

MANAGEMENT OF ANTERIOR TRANS-SPHINCTERIC FISTULA-IN-ANO IN A FEMALE BY MIKST (MINIMALLY INVASIVE KSHARA SUTRA TECHNIQUE): A CASE REPORT

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Article Received on 05 May 2026,
Article Revised on 25 May 2026,
Article Published on 01 June 2026

<https://doi.org/10.5281/zenodo.20443417>

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How to cite this Article: Dr. Sapna Yadav^{*1}, Prof. (Dr.) Suman Sharma², Prof. (Dr.) P. Hemantha Kumar³, Dr. Vaisakh R.⁴, Dr. Mahendra⁵ (2026). Management of Anterior Trans-Sphincteric Fistula-in-Ano in a Female by Mikst (Minimally Invasive Kshara Sutra Technique): A CASE REPORT. World Journal of Pharmaceutical Research, 15(11), 1198-1207. This work is licensed under Creative Commons Attribution 4.0 International license.

ABSTRACT

Anterior fistula-in-ano is an uncommon and challenging condition in females with limited literature describing effective management strategies. Surgical interventions are often complicated because of the anatomical intricacies of the pelvic region in females. This case explores the use of the Minimal Invasive *Ksharasutra* Technique, A modification of traditional ksharasutra therapy, in managing anterior fistula-in-ano among female patients. This Report presents a case of 24 y old female patient diagnosed as a case of Anterior fistula- in- ano confirmed by the clinical examination. Patient Reported a history of pus and fecal matter discharge from right side of vagina. Patient undergone MIKST under spinal anaesthesia completely healing occurred within 13 weeks with preservation of anal continence and no recurrence during follow-up were noted. This case highlights MIKST can provide a safe, effective and recurrence free treatment option for fistula- in-ano.

KEYWORDS: Bhagandara, Case Report, Anterior Fistula in ano.

INTRODUCTION

Bhagandara, correlated with fistula -in-ano in contemporary medicine, is described in ayurvedic literature as a disease involving the perianal region, including the anal and genital areas, along with adjacent structure such as urinary bladder. It is characterized by an unhealthy granulation tract formation between the anorectal and perianal skin.^[1] In its initial stage, Inflammatory swelling presents without suppuration, Known as *pidaka* (boil). The condition is termed as *bhagandara* with the progression of suppuration and formation of fistulous tract.^[2] Owing to its chronic nature, tendency for recurrence, and therapeutic challenges *bhagandara* is classified as one of *Ashta Mahagada*, a group of eight severe and difficult to treat disorder described in *Ayurveda*.^[3]

In the Garg classification, fistula-in-ano is categorized based on the tract's relationship to the anal sphincter and the surrounding anatomical planes. It identifies low inter-sphincteric, low trans-sphincteric, high trans-sphincteric, supra-sphincteric, extra-sphincteric and supralevator fistulas.^[4] Among these anterior trans-sphincteric fistula-in-ano in females represents a distinct clinical entity due to its anatomical location and increased risk of sphincter damage. These fistulas are considered functionally complex, due to relatively shorter anterior sphincter length, thinner perineal body, and the close anatomical relationship with the vagina, all of which predispose to postoperative complications such as fecal incontinence and vaginal involvement.

Conventional surgical approaches including fistulectomy, fistulotomy, use of fibrin glue, advancement flap procedures, ligation of the intersphincteric fistulous tract (LIFT) are common in modern practice.^[5] Despite their utility, these interventions are frequently associated with drawbacks such as delayed wound healing, increased recurrence rates, and the possibility of sphincter damage that may lead to incontinence. Within the *Ayurvedic* system, Minimal invasive kshara sutra technique is a sphincter -preserving, minimal invasive procedure with a shorter treatment duration when compared to other surgical approaches. The technique involves identification of fistulous tract and probing from external opening to internal opening with interception of fistulous tract in the inter-sphincteric plane by application of kshara sutra to the internal opening and core fistulectomy or application of plain thread in the distal arm of the tract. This method particularly suitable for trans-sphincteric anal fistula, linear mature tracts extending anywhere from the anal verge.^[6]

Here we are presenting a case of Anterior Trans-sphincteric fistula in ano in a female.

