

Efficacy of Ksharasutra Therapy in the Management of Bhagandara (Fistula-In-Ano): A Case Study

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ABSTRACT

Bhagandara, or Fistula-in-Ano as it is termed in modern medical parlance, is a persistent and distressing condition that gives rise to an abnormal connection between the anorectal canal and the perianal skin. While conventional surgical approaches to the condition prove adequately effective, they tend to produce high rates of complications and recurrences. Hence, this study, which sets out to explore the effectiveness of *Ksharasutra*, an Ayurvedic para-surgical intervention, regarding the management and treatment of *Bhagandara*. *Ksharasutra* treatment is performed by inserting a medicated thread, prepared specifically for the purpose, along the fistulous tract, where the thread slowly cuts through the tract and healing it over a period. The patient chosen for inclusion in the case study is a 35-year-old male who displayed the classic characteristic signs of suffering from a low trans-sphincteric fistula on initial presentation, i.e. recurring secretion of blood, pus, and other discharge from a swelling in the perianal region as well as severe pain. The treatment was performed over 8 weeks, with regular weekly changes of the thread and visits to the clinic. Significant improvement was observed, including the complete healing of the fistulous tract, with no complications or relapses noted post-treatment. The study concludes the potential of *Ksharasutra* treatment as a viable alternative to conventional approaches to the treatment of *Bhagandara*, as it is not only safer a significantly lower rate of complications and recurrence but also promotes quicker healing and a higher quality of life for patients. The study underscores the need to develop the standardized protocol for treatment and test the long-term effects of *Ksharasutra* therapy for Fistula-in-Ano on broader sample sizes.

Keywords: *Bhagandara*, Fistula-in-Ano, *Ksharasutra*, Ayurvedic treatment, para-surgical procedure, case study.

INTRODUCTION

Bhagandara, typically known as Fistula-in-Ano in modern clinical terminology, is a chronic and debilitating anorectal condition characterized by the formation of a peculiar communication between the anal canal and external peri-anal area^[1]. The distal obstruction prevents the fistula from healing. Because cells are continually being turned over, there is constant debris in the fistula tract, which causes obstruction and prevents healing. The etiology of this circumstance is often related to an infection of the anal glands, which leads to the formation of an abscess, which, if not treated, can develop into a

fistula^[2]. Fistula-in-Ano clinically causes pain, perianal swelling, intermittent purulent discharge and occasional bleeding, which drastically impairs the patient's quality of life^[3].

In Ayurveda *Bhagandara* is included under the Ashtamahagada^[4]. The literal meaning of *Bhagandara* is “Darana” in *Bhaga*, *Guda* and *Basti Pradesha* that means splitting up or piercing of perianal area. Its pre suppurative stage is taken into consideration as *Pidika* and the suppurative level is referred to as *Bhagandara*.^[5]

The conventional management of Fistula-in-Ano predominantly involves surgical interventions inclusive of fistulotomy and fistulectomy. Although these tactics are extensively practiced, they are now not without drawbacks. Postoperative complications, such as anal incontinence, delayed wound healing, and recurrence, are not unusual challenges related to these surgical techniques^[6].

The roots of *Ksharasutra* remedy are deeply embedded in historical Ayurvedic literature, with classical texts such as the Sushruta Samhita detailing its use in the treatment of Nadi Vrana (sinus ulcers) and *Bhagandara* (fistula)^[7]. Modern clinical evaluations have corroborated the efficacy of *Ksharasutra* therapy, highlighting its ability to acquire a success outcome in Fistula-in-Ano control with minimum complications and decrease recurrence quotes as compared to traditional surgical tactics.^[8]

This technique involves using a medicated thread, known as *Ksharasutra*, which is prepared with the aid of coating a thread with latex of *Euphorbia neriifolia*, turmeric powder, and the alkaline ash of *Achyranthes aspera*. The medicated thread exerts a blended motion of slicing via the fistulous tract and promoting restoration through its antimicrobial and anti-inflammatory properties.

This case study aims to discover the application and efficacy of *Ksharasutra* remedy in the treatment of *Bhagandara* in a 35-year male identified with a low trans-sphincteric fistula, encompassing clinical presentation, treatment methodology, and results. By presenting a comprehensive analysis of this case, we explain the therapeutic potential of *Ksharasutra* therapy as an alternative to standard surgical methods, advocating for its broader adoption in medical practice.

