



## A Case Study of *Ksharasutra* in the Management of *Bhagandara* (Fistula-in-Ano)

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### Abstract

A *Bhagandara* (Fistula-in-Ano) refers to an abnormal tract that links the rectum or anal canal to the outer perianal skin, frequently manifesting with one or more external openings. The *Ksharasutra* is a distinctive Ayurvedic surgical thread renowned for its efficacy in treating anorectal disorders, particularly fistula-in-Ano. A 38-year-old female patient registered at the OPD of Shalya Tantra, KDMGS Ayurvedic medical college & Hospital, with the complaints of swelling in the perianal area, persistent pain, itching, and mild purulent discharge for the last 10 months. The treatment involved an innovative sphincter-sparing approach, utilizing an adapted *Ksharasutra* therapy to enhance healing process and minimize post-surgical discomfort. Significant result was found in the fistula, with complete healing achieved within three weeks. The patient experienced no complications, and no recurrence was noted during the six-month follow-up period.

**Keywords:** *Ayurveda*, *Bhagandara*, *Fistula-in-Ano*, *Snuhi Ksharasutra*, Surgery.

### Introduction

*Bhagandara* is a medical condition marked by a division or interruption in the regions of '*Bhaga*', '*Vasti*' (Perineal), and '*Guda*' (Perianal). In the field of *Ayurveda*, *Bhagandara* is acknowledged as one of the *Ashtamahagada*, which means eight major diseases [1]. A fistula-in-Ano is described as an abnormal, ongoing passage that is lined with granulation tissue, connecting an internal opening in the anorectal canal to the perineum or surrounding tissues. Fistulas are inherently complicated and pose significant challenges for treatment due to the potential spread of sepsis into deeper tissues or multiple planes, often affecting 30% of the sphincter muscles [2]. *Ayurveda*, the ancient medical system of India, categorizes anal fistula as a condition referred to as *Bhagandara* and considers it a surgical issue, typically treated through excision or unroofing of the tract [3]. In the ancient text *Sushruta Samhita*, *Acharya Shusruta* recommended an alternative, safer, and less invasive approach using a medicated thread known as *Ksharasutra* [4]. *Ksharasutra* is a medicated thread created through multiple layers of drug coatings. It is a minimally invasive Para surgical procedure in *Ayurveda*. This treatment is primarily suggested for conditions such as *Arsha* (Piles), *Bhagandara* (Fistula-in-Ano), *Parikartika* (Anal fissure), *Dustavrana* (Chronic wound), *Nadivrrana* (Pilonidal Sinus), or in cases where conservative treatments have proven ineffective [5].

### Case Report

#### Chief Complaints

Patient complaints of swelling in the perianal region, persistent pain, itching, and mild purulent discharge for the last 10 months.

#### Demographic Information of Patient:

**Age:** 38 years,

**Sex:** Female

**Religion:** Hindu,

**Occupation:** Grocery shop owner

#### History of Present Illness:

A 38-year-old female patient registered at the OPD of Shalya Tantra, KDMGS Ayurvedic medical college & Hospital, with the complaints of swelling in the perianal area, persistent pain, itching, and mild purulent discharge for the last 10 months. She was apparently normal before 10 months. Since then, she has been gradually feeling symptoms such as itching, intermittent swelling in perineal area with pain. Hence patient has been consulted many doctors and received various medication, but not get a significant result. Simultaneously her symptom's increase day by day, so she is visited to our OPD for further treatment. Following a clinical evaluation, a diagnosis of *Bhagandara* (Fistula-in-Ano) was established.

**Past Medical History:**

She is known case of Hypertension in the last 2 years on regular medications. (Tab-Telmisartan 40mg once a day in morning)

**Clinical Findings:**

**Local Examination:** The patient was positioned in lithotomy, and the external opening was found to be about 3–4 cm from the anal verge, situated at the 7 o'clock position. During the digital rectal examination (DRE), an internal opening was detected at the 7 o'clock position, at the level of dentate line. Probing was conducted to delineate the course of the fistulous tract and to accurately locate the internal opening.