This case has been reported in line with the CARE guidelines.^[7]

Patient Information

A 24 yr female, Teacher by occupation, presented at the shalya tantra opd with complaints of pus and fecal matter discharge from a opening at right lower region of vagina since 1 month. She reported ongoing discomfort while walking and sitting .The patient had no past medical and surgical history. The patient was no any significant family history of fistula in ano .There was no any history of addiction.

Clinical Finding

ON local examinations perianal skin was normal, No any sign of discolourations, one external opening at right lower region of labia majora approx 10 cm away from anal verge. On palpation temperature was normal .on per vaginal examination there was no significant finding and there was no evidence of any vaginal communication with anal canal. While Digital Rectal Examination sphincter Tone was normal, one internal opening felt at 12 o clock position Below Dentate line suggestive of fistula in ano.

Therapeutic Intervention

After obtaining the written informed consent from the patient and her attendant. The patient was planned for surgery. The procedure was performed under spinal anaesthesia with the patient placed in the lithotomy position. The fistulous tract was identified by using hydrogen peroxide and betadine solution. A probe was gently inserted from the external opening at 11 o clock position approximately 10 cm from anal verge and taken out from existing internal opening at 12 o clock position below dentate line .Interception of the fistulous tract was done by creating a window at the 11 o clock position about 2 cm from the anal verge. primary threading was done using plain linen thread no 20 from created window to internal opening at 12 o clock position and The distal tract was cored out. Secondary threading was applied from external opening to created window by using plain linen thread no 20. Complete homeostasis was achieved and antiseptic dressing was done. Oral antibiotics and analgesics were prescribed for initial five days. Post operatively patient was advised for daily dressing with *Jatyadi Taila (Jasminum officinale Linn.)* and weekly changing of *Ksharasutra (Ayurvedic seton)*. Oral medications *Triphala Guggulu* 1 gram twice daily after food with lukewarm water. *Haritaki Churna* 3 gram at bedtime with lukewarm water and isabgol husk 3 table spoon at bedtime with lukewarm water were continued till complete wound healing.



Figure 1: Pre -Operative image.



Figure 2: Intra-Operative image.



Figure 3: Post Operative 3rd Day.

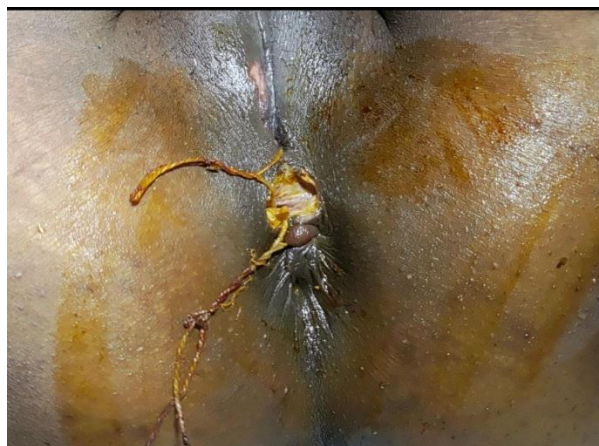


Figure 4: Completely Healed Wound.

