

MANAGEMENT OF COMPLEX TRANS SPHINCTERIC HORSESHOE FISTULA IN ANO  
THROUGH THE KSHARSUTRA LIGATION; A CASE STUDY

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## ABSTRACT

Horseshoe fistula-in-ano presents a formidable challenge for proctologists due to the infection of the posterior anal space. This condition often leads to a high probability of recurrence and the potential for incontinence following surgical intervention. However, Ksharasutra has emerged as a promising solution in such cases. Here is a case of a 42 years old male patient diagnosed as a Horseshoe fistula in ano and treated with Apamarga Ksharasutra. This technique not only facilitates the drainage of the fistulous tract but also plays a crucial role in preserving the integrity of the anal sphincter. By simultaneously cutting and promoting fibrosis, Ksharasutra ensures the maintenance of continence while effectively addressing the underlying sepsis. The comprehensive approach of Ksharasutra significantly reduces the likelihood of disease recurrence, offering patients a more favorable postoperative outcome.

**KEYWORDS:** Fistula in ano, Horseshoe fistula in ano, Apamarga Ksharasutra.

## INTRODUCTION

Horseshoe fistula in ano is a complex cryptoglandular origin anal fistula, more common in middle aged male, mostly transsphincteric with posterior internal opening<sup>1</sup>. The incidence of a fistula-in-ano developing from an anal abscess range from 26% to 38%. One of the studies showed the prevalence rate of fistula-in-ano as 8.6 cases per 100,000 population. In men and women, the prevalence rate was 12.3 and 5.6 cases per 100,000 population, respectively. The incidence of fistula-in-ano in males was 1.8 times more than in females. The mean patient age was 38.3 years. Surgical treatment for anal fistula should aim to eradicate sepsis and promote healing of the tract, while preserving the sphincters and the mechanism of continence and prevent recurrence. Horseshoe fistula with significant proportion of anal sphincter involvement, great concern remains about damaging the sphincter and subsequent poor functional outcome, which is quite inevitable following conventional surgical treatment. In spite of several new procedures, such as anal fistula plug, ligation of intersphincteric fistula tract (LIFT), video assisted anal fistula treatment (VAAFT) there is no satisfactory treatment for complex fistula- in-ano till date.

Ayurvedic texts, there is detailed information about "Bhagandara." The term "Bhaga" in its literary sense refers to the structures around the Guda (anus),

encompassing the Yoni and Basti, while "Darana" signifies a tear on the surface leading to pain. Bhagandara, commonly known as fistula-in-ano, is identified as one of the most prevalent ano-rectal Diseases in Ayurveda. Sushruta has comprehensively elucidated various aspects of bhagandara, including its Nidana (Aetiology), Poorvarupa (Prodromal features), Samprapti (Pathogenesis), Bheda (Types), Lakhshana (Clinical features), Sadhyaasadyata (Prognosis), Upadrava (Complications), Pathya-apathya (Salutary and unsalutary). and Chikitsa (Treatment) in his treatise. Bhagandara is classified based on Dosha involvement into five types and Shataponaka one among them and is characterized by multiple openings resembling a hundred, with openings Pidaka (boil) presenting as fistulas and rectal sinuses that have multiple opening.<sup>[1]</sup>

Shataponaka Bhagandara Nidana are indulgence in unsalutary diets and habits, Due to which Vata dosha gets Prakupita, Sannivrutta (condensed) and gets Sthribhutha (localized) Around Guda in one or two Angulas, involves the Mamsa, Shonitha gives rise to specific type of Aruna Varna (Black color) Pidaka and Toda (pain like pin and needles prick). If left untreated, suppuration occurs, leading to an anorectal abscess in close proximity to the Mutrashaya (urinary bladder). The Vrana(wound) is consistently Praklinna(moist). Shataponakavad Anumukhashchidrairaapoorayatai,

describing the condition as being filled with multiple small holes skin to a sieve, from which copious, clear, or foamy discharge continuously flows. The affected area experiences Taadya (whipping), Bhidya (tearing), Chidya (biting), and Soochi (pricking) pain. Additionally, there is Avadeerya (splitting) sensation of the anus. Neglecting this condition may result in the discharge of flatus, urine, faces, and semen from these opening, leading to the Shataponaka Bhagandhar.<sup>[2]</sup>

#### PATIENT INFORMATION CHIEF COMPLAINT

Pus discharge from Perianal region since 6 month.

#### HISTORY OF PRESENT ILLNESS

A 42year old male patient with no history of diabetes & hypertension was apparently healthy 1 year back, then gradually started pain & swelling in the perianal region associated with fever. he was diagnosed with bilateral Ischiorectal abscess, for which he underwent Incision & Drainage. After some days he noticed pus discharge from the operated site.

Intermittent pus discharge increased with a Heavy food intake. Reduced by taking sitz bath. So, for above complaints he approached our hospital for further management.

#### PAST HISTORY

Not a K/C/O HTN, DM, TB.