**Table 1:** General Examinations & Investigations:

General Examination	Systemic Examination	Blood Investigation
Pulse-100/min Spo2- 97% at RA BP- 130/80 mmHg Temp- Afebrile Appearance-fair Pallor/clubbing-Absent	RS- AEBE, Clear CVS- S <sub>1</sub> , & S <sub>2</sub> clear heard, Normal CNS- Conscious, Oriented P/A- soft, No dist., No tenderness, NAD.	CBC, CT, BT, and RBS, HbA1c results were normal and HHH tests were non-reactive. ECG- WNL.

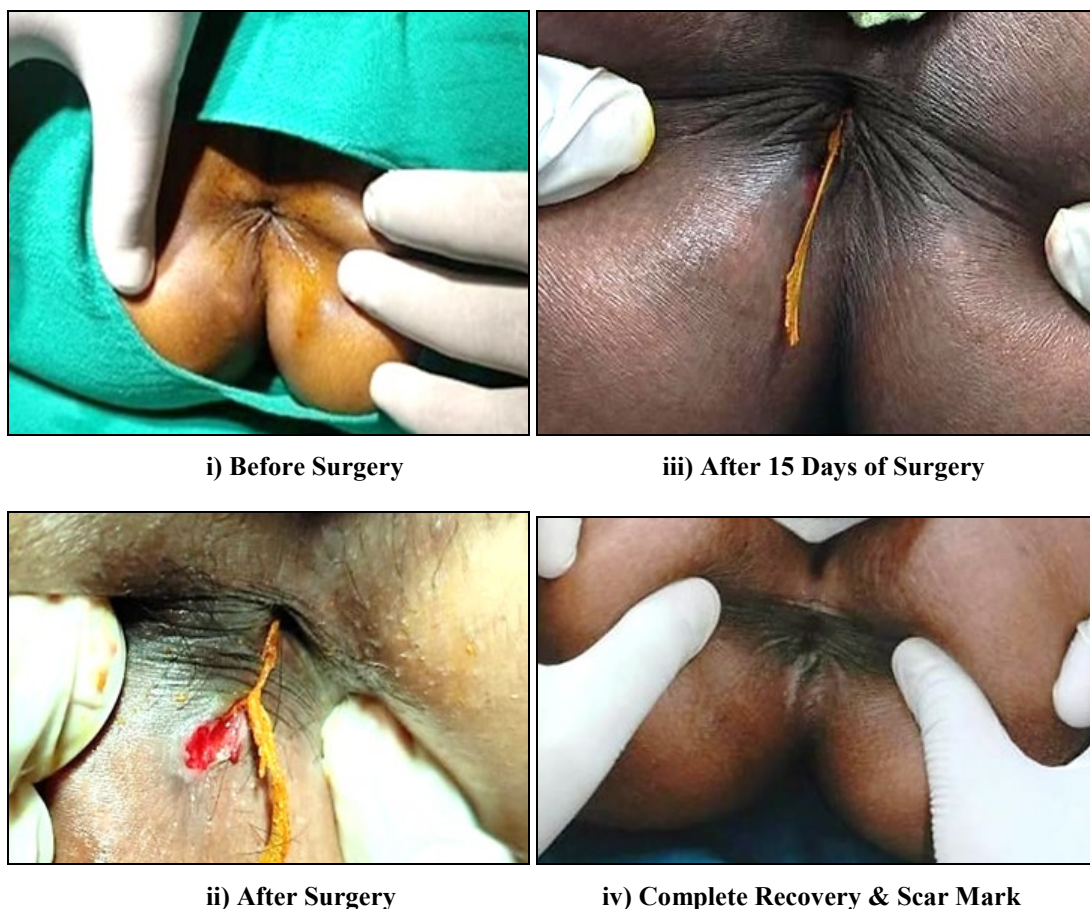
**Treatment Timeline**

Preoperative physician fitness was done under the department of *Kayachikitsa* (Dept. of Medicine). The patient was thoroughly informed about the procedure, and written informed consent was obtained before positioning the patient in lithotomy. The surgical area was cleansed with Savlon, spirit, and Betadine solution to ensure proper antiseptic and

aseptic conditions. The operative site was draped, and local anesthesia was administered using 5 ml of 2% Lignocaine. Following the administration of local anesthesia, a digital rectal examination was performed with 2% lignocaine jelly, which identified a palpable pit at the 7 o'clock position. Probing was conducted from the external opening at the 7 o'clock position, which traversed the tract and emerged radially from the internal opening. The external opening was appropriately enlarged, and the granulation tissue was completely excised. Subsequently, primary threading of the fistulous tract was carried out with precision. Haemostasis was successfully achieved, and all vital signs remained within normal limits. The patient was then transferred to the Shalya ward for continued observation and care.

