient was advised to come for Kshar sutra change weekly once.

**Post-Operative Procedure**

Inj. Dynapar IM for pain 2 days  
 Inj. Monocef 1 gm IV bd \* 3 days  
 Inj. Amikacin 500 mg IV BD for 7 days  
 Inj. pan 40 IV bd \* 3 days  
 Tab. Levoflox 500mg 1bd\* 5 days  
 Tab. Pan 40 mg 1bd\* 5 days  
 Tab. DAN - P 1bd\* 5 days  
 Tab. Triphala guggulu 2-0-2\* 1 month



Image 2 Before surgery



Image 3 – after 2 sitting of kshar sutra



Image 4 – After 4 sitting of kshar sutra

**RESULT**

Total 4 sittings of Kshar-sutra therapy was done. Both remaining fistulous tract completely cut after 4 sittings and wound was completely healed within 1.5 months. Patient was completely cured with Kshar sutra therapy and took 1 year follow-up and there is no any complaint found by patient and there is no any sign of recurrence of fistula in ano after Kshar sutra therapy.

**DISCUSSION**

- The treatment of fistula in ano with above ayurvedic drugs is found satisfactory.
- In this case we have used both external and internal medications.
- Ksharasutra in ano-rectal disorders has shown good results.
- The ingredients of apamarg kshara sutra are Snuhi ksheera, apamarg kshara and Haridra powder.
- Snuhi ksheera having shodhana as well as ropana properties along with katu, tikta ras and ushna virya thus improve the process of healing; it cures infection and inflammation.
- Apamarg kshara has properties of kshara that is chhedana, bhedana, lekhana and tridoshaghna.
- Apamarg kshara on Ksharasutra cauterizes the soft tissue.
- Haridra powder has properties like Rakta shodhana, Twak doshahara, shothahara, vatahara, vishaghna and it is useful.
- The action of turmeric powder has the effect of bactericidal action with healing properties.
- Ksharasutra has got validation in modern books also and is a successful proven method for treating fistula in ano and other anorectal disorders.
- Triphala guggulu acts as vrana shodhana and ropana which helped in faster healing.

**CONCLUSION**

- Fistula in ano is an important commonest disease due to cryptoglandular infection and has a complication of ano-rectal abscess. All cases of fistula in ano should undergo Ksharasutra as it is associated with less chances of incontinence, has significantly less incidence of post-operative complications.
- Ksharasutra therapy is a very cost-effective treatment with no complications. Ksharasutra is very effective.
- Ksharasutra is a treatment of choice for high anal fistula with the least recurrence rate compared to other treatment modalities and can be considered as the gold standard treatment in most of the high anal fistulas.

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