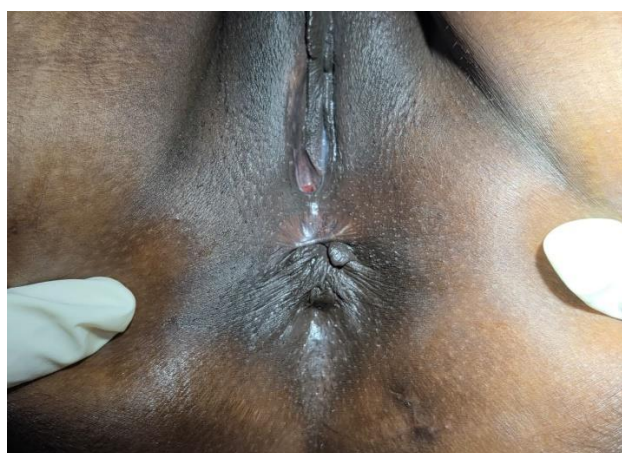


Table no. 1: Timeline of the case.

Date	Event /Intervention	Outcome/Remark
14 th August, 2025	24 year old female patient presented with complaints of pus and fecal Discharge from right lower region of vagina since 1 month. Patient was admitted in <i>Shalya Tantra</i> indoor patient department(IPD) and routine pre-operative investigations were performed	Diagnosed as Fistula-in-Ano (<i>Bhagandara</i>) after clinical examination.
16 th August, 2025	All investigations and vitals are within normal limits except CBC. The patient was advised for Blood transfusion.	RBC- 3.26×10^6 /ul HB-7.3 g/dl Haematocrit-25.9% MCV-79.4fl MCH-22.4pg MCHC-28.2g/dl RDW-CV-18.2% RDW-SD-52.1%
17 th August, 2025	2 Unit of packed red blood	Blood transfusion

	cells was transfused for the management of severe microcytic hypochromic anaemia.	Completed without any complications. Vitals were within normal limits.
19 th August, 2025	CBC was advised to the patient.	RBC- $4.80 \times 10^6/\text{ul}$ HB-12.0 g/dl Haematocrit-39.0% MCV-83fl MCH-27.4pg MCHC-16.6g/dl RDW-CV-17.5% RDW-SD-50.0%
19 th August, 2025	Interception of fistulous tract was done at 11 o clock position approximately 3 cm from anal verge with primary threading at proximal tract and distal tract was core out and secondary threading was applied.	Procedure well tolerated Vitals were within normal limits.
20 th August, 2025	Post-operative 1 st day (1 st POD)	Oral Antibiotic and Analgesic Tablet Oflox OZ twice daily (BD), Tablet Zerodol SP (Acelofenac 100mg, Paracetamol 325mg and Serratopeptidase 15mg)1 BD and Tablet Rabekind DSR 1 OD (Rabeprazole 20mg and Domperidone 30mg) were started for initial five days. Ayurvedic medicines <i>Triphala Guggulu</i> 1gram BD Before food with lukewarm water, <i>Haritaki Churna</i> Three gram at bedtime with lukewarm water and Isabgol husk 3 tsp at bedtime with luke warm water till complete wound healing. Local measures Regular aseptic dressing with <i>Jatyadi oil (Jasminum officinale Linn.)</i> was started.
21 August, 2025	Primary Plain thread was changed into <i>Ksharasutra</i> (medicated alakali thread) Patient was discharged from	Patient was well oriented to time place and person.

	IPD	
28 th August, 2025	Primary <i>Ksharasutra</i> (medicated alakali thread) was changed. Mild pain and pus discharge was present at operated site. Secondary threading was removed.	Antibiotics and analgesics were stopped. <i>Ayurvedic</i> medicines were continued same as above.
12 th September, 2025	<i>Ksharasutra</i> (medicated alakali thread) was changed. Mild pain was there and no pus discharge was seen. Healthy granulation was started.	Same as above
27 th September, 2025	<i>Ksharasutra</i> (medicated alakali thread) was changed Wound healthy, no pain was there.	Same as above
12 th October, 2025	<i>Ksharasutra</i> (medicated alakali thread) was changed Wound healthy, no pain or pus discharge was there. wound started to contract.	Same as above
27 th October, 2025	<i>Ksharasutra</i> (medicated alakali thread) was changed Wound healthy, no pain or pus discharge was there.	Same as above
11 th November, 2025	<i>Ksharasutra</i> (Medicated alakali thread) was cut through under local anaesthesia.	Same as above
26 th November, 2025	Complete healing of wound was achieved.	<i>Ayurvedic</i> medicines were stopped. Patient was advised for follow up at every 15 days for five months duration.

