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Case Study

A MINIMALLY INVASIVE AYURVEDIC APPROACH TO COMPLEX FISTULA-IN- ANO USING IFTAK TECHNIQUE

S Gayathri[1]*, K Gangadharan[2]

*[1]PG Scholar, [2]Professor (Retd), Department of Shalya Tantra, Government Ayurveda College, Kannur, Kerala, India.

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ABSTRACT

Complex horseshoe fistula-in-ano is a challenging condition, often associated with recurrent infection, pain, sphincter involvement, and prolonged healing. Conventional surgical management carries significant risks such as incontinence, delayed recovery, and psychological distress. In this case report a 48-years-old male was presented with an external opening in left perianal region with pus discharge and severe pain, along with a right-sided abscess. MRI confirmed a complex horseshoe fistula. The patient was managed using the IFTAK (Interception of Fistulous Tract with application of *Kṣhārasūtra* technique), which allowed precise localization and eradication of the infected crypt while preserving sphincter integrity. The intervention resulted in minimal scarring, early symptomatic relief, rapid return to daily activities, and a reduced risk of recurrence. This case demonstrates that the IFTAK technique is an effective, minimally invasive, and patient-friendly alternative for managing complex fistula-in-Ano, offering favourable clinical outcomes and improved quality of life.

INTRODUCTION

A fistula-in-ano is a persistent abnormal tract, lined by granulation tissue, that connects the anorectal lumen (originating at the internal opening) to the perineum or nearby structures.[1] Most fistulae develop as a sequela to anorectal abscesses and from there the infection can spread in multiple directions, either emerging externally or forming blind internal extensions.[2] In Ayurvedic literature, Acharya Sushruta has described *Bhagandhara* (fistula-in-ano) as one of the *Ashtamahagadas* (eight major diseases).[3] In contemporary science *Sambukavarta Bhagandara* can be correlated with horseshoe-shaped fistula-in-ano. *Sambukavarta Bhagandara* is a *Tridoshaja (involving three doshas) Bhagandara* and Sushruta mentioned it as incurable disease.[4] Clinically, perianal fistulas are often classified as simple or complex. A complex fistula is high (high intersphincteric or high transsphincteric or extra-sphincteric or suprasphincteric origin of the fistula tract), may have multiple external openings, may be associated with the presence of pain or fluctuation to suggest a perianal abscess, may be associated with the presence of rectovaginal fistula, may be associated with the presence of an anorectal stricture, and may be associated with the presence of active rectal disease at endoscopy.[5] A horseshoe fistula represents a particularly challenging variant, where infection spreads circumferentially in the deep postanal space, creating tracts that open on both sides of the anal canal.[6] Despite numerous modern surgical options for treating fistula-in-ano- such as fistulotomy, fistulectomy, fibrin glue, anal fistula plugs, advancement flaps, LIFT, and VAAFT- management remains challenging.[7] This is due to high recurrence rates, risk of sphincter damage and incontinence, post-surgical deformities, and the associated physiological and psychological distress, including depression.[8] *Ksharasutra* therapy is a traditional Ayurvedic technique used effectively for fistula management, but is often limited by prolonged healing time, recurrence and repeated hospital visits.[9] The Interception of Fistulous Tract with Application of *Ksharasutra* (IFTAK)- also known as the BHU technique- has been developed as a minimally invasive modification. In IFTAK, the proximal fistulous tract is intercepted at the

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level of the external sphincter, and a medicated seton is passed from the interception site to the internal opening. This approach selectively eradicates the infected crypt while minimizing sphincter injury.[10] By effectively disconnecting the distal tract from its source of infection, it eradicates its further branches and promotes faster healing and is associated with low recurrence rates (3–7%).[11] This case report presents the successful use of the IFTAK technique in the management of a horseshoe fistula-in-ano, highlighting its clinical utility in a complex anatomical variant.

Case History

A 48-years-old moderately built male presented with recurrent perianal abscesses associated with severe pain, pus discharge, and difficulty in sitting and walking over the past eight months. Patient also reported a history of chronic constipation with frequent hard stools. Eight months prior, he developed the first episode of left perianal abscess, which was managed with allopathic treatment, providing only partial relief. Four months later, he experienced a recurrence at the same site and underwent incision and drainage, achieving temporary symptomatic improvement. Two weeks before presentation, another painful swelling appeared at the left perianal region, which ruptured spontaneously with pus discharge. At the same time, he developed pain, burning sensation, and swelling in the right perianal region, along with occasional itching. On modern surgical consultation, fistulectomy with temporary colostomy was advised; however, the patient sought alternative management due to concerns about sphincter preservation and recurrence.