#### SURGICAL HISTORY

Incision & Drainage for B/L Ischiorectal abscess 1yr back.

#### PERSONAL HISTORY

Patient is a non-vegetarian with moderate appetite, disturbed sleep, and having frequency of micturition 5-6 per day and having history of constipation. No as such habits.

Patient had no other major systemic illness.

#### LOCAL EXAMINATION

##### INSPECTION

- Multiple external opening along 4 'O' clock and 7 'O' clock, approximately 5cm away from the anal verge with pus discharge.
- Previous surgical scar on the B/L Ischiorectal fossa.

##### PALPATION

- Induration around 4 'O' clock position.
- Tenderness present along track.

##### PER RECTAL EXAMINATION

- Sphincter tone – Normal
- Internal opening (Dimpling) felt at 4 'O' clock position

##### INVESTIGATION

Laboratory investigation was as follows, Hemoglobin – 16.2% ESR-10mm/hr, CT-4 min 15 sec BT- 2 min 10 sec

RBS-118mg/dl.

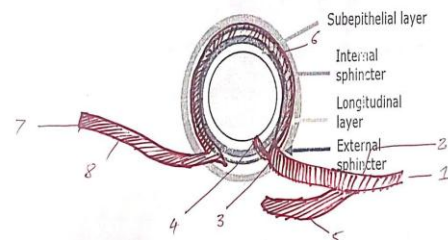
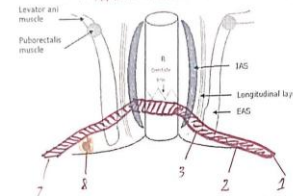
#### TRUS REPORT (23/02/2024)

- External opening 1<sup>st</sup> is seen at 4 o' clock position.
- From here a long wide tract measuring 44mm in length and 2.8mm in width seen go towards anal canal.
- Internal opening is seen in 4' o' clock position at a distance of 9mm from anal verge.
- Another blind tract extends from the above tract to 5 o'clock position
- A Horse shoe tract extends from 4 'o' clock to 7 'o' clock position all around the anal canal in intersphincteric plane.
- Another tract extends from 7 'o' clock position into the skin at 7 'o' clock position measuring 35mm×6mm with external opening at 7 o' clock position.



Name: [REDACTED] Date: 23-02-2024  
 Bill No. X74628 R.Pat.No. 380483 Age: 42 Year(s)  
 Ref. By: [REDACTED] Sex: Male

1 - External opening - 4 o' clock  
 2 - Long wide tract  
 3 - Intersphincteric tract - 4 o' clock  
 4 - Blind tract - 5 o' clock  
 5 - Horse shoe tract - 4, 5, 6, 7, 8, 9 o' clock  
 6 - Blind tract  
 7 - External opening - 7 o' clock  
 8 - Tract



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#### METHODLOGY

- Written informed consent was obtained.
- Using aseptic technique probing followed by primary threading done through 4 'o'clock external opening to 4 'o'clock internal opening. Following xylocaine jelly application, 2% probing was carried out.
- Primary threading replaced by *Apamarga Ksharsutra* after 3days.
- *Ksharsutra* changed once a week for a period of 6

weeks i.e., (42days) till the track is completely healed.

- The Kshar Sutra was replaced every week using the Rail-Road technique until the fistula was fully severed.
- Patient was advised for regular *Panchavalkala Kashaya* sitz bath.
- The 2nd tract, situated at the 7 o'clock position, was scooped, debrided, and dressed with Jatyadi Taila for period of 1 week.
- Unit cutting rate of tract was 0.7 cm per week.
- No sign and symptoms of recurrence were observed.

- After cut through the track patient was followed up for 3 months weekly.

Lakshana	Before Treatment	After Treatment
Daha	+	-
Kandu	++	+
Shula	+++	-
Shrava	+++	-

#### FIGURE



Figure 1: Before treatment



Figure 2: During treatment



Figure 3: After treatment

#### DISCUSSION

- Horseshoe fistula is an extension both side of Ischiorectal fossa with a common infected anal crypt and it is complicated because of the involvement of Sphincters.
- Since each track originates from a common infected anal crypt, tackling this infected source by treating one track with *Ksharasutra* will automatically heal the other track as well.
- This will also compensate the formation of a wide wound and longer hospital stay if treated with modern surgical managements like fistulotomy and wide debridement.

#### FOLLOW UP

Follow-up assessments were conducted at regular intervals of 15 days for a duration of three months, during which no recurrence of the condition was observed.

#### CONCLUSION

Conclusion The technique of Apamarge Kshar Sutra therapy is appropriate for healing of the fistulous tract with minimal complications. As Horse shoe fistula is surgically very difficult to treat & high chance of reoccurrence. Management with *Ksharasutra* as healed the track completely with a no reoccurrence and also minimal scarring. So, use of *Ksharasutra* in the management of Horseshoe fistula is clinically very effective and simple from management. As it is a single

case study so it requires to be studied in more number of cases for concrete conclusion.

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