WEBSITE : www.ijacare.in e-ISSN No.: 2457-0443
INTERNATIONAL JOURNAL OF AYUSH CASE REPORTS (IJA-CARE)

Partial Fistulectomy and *Ksharsutra* in Complex Anterior Horseshoe fistula - A Case Report

Rashmi Yadav, [1] Bharat Bhalara, [2] Tukaram Dudhamal [3]

[1] 2nd Year MS Scholar, [2]PhD Scholar, [3]Professor and I/C Head, Dept. of Shalya Tantra, Institute of Teaching and Research in Ayurveda (INI) Jamnagar, Gujarat, India.

ABSTRACT:

Bhagandar (Fistula-in-Ano) is explained as one among *Ashta Mahagada* in Sushruta Samhita. This disease is recurrent in nature which makes it more difficult for treatment. *Ksharsutra* has been already proved in the management of fistula-in-Ano though Acharya Sushruta explained in the context of *Nadi-Vrana* (sinus). A 21year old female patient came to *Shalya Tantra* OPD with complaints of multiple boils at perianal region associated with pain and blood mixed pus discharge since, two months. On PRE multiple external openings present anteriorly between 2 to 10 0'clock, internal opening palpated at 12 0'clock. TRUS done, suggestive of Horseshoe fistula-in-Ano. Patient was treated with partial-fistulectomy with *Ksharsutra* application under Sadal block. *Ksharsutra* was changed by weekly interval by railroad technic. Whitin 8weeks wound was healed completely and without any recurrence.

KEY WORDS: Fistula-in-Ano, *Ksharasutra, Shataponaka Bhagandar.*

Received: 22.01.2024 Revised: 02.03.2024 Accepted: 15.03.2024 Published: 20.03.2024

Quick Response Code

***Corresponding Author:**
Dr. Rashmi Yadav
2nd Year MS Scholar,
Dept. of Shalya Tantra, Institute of Teaching and Research in Ayurveda (INI) Jamnagar.
E-mail: yadavrashmi15041995@gmail.com

INTRODUCTION:

The origin of the anterior horseshoe abscess is similar to posterior horseshoe abscess. The deep anterior anal space, like the deep postanal space, has a direct connection with the ischiorectal spaces. [1] So, when the anterior inter-sphincteric abscess ruptures through the superficial and deep part of the external anal sphincter into the deep anterior anal space. The pus may extend anteriorly to the perineum to the labia in females and scrotum in males. In neglected cases, multiple external openings may be present in the perineum.[2]

Sushruta classified *Bhagandara* into five subtypes namely- *Shatponaka, Ustragriva,Parisravi, Shambukavarta* and *Unmargi*. According to Acharya Sushruta it can be correlated with *Shatponaka Bhagandara*. Sushruta described *shatponaka bhagandara* as *pakapidika*(ripened blister), *darunaruja* (severe pain), *bhinnaarunaphenavahini*(when the blister

open it presents reddish yellow with froathy discharges), *anekavrana*(many openings) etc. [3]

Sphincter-saving procedures should be undertaken in high-risk patients, such as women with anterior fistula as the perineal body is a weak structure. The length of the external sphincter anteriorly is half compared to males. [4] Beside this the main reasons for the failure of any surgical procedure for fistula-in-Ano are untreated or missed internal opening, missed side tracts, inadequate drainage of inter-sphincteric space, and persistent primary tract. [5] So, to overcome this an integrated method (Partial fistulectomy with *Ksharasutra*)is applied in this case report.

Ksharsutra, a medicated seton mentioned by Acharya Sushruta which in barbour linen thread coated with *Snuhi* (*Euphorbia nerifolia* Linn.) latex, turmeric (*Curcuma longa* Linn.), and *Apamarga Kshar* (alkaline powder made by burning *Achyranthus aspera* Linn.). It is extensively used in Ayurveda to treat Fistula-in-Ano. [6]

CASE REPORT:

A 21year old female patient came to *Shalya Tantra* OPD, with complaints of multiple boils at perianal region with pain and blood mixed pus discharge since, two months. Symptoms get aggravated during prolong sitting and walking and relieved after taking analgesic medications. There was no any medical history was found. There was no any relevant family history.