**Follow-up and Outcomes**

The patient was instructed to uphold appropriate bowel habits and maintain local hygiene, which included regular sitz baths with warm water. During the course of treatment, the wound remained in excellent condition. *Kshara Sutra* therapy was initiated, with the thread being changed weekly using the Rail Road technique until the fistulous tract was completely divided. At the outset, the tract measured roughly 3-4 cm in length and was entirely severed within three weeks. The *Ksharasutra* replacement procedure induced a burning sensation in the anal area that persisted for about one day and diminished after the sitz bath. After the complete division of the tract, the patient was observed weekly for three months. The average rate of tract division was 1.4 cm per week. No signs or symptoms of recurrence were observed during the follow-up period. (Figure no.1)



**Fig 1:** Showing improvement before and after *Ksharasutra*.

### Discussion on Results

*Ksharasutra* therapy has demonstrated remarkable efficacy in treating anorectal conditions. The *Snuhi Ksharasutra* is formulated with *Snuhi Ksheera*, *Apamarga Kshara*, and *Haridra powder*. *Snuhi Ksheer* has cleansing (*Shodhana*) and healing (*Ropana*) attributes, bolstered by its *Katu* and *Tikta Rasa* and *Ushna Virya*, which help expedite wound healing and assist in minimizing infection and inflammation [6]. *Apamarga Kshara* represents the traditional characteristics which include *Chhedana* (Excision), *Bhedana* (Incision), *Lekhana* (Scraping), and *Tridoshahara* (balancing of all three *Doshas*). When applied in *Ksharasutra*, it produces a cauterizing effect on diseased tissue due to its corrosive properties (*Ksharana Guna*) [7]. *Haridra* (Turmeric) powder adds antibacterial, anti-inflammatory, and wound-healing benefits, thereby improving the overall therapeutic effectiveness of the formulation [8]. *Haridra* (Turmeric) is recognized for its *Rakta Shodhana* (Blood purification), *Twaka Doshahara* (relief from skin disorders), *Shothahara* (anti-inflammatory), *Vatahara* (relief from *Vata*), and *Vishaghna* (antimicrobial) effects. It is also advantageous for *Vrana Ropana* (wound healing). Turmeric powder demonstrates strong bactericidal properties and also aids in wound healing [9]. *Ksharasutra* is a therapeutic approach in *Ayurveda* utilized for scraping, draining, excision, penetration, debridement, and healing. It provides various effects such as *Dahana*, *Tridoshahara*, *Pachana*, *Ushna*, *Darana*, *Katuka*, *Tikshna*, *Shodhana*, *Vilayana*, *Shoshana*, *Lekhana*, *Ropana*, *Stambhana*, and *Krimighna*, among others, thereby offering therapeutic advantages in the surgical treatment of Anorectal Disorders [10].

### Conclusion:

In this case study, the patient has shown wonderful result fistula track was healed within three weeks. *Ksharasutra* treatment is an Ayurvedic Therapy that has been tested and proven for a long time. It provides minimal invasive surgical approach for the management of *Bhagandara* (fistula-in-Ano), with high success rate, minimal recurrence and overall quality of life.

### Acknowledgment:

Authors are very thankful to authority of KDMGS Ayurved college & Hospital, Chalisgoan, Maharashtra for their support.

### Conflicts of Interest: Nil

### Funding Sources: Nil.

**Patient's Consent:** The authors confirm that they have secured all required patient consent forms. In these documents, the patients have agreed to the publication of their images and clinical data in the journal. The patients acknowledge that their names and initials will remain unpublished and that all possible measures will be taken to safeguard their identity.

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