Follow up & Outcomes

Patient was advised for Daily dressing with *Jatyadi Taila* (*Jasminum officinale* Linn.) from 1st post operative day. Patient was discharged from the hospital on 3rd post operative day. Pus discharge from the wound was noted during the first week and gradually reduced over three weeks. Pain decreased within three weeks and was completely relieved by the end of four weeks. After four weeks, healthy granulation tissue was observed at the operative site. Regular wound dressing and weekly *Ksharasutra*(*Ayurvedic* seton) changes were continued for a total duration of 12 weeks. Cut through was done on 12th post operative week and complete healing was achieved in 13 weeks. Then after patient was advised for regular follow

up at every 15 days for five months. No recurrence or complications were observed during till the follow-up period, and the patient's quality of life showed marked improvement.

DISCUSSION

Fistula-in-ano remains a challenging condition because of its recurrent nature and constant concern of preserving anal sphincter function. The complexity of the disease due to the risk of sphincter damage becomes more pronounced. The traditional surgical method for management of fistula-in-ano includes fistulotomy with or without marsupialization, fistulectomy, seton placing, ligation of intersphincteric fistula tract, fibrin glues, advancement flaps, laser ablation and expanded adipose -derived stem cells are also being tested with retrospective analysis. *Ayurveda* also practiced *kshara* sutra therapy but it takes longer recovery, the cost of treatment also high, this leading to physical and mental distress for the patient.

Ksharasutra therapy, a minimally invasive parasurgical technique described in *Ayurveda*, is considered an effective option for the treatment of complex fistula-in-ano. The procedure employs a specially prepared medicated thread coated with herbal alkaline substances that possess antimicrobial, anti-inflammatory, cauterizing, and debriding properties. Through its gradual chemical and mechanical action, the medicated thread slowly cuts through the fistulous tract while ensuring continuous drainage and removal of unhealthy tissue. At the same time, it promotes healthy granulation tissue formation, thereby supporting wound healing.^[8] An important advantage of this technique is preservation of sphincter function with a comparatively lower risk of recurrence.

This case presents the challenges of managing a anterior trans-sphincter fistula in ano, particularly in female. In the present case, the complexity was further increased because the anterior sphincter is shorter and relatively weaker due to its close relation with the vagina and perineal body. Accurate identification of the primary focus and maintenance of effective drainage were therefore prioritized before initiating definitive treatment.

Application of Jatyadi Taila (*Jasminum officinale* Linn.) in wound dressing demonstrated beneficial effects in local wound management by facilitating absorption of wound discharge and aiding removal of devitalized tissue due to its Lekhana property. The formulation also promoted the development of healthy granulation tissue and accelerated the wound healing process. Furthermore, the Tikta and Kashaya Rasa attributes helped maintain a clean wound

bed and decreased the likelihood of secondary infection. Along with local therapy, administration of Triphala Guggulu as an oral medication provided systemic therapeutic support through its anti-inflammatory, analgesic, and antimicrobial actions. The combined therapeutic approach contributed to improved wound healing and overall recovery.^[9]

CONCLUSION

Complex trans-sphincteric fistula-in-ano in female poses significant management challenges due to its deep extension and potential sphincter involvement. This case illustrates that *Ksharsutra* (Ayurvedic seton) therapy, when combined with accurate identification of the primary focus and adequate drainage, can achieve effective and sustained healing. Complete recovery was achieved within thirteen weeks without recurrence or sphincter-related complications. This approach appears to be a safe, effective, and sphincter-preserving option for managing complex fistula-in-ano. Larger studies with long-term follow-up are required to confirm these findings.

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