On PRE multiple external openings present anteriorly between 2 to 10 0'clock, on DRE internal opening felt at 12 0'clock Figure-1. The findings of TRUS suggestive of 15 cm long and 10 mm wide Horseshoe fistula in perianal region with multiple external openings on both side between 2 to 9 0'clock and one internal opening at 12 0'clock Figure-2. So, patient was advised to admit in *Shalya Tantra* IPD for further management.

METHODOLOGY:

Pre-operative: Informed written consent of patientand his relatives were taken prior to procedure with explained prognosis and result. Injection Tetanus Toxoid 0.5 ml intramuscular was given and Inj. Xylocaine intra-dermal sensitivity test was done. Patient was kept NBM (Nill by Mouth) for 6 hours prior to surgery. Part preparation was done and proctoclysis enema was given 2 hours prior to surgery.

Operative: Patient was taken to operation theatre with stable vitals. Spinal anaesthesia was given in sitting position followed by lithotomy position. Painting with 10% betadine solution followed by draping with sterile cut-sheet. Blood loss was minimized by infiltrating the Local aneaesthesia (Inj. Xylocaine with adrenaline) surrounding of external openings. To confirm the internal opening, patency test was done with betadine solution 10% with H2O2 solution from external opening at 1 O'clock which came out from internal opening at 12 O'clock. A long metallic malleable probe with an eye was introduced through the external opening at 1 O'clock and attempted to pass the tip of probe through the internal opening at 12 O'clock. Care was taken not to create false passage. The fistulous tract along with unhealthy tissue surrounding external opening curetted till the fibers of external sphincter are reached. The eye of the probe was threaded with *Ksharasutra* and probe was gently withdrawn, so the entire tract was threaded with medicated *Ksharasutra*. Following which the two ends of the thread were snugly tied using two knots outside the anal canal. Similar procedure done for all secondary extensions Figure-3. Proper

haemostasis was achieved and wound was packed with gauze pieces soaked with betadine solution.

Post-Operative: Patient was advised to take daily sitz bath with *Panchavalkala Kwatha* followed by aseptic dressing with *Panchavalkal Malhara* and Orally 1gm *Triphala Guggulu* thrice in a day with lukewarm water after meal for two months. *Ksharasutra* was changed by weekly interval by railroad technic.

Table-1: Timeline:

Date	Procedure	Medication
29/ 09/2023	Patient visited *Shalyatantra* OPD, TRUS done	Orally 1gm *Triphala Guggulu* thrice in a day with lukewarm water after meal
03/10/2023	Patient admitted in ipd for further management	
04/10/2023	Haematological and bio-chemical investigations- Normal. Mantoux test- Negative	
06/10/2023	Partial fistulectomy with *Ksharsutra* application done under spinal anaesthesia Pus sent for Culture- Escherichia coli present	

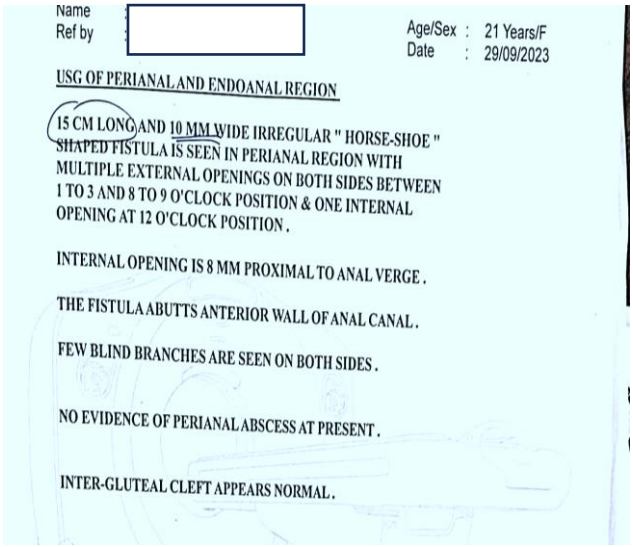
Table-2: Stage wise improvement:

1st post-operative day Figure-4	Post-operative wound was cleaned with *Panchvalakala kwatha* and packed with *Panchavalkal Malhara.*	4 *Ksharsutra* present
8st post-operative day	Wound was healthy, 4 to 5 drops of pus was present on milking from external opening at 1 and 10 O'clock	4 *Ksharsutra* changed 1 to 12 0'clock- 6 cm 1 to 11 0'clock-10 cm Labia majora to 11 0'clock- 5.5 cm 11 to 8 0'clock- 6 cm
16st post-operative day	Wound was healthy, 4 to 5 drops of pus was present on milking from external opening at 1 and 10 O'clock	4 *Ksharsutra* changed 1 to 12 0'clock- 5.1 cm 1 to 11 0'clock- 8 cm Labia majora to 11 0'clock- 3.4 cm 11 to 8 0'clock- 3.9 cm
24st post-operative day	Wound was healthy.	4 *Ksharsutra* changed 1 to 12 0'clock- 4 cm 1 to 11 0'clock-7.2 cm Labia majora to 11 0'clock- 2 cm