Clinical findings

Local Examination

Inspection

- One external opening at the 3 o'clock position.
- Mild swelling at the 9 o'clock position. (Fig.1.a)

Palpation

- Purulent discharge from the left external opening.
- Induration noted in the right perianal region (9–10 o'clock).
- Marked tenderness (+++).

Digital Rectal Examination

- Internal opening palpable at 5 o'clock position.
- Severe tenderness (Grade 4).
- Induration in both right and left perianal regions.

Diagnostic assessment

MRI of the perineum revealed a complex transsphincteric horseshoe fistula with bilateral perianal involvement. Track A originated in the left natal cleft, coursed superiorly through the left ischio-anal fossa, and showed a medial horseshoe ramification from 1 to 11 o'clock, with an anterosuperior blind-ending branch at 2 o'clock abutting the prostate and left levator ani. Track B arose from the right natal cleft, extended superiorly, and connected medially with the primary horseshoe tract, with a superior blind-ending branch at 8 o'clock abutting the right levator ani. (Fig.1.b)

Therapeutic intervention

The treatment began with identification of the infected anal crypt and internal opening by digital rectal examination, followed by local anaesthesia infiltration and probing of the fistulous tract. A 2–2.5cm posterior midline vertical incision was made below the anal verge, with careful dissection and limited sphincter splitting to intercept the tract. *Kṣhārasūtra* was applied from incised opening to the internal opening after probing. *Ksharasutra* thread is changed once every 5-7 days (Table 1). On 5th day (28/01/25), incision and drainage of the right perianal abscess were performed, followed by routine cleaning and dressing. On 10/02/25, the intercepted site was widened under local anaesthesia for adequate drainage. The *Kṣhārasūtra* spontaneously fell off on 17/02/25, after which Betadine *Varthi* (medicine wick*)* and subsequently *Jathyādi varthi* were placed to support healing (Figure.3. a, b, c, d, e, f, g). For first week antibiotics and analgesics were given to prevent infection later changed into certain ayurvedic medicines as given in (Table 2).

Table 1: Days of *Ksharasutra* Thread Change

S.No	Date	Thread Change
1	23/1/25	Primary *Ksharasutra* ligation done
2	28/1/25	*Ksharasutra* thread change
3	4/2/25	*Ksharasutra* thread change
4	10/2/25	*Ksharasutra* thread change
5	15/2/25	*Ksharasutra* thread change
6	17/2/25	Thread fell off

Table 2: Internal Medicines

1	Antibiotics and analgesics	For 7 days
2	*Guggulutikthaka Kashaya* 90ml BD before food	From 6th day onwards
3	*Abhayarishtam* 30ml BD A/F	From 6th day onwards
4	Tab. *Dhanwantharam* 1 BD A/F	From 6th day onwards
5	*Guggulupanchapala churna* 1tsp with honey BD	From 6th day onwards
6	*Manibadra gulam* 1tsp HS	From 6th day onwards