CASE PRESENTATION

PATIENT DETAILS

History

A 35-year-old male patient visited the outpatient department of our institution with chief complaints of painful perianal swelling and intermittent purulent discharge persisting for three months. The patient, working as an office clerk, reported worsening of signs gradually, which substantially impacted his day-to-day activities, mainly sitting and walking. He had no history of systemic signs and symptoms including fever or notable weight loss. There was no remarkable medical history, inclusive of the absence of diabetes mellitus, immunosuppressive disorders, or different comorbidities regarded to predispose to fistula formation or complications.

Medical and Surgical History

The patient did not report any previous episodes of similar anorectal disorders or any sort of surgical interventions. There were no records of gastrointestinal disorders, inflammatory bowel sickness, or colorectal malignancies within the family. The patient had no longer received any previous remedies for the present circumstance and was seeking medical advice for the first time for this condition. His bowel behavior was stated as regular, without any episodes of constipation or diarrhea, indicating no gastrointestinal concerns.

Lifestyle and Occupational History

The patient's occupational records indicated a predominantly sedentary lifestyle, which is considered as a risk element for anorectal problems because of prolonged periods of sitting. The patient maintained a balanced diet and an overall healthful lifestyle, and not using an extensive use of tobacco or alcohol. His physical activities were moderate, aligning with his sedentary job nature.

Clinical Examination

The patient looked well on clinical examination and was in no acute distress. Vital signs, including temperature, blood pressure, and heart rate, were within limits. Perianal inspection revealed an external opening at the 7 o'clock role relative to the anal verge, with evidence of purulent discharge and surrounding induration. The digital rectal exam showed the presence of an indurated tract extending from the external opening toward the anal canal, consistent with a fistulous tract. There was no rectal tenderness, masses, or other abnormalities detected on examination.

Diagnostic Investigations

To in addition delineate the fistulous tract and confirm the prognosis, a magnetic resonance imaging (MRI) scan of the pelvis was done. The MRI findings corroborated the medical prognosis, revealing a low trans-sphincteric fistula characterized by an inter-sphincteric tract that pierced the external anal sphincter and opened externally at the perianal skin. No secondary tracts, abscesses, or other complicating factors had been identified.

Diagnosis and Treatment Decision

Based at the medical presentation and diagnostic findings, the patient diagnosed with a low trans-sphincteric fistula-in-Ano. *Ksharasutra* procedure was proposed as treatment modality as it is devoid of potential complications, and recurrence. This decision was encouraged by using the patient's inclination towards minimally invasive procedures, as well as the promising effects related to *Ksharasutra* therapy documented in Ayurveda literature.

Informed Consent

The patient was provided with specific information concerning the *Ksharasutra* method, including its mechanism of action, procedural information, anticipated outcomes, probable risks, and the importance of follow-up visits. The patient's informed consent was taken, ensuring a thorough understanding of the treatment plan and agreement to proceed with *Ksharasutra* therapy.

METHODOLOGY

Pre-operative Preparation

Prior to the procedure, the patient was recommended to maintain strict perianal hygiene and become advised to take sitz baths two times daily. Bowel preparation was achieved by using 5gm *Panchasakar Churna* with lukewarm administered the night prior to the procedure. Proctoglycerin enema given at early morning on day of operation. After proper bowel clearing, patient was given injection T.T. 0.5ml IM and xylocaine 2% subcutaneously for sensitivity check.

Procedure

Under local anesthesia with 2% xylocaine, patient was kept in lithotomy position and a malleable probe gently introduced through the external opening and navigated alongside the fistulous tract to the internal opening. Once the tract turned into effectively probed, a *Ksharasutra* thread, prepared as in line with classical Ayurvedic texts, was threaded via the tract and ligated at the external opening and T bandaging done^[9].

The *Ksharasutra* used on this system turned into prepared with the aid of repeatedly coating a thread with a combination of latex from *Euphorbia neriifolia*, turmeric powder, and the alkaline ash of *Achyranthes aspera*, and permitting every coat to dry earlier than applying the subsequent^[10].

Post-Procedure Care

Post-procedure, the patient was advised to continue sitz baths and maintain high levels of perianal hygiene. A high-fibre diet and adequate fluid intake were recommended to prevent constipation and facilitate smooth bowel movements. Patient was admitted in the Hospital IPD until next *Ksharasutra* was changed.