		11 to 8 0'clock- 2.8 cm
32st post-operative day	Wound was healthy.	2 *Ksharsutra* changed 1 to 12 0'clock- 3.2 cm 1 to 11 0'clock-6.4 cm Labia majora to 11 0'clock- 1 cm (cut through) 11 to 8 0'clock- 1.3 cm cut through)
40st post-operative day	Wound was healthy.	1 *Ksharsutra* changed 1 to 12 0'clock- 2 cm 1 to 11 0'clock-5.4 cm (removed)
48st post-operative day Figure-5	Wound was healthy.	*Ksharsutra* from 1 to 12 0'clock-1.2 cm (cut through)
54st post-operative day	Wound healed completely.	
2 Months follow-up Figure-6	Minimal scar mark present. No any sign and symptom of recurrence.	

Clinical Images:

Figure-1- Pre-operative



Name :
Ref by :

Age/Sex : 21 Years/F
Date : 29/09/2023

USG OF PERIANAL AND ENDOANAL REGION

15 CM LONG AND 10 MM WIDE IRREGULAR " HORSE-SHOE " SHAPED FISTULA IS SEEN IN PERIANAL REGION WITH MULTIPLE EXTERNAL OPENINGS ON BOTH SIDES BETWEEN 1 TO 3 AND 8 TO 9 O'CLOCK POSITION & ONE INTERNAL OPENING AT 12 O'CLOCK POSITION.

INTERNAL OPENING IS 8 MM PROXIMAL TO ANAL VERGE.

THE FISTULA ABUTTS ANTERIOR WALL OF ANAL CANAL.

FEW BLIND BRANCHES ARE SEEN ON BOTH SIDES.

NO EVIDENCE OF PERIANAL ABSCESS AT PRESENT.

INTER-GLUTEAL CLEFT APPEARS NORMAL.

Figure-2- TRUS report

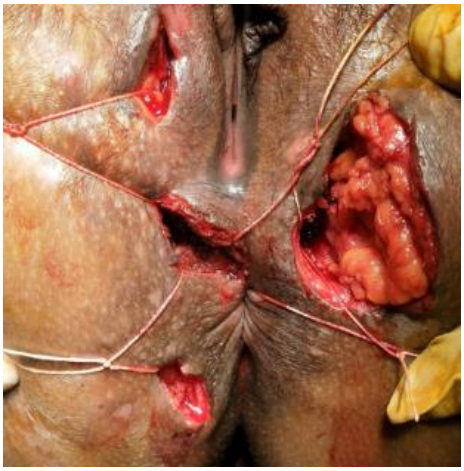


Figure-3-post op day0

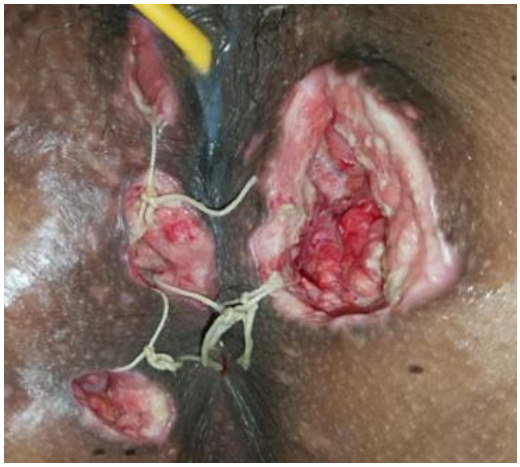


Figure-4-post op day1

Figure-5 - Post-op day 48th

Figure-6- 2Month follow-up

DISCUSSION:

The *kṣārasūtra* was changed after every seven days till the cut through of tract with complete healing was achieved. One *Ksharsutra* which was kept for draining purpose from 1 to 10 O'clock was removed after 6weeks to preserve perineal body as the perineal body is a weak structure. The length of the external sphincter anteriorly is half compared to males. [4]