RESULTS

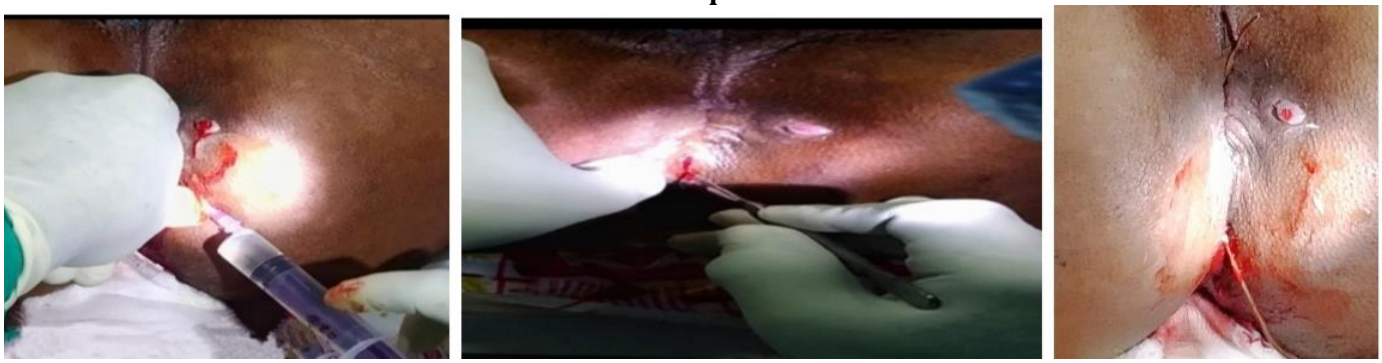
On the first day of presentation, the patient experienced severe pain and burning sensation, assessed using the Visual Analogue Scale (VAS) at a score of 9-10. Pus discharge was noted, with 8-10 drops per day, and clinical examination revealed marked tenderness (Grade 4) and severe induration. After 25 days of treatment, symptomatology was markedly improved. The pain and burning sensation decreased to VAS levels of 4-5. Pus discharge was reduced to 2-3 drops per day. Tenderness was assessed as Grade 2, and induration was noted as reduced. The therapeutic intervention resulted in the thread falling off, with almost all symptoms showing reduction within 25 days. In the final follow-up, after two and a half months from the start of treatment, the patient demonstrated complete clinical cure. Pain was relieved (VAS: 1), pus discharge was absent, tenderness was no longer present, and induration had resolved. (Table 3)

Table 3: Assessment of Signs and Symptoms

Parameter	**1st day**	**17/2/25**	**30/3/25**
Pain and burning sensation	Severe (VAS:9-10)	Reduced (VAS:4-5)	Relieved (VAS:1)
Pus discharge	8-10 drops	2-3 drops	Absent
Tenderness	Grade 4	Grade 2	Absent
Induration	Severe	Reduced	Absent

A **b**

Fig.1. a. before treatment, b. diagrammatic illustration of fistula track based on clinical examination and MRI report