Medications

Triphala Guggulu three times a day

Panchasakar Churna 5grams at night with lukewarm water

Sitz bath with *Triphala Kwatha*

Follow-Up and Observations

Patient was discharged from the IPD after changing first *Ksharasutra* on the 7th day after surgery and asked for follow up visits for every 7th day until reducing of the tract to change the *Ksharasutra*. Sitz bath with *Triphala Kwatha* and local application of *Jatyadi Taila* is advised during this period. Patient became allowed to do his job after discharged from hospital. Significant improvements were noted within the first four weeks, including a marked reduction in pain and discharge. After six follow ups the tract was absolutely cut and healing progressed tremendously. By the eighth week, entire restoration of the fistulous tract was determined, without a symptom of contamination, irritation, or recurrence. The patient mentioned significant relief from and symptoms and became capable of resume normal activities without any discomfort.

DISCUSSION

The management of Fistula-in-Ano with *Ksharasutra* procedure, as presented in this case study, highlights the ability of this Ayurvedic para-surgical approach as an alternative to conventional surgical methods. This discussion will elaborate on the efficacy, safety, and benefits of *Ksharasutra* treatment, drawing comparisons with conventional surgical interventions and highlighting the wider implications for scientific practice.

Efficacy of *Ksharasutra* Therapy

Ksharasutra therapy's efficacy in treating Fistula-in-Ano is well-documented in classical Ayurvedic literature and many other texts. The method entails the usage of a medicated thread that combines mechanical and chemical properties to facilitate the gradual cutting of the fistulous tract while promoting healing and preventing infection. The latex from *Euphorbia neriifolia*, turmeric powder, and the alkaline ash of *Achyranthes aspera* contributes to the thread's antimicrobial and anti-inflammatory properties^[11]. In this case, the patient's fistulous tract absolutely healed within 8 weeks, with enormous symptom remedy located as early because the fourth week. This aligns with preceding studies that have mentioned high success prices and minimal recurrence with *Ksharasutra* therapy^[12].

Safety and Complications

One of the advantages of *Ksharasutra* therapy is its safety profile. Traditional surgical interventions for Fistula-in-Ano, inclusive of fistulotomy and fistulectomy, are related to dangers of postoperative complications, along with incontinence, infection, and prolonged healing times^[13]. In contraction, *Ksharasutra* therapy is minimally invasive and performed under local anesthesia, lowering

the hazard of anesthesia-related complications. Additionally, the gradual cutting and recovery process minimizes trauma to surrounding tissues, further reducing the hazard of complications. In this case, the patient experienced no primary complications and suggested minimal pain, managed effectively.

Comparison with Conventional Surgery

Conventional surgical treatments for Fistula-in-Ano often involve extensive morbidity and a tremendously high recurrence rate. Studies have proven that even as surgical interventions may be powerful, they regularly bring about recurrence rates of up to 21%^[14]. Moreover, the risk of postoperative incontinence, in particularly with complicated fistulas regarding the sphincter muscle, poses a significant problem. *Ksharasutra* remedy, with its targeted and controlled technique, has exhibited decrease recurrence rates and a reduced risk incontinence^[15]. This case supports these findings, as the patient confirmed no signs of recurrence or incontinence all through the follow-up time.

Broader Implications for Clinical Practice

The positive outcome observed in this case indicates that *Ksharasutra* therapy must be considered a first-line remedy choice for patients with Fistula-in-Ano, specifically people with clear-cut fistulas or those seeking non-surgical interventions. The approach's cost-effectiveness, minimum invasiveness, and favorable safety profile make it significant.

Limitations and Future Research

While this case study highlights the potential benefits of *Ksharasutra* therapy, it is important to mention its limitations. These findings are based on a single patient, and large, randomized controlled trials are needed to generalize the outcomes. Future research should focus on standardizing the *Ksharasutra* preparation and application techniques.

CONCLUSION

In conclusion, *Ksharasutra* therapy emerges as a promising and effective alternative to conventional surgical tactics for the management of Fistula-in-Ano. The outcome in this case supports the wider adoption of this Ayurvedic approach in practice, presenting a patient-friendly, secure, and efficacious treatment alternative. Continued research and large scientific trials are important to set up standardized remedy protocols and verify the long-term benefits of *Ksharasutra* procedure. By this Ayurvedic procedure, healthcare professionals can offer holistic, patient-centered care for anorectal problems, ensuring optimal outcomes and improved quality of life for patients.

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