Ksharsutra being a seton carries out all the functions of a seton but it also has advantages overa normal cutting seton. The pH of *Ksharsutra* is alkaline in nature therefore, it scrapes all the unhealthy granulation lining the fistulous tract. *Ksharsutra* has an antimicrobial property therefore, it promotes wound healing by creating a healthy environment. So, it is a chemical seton working by "excision, scraping, draining, debriding, sclerosing, and healing simultaneously without surgical excision." [7]

Triphala Guggulu also act as an anti-inflammatory, analgesic and antibiotic drug. [8] *Panchvalkal Kwatha* was given for sitz bath having predominantly of *Kashaya Rasa*. So, it helps in *Vrana Shodhana* and *Vrana Ropana.* [9], [10] It also helps to maintain local hygiene of the perianal region thus it prevents the chances of secondary infection. *Panchavalkal Malhara* having predominantly of *Kashaya Rasa* helps reduce the amount of exudates and it acts with Ropana (healing) and Shodhana (cleansing) property. By the property of Vrana ropan it help accelerate the wound healing and with quality of Varnya it help reduce the wound scar.[11]

Patient was followed for 2 months after wound get healed and there was no any sign of recurrence. It indicates the efficacy of the Ayurveda management.

CONCLUSION:

These results suggest that the Ayurveda can provide cost effective and minimal invasive management which helps in improvement of quality of life of patient with no recurrence and any complications. As this is a single case report, it require more work on such cases for further scientific data.

Acknowledgement: Prof (Dr.) Anup B. Thakar Director ITRA for providing all facilities in the Department

Patient's consent: Consent was taken from the patient before starting the treatment protocol as well as prior to publication of the case details and pictures.

Conflict of interest: Author declares that there is no conflict of interest.

Guarantor*:* Corresponding author is guarantor of this article and its contents.

Source of support: None

How to cite this article:
Yadav R, Bhalara B, Dudhamal TS. Partial Fistulectomy and *Ksharsutra* in Complex Anterior Horseshoe fistula - A Case Report. Int. J. AYUSH CaRe. 2024;8(1): 10-15.

REFERENCES

1. Kamal Gupta, Laser in proctology, Evaluation and Management of Anorectal Abscess, Springer Nature Singapore Pte Ltd., Ch.11, p-168
2. Kamal Gupta, Laser in proctology, Evaluation and Management of Anorectal Abscess, Springer Nature Singapore Pte Ltd., Ch.11, p-166.
3. Shastri A, Editor, (12th ed.). Commentary Ayurved Tatva Sandipika on Sushruta Samhita of Nidan Sthana; Chapter 4 Verse 6. Chowkhambha Sanskrit Sansthan, Varanasi. 2001;317.
4. Kamal Gupta, Laser in proctology, Evaluation and Management of Anorectal Abscess, Springer Nature Singapore Pte Ltd., Ch.11, p- 171.
5. Kamal Gupta, Laser in proctology, Role of Lasers in Fistula: Fistula Laser Closure (FiLaC), Springer Nature Singapore Pte Ltd., Ch.15, p- 244.
6. Kumara A, Jayaratne A, Pushpakumara, Amarasinghe DL. Antibacterial activity of Ksharasutra (medicated setone), in the management of Fistula in ano. Int J Res Ayurveda Pharm 2016; 7(4):1–6.
7. Dr. Kamal Gupta, Laser in proctology, Sphincter-Saving Techniques, Springer Nature Singapore Pte Ltd., Ch.14, p- 229.
8. Kayum A, Mohamad K. Complex fistula in ano managa- ment with feeding tube tie seton. Med Channel 2009; 19(3):44–7.
9. Mishra S.N. editor. Commentary Siddhiprada on Bhaishajya Ratnavali; reprint. Ch.47 ver. 49, Chaukhambha Surbharati Prakashan, Varanasi. 2016, p-824.
10. Vaikhari A Dhurve, TS Dudhamal. Formulations of Panchavalkala As Vrana Shodhana and Vrana Ropana: A Brief Review. Indian J Ancient Med Yog. 2020;13(1):17–22.
11. Shri Bhavamishra, Bhavprakasha, Poorva Khanda. Mishraprakaranam, 6/202. In: Mishra SB, Vaishya SR, editors. 8th ed. I. Chaukhambha Sanskrit Bhawan, Varanasi. 2012; p-189.