a **b** **c**

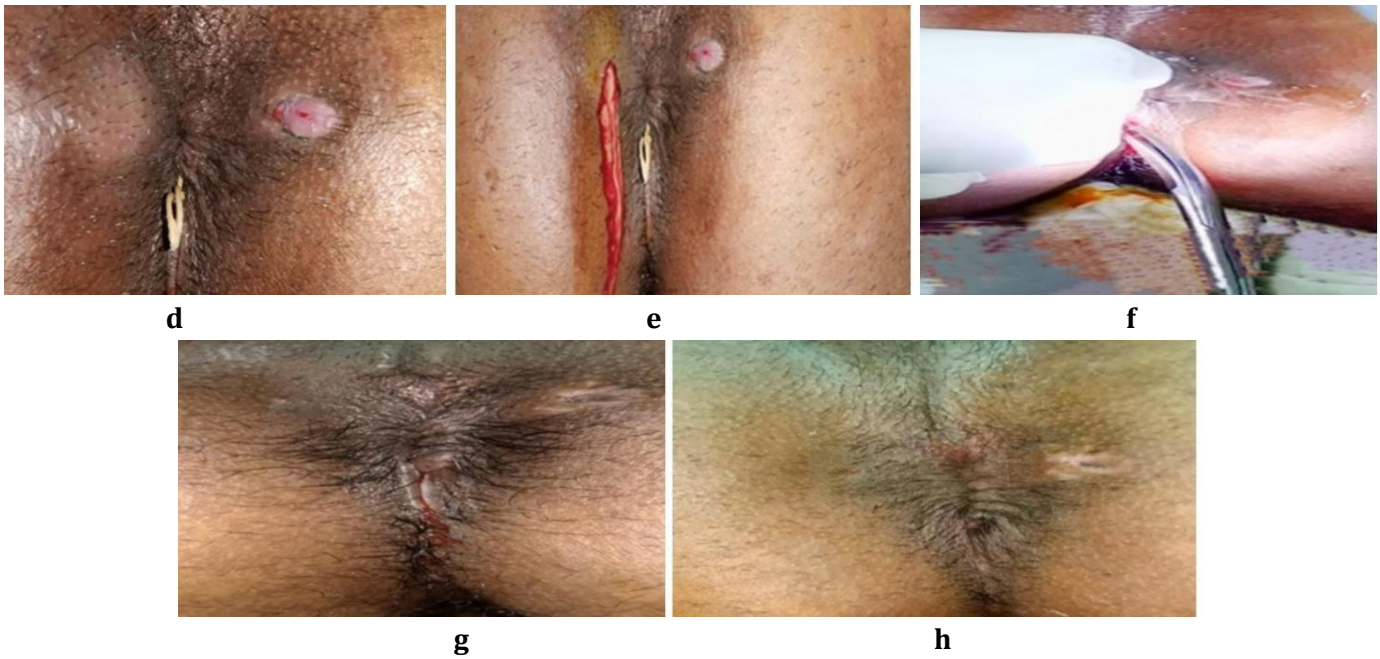


Fig.2: IFTAK Procedure. a. Local anaesthesia infiltration. b. posterior vertical incision 2 cm below anal verge. c. Probing from intercepted site to internal opening. d. *Ksharasutra* ligation done. e. incision and drainage of right perianal abscess. f. widening of intercepted opening on 10/2/25. g. *Ksharasutra* fell off. h. Healed wound after treatment.

DISCUSSION

The present case involved a patient with a complex horseshoe fistula, presenting with an external opening, continuous purulent discharge, and severe pain particularly in the left perianal region, accompanied by an abscess on the right side. The chronic nature of the condition had a profound impact not only on physical health but also on the patient's psychological well-being. Limited mobility, pain during routine activities such as walking and sitting, and the fear of undergoing extensive surgical procedures- such as colostomy or fistulectomy- contributed to significant emotional distress.

Clinical findings supported by MRI confirmed the diagnosis of a complex horseshoe fistula. In managing such cases, the primary objective is to eliminate the fistula at its source, prevent recurrence, and minimize complications while ensuring a shorter duration of treatment. With this aim, the infected crypt was accurately identified and managed by intercepting the fistulous tract and applying *Kṣhārasūtra.*

Conventional modern surgical approaches to complex fistulae are often challenging, carrying notable risks such as postoperative pain, delayed wound healing, incontinence, and, in some cases, the need for colostomy- making treatment more invasive and expensive. Although *Kṣhārasūtra* therapy is widely practiced in Ayurveda for fistula-in-Ano, its use in complex fistula can be prolonged, painful, and may leave significant scarring. In contrast, the IFTAK (Interception of Fistulous Tract with *Kṣhārasūtra*) technique offers a more refined and targeted approach. This method allows precise interception of the tract while minimizing tissue damage and preserving sphincter integrity. In the present case, the use of IFTAK resulted in several favourable outcomes, including reduced scarring, minimal sphincter injury, shorter treatment duration, and a lower likelihood of recurrence.

The patient experienced marked improvement soon after treatment initiation. Pain and discomfort while walking and sitting resolved, and he was able to resume daily activities within a short period. His overall physical and mental well-being improved significantly, and he expressed satisfaction and relief from the distress caused by the longstanding condition.

This case highlights the effectiveness of the IFTAK technique as a minimally invasive and patient-friendly approach in the management of complex fistula-in-ano. It underscores the importance of adopting sphincter-preserving, targeted interventions that not only ensure clinical success but also enhance patient comfort and quality of life.

CONCLUSION

This case illustrates the successful application of the IFTAK technique in the management of a complex horseshoe fistula, emphasizing its value as a minimally invasive, sphincter-preserving approach. By precisely targeting and eliminating the infected crypt, the method effectively reduced recurrence risks while minimizing tissue trauma and scarring. The patient experienced rapid symptomatic relief, early return to normal activities, and substantial improvement in both physical and psychological well-being.

The positive outcome reinforces the potential of integrating modified *Kṣārasūtra* techniques with focused interventions like IFTAK in addressing challenging fistula presentations. Such approaches offer safer, less painful, and more cost-effective alternatives to extensive surgical procedures, contributing to improved clinical outcomes and enhanced patient satisfaction.

Informed Consent

Written informed consent was obtained from the patient for publication of this case report and the accompanying clinical photographs. Confidentiality of the patient was maintained.

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***Address for correspondence**
Dr. S Gayathri
PG Scholar
Department of Shalya Tantra,
Government Ayurveda College,
Kannur, Kerala, India
Email: gagist1999@gmail.com