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PARTIAL FISTULECTOMY WITH MODIFIED CONVENTION KSHARSUTRA TECHNIQUE (MC-KST) FOR BHAGANDARA (FISTULA-IN-ANO) MANAGEMENT– A CASE REPORT

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ABSTRACT

In the *Sushruta Samhita*, *Bhagandara* is identified as one of the *Ashto Mahagada*, which denotes eight formidable diseases. This condition is recurring, making treatment more challenging. As a result, it causes disruption in daily living. Because of the concern of recurrence and faecal incontinence, it has a significant impact in the surgical community. Despite numerous innovative sphincter-preserving methods, complex anal fistulas are more challenging to handle. *Ksharasutra* has been used for ages in Ayurveda to treat all types of anal fistulae with remarkable success. In situations with complex fistula in Ano, used Modified Conventional *Ksharasutra* Therapy (MC-KST) is technically used to control sepsis, promote early healing by intercepting the fistulous tract, and preserve sphincteric function. *Kshar Sutra*, a medicated thread made according to conventional methodology, has proven to be a significant advancement in the treatment of fistula-in-Ano. This case concern with 38-year male came with complaints of a pus discharge, from perianal region, on and off pain, difficulty in sitting since 1.5 year and constipation since one month. The fistula was operated under spinal anaesthesia by MC KST technique. The patient was treated on OPD basis with straightforward approach, exhibiting fewer surgical complications, cost-effectiveness, and a weekly change of thread. The individual recovered

well after the complete removal of the tract over a period of seven weeks. The *Kshara sutra* treatment for *Bhagandara* proves to be a quicker healing process. Therefore, it stands as an efficient and minimally invasive option for treating *Bhagandara.*

KEYWORDS: Fistula-in-Ano, *Matra Basti*, medicated thread, modified conventional *ksharasutra* therapy.

INTRODUCTION

Among all the anorectal disease fistula is the commonest one. *Sushruta*, a great Indian surgeon, taught about the usage of *Kshara* for the treatment of ano and other fistulas anorectal disorders.[1] Patient experience the discomfort and morbidity due to the chronically formed granulation tract from anal canal. In this common indication include throbbing pain, drainage, irritation, and social discomposure.[2]

In the advance stages include constipation, painless dropwise bleeding, slight discomfort, and protrusion of piles. Surgical treatments for haemorrhoids include endoscopic band ligation, surgical process, laser treatment, photonics laser, and haemorrhoidectomy, each having their own set of limitations. This refers to a form of perianal sepsis that commonly arises following the occurrence of an anorectal abscess and cryptoglandular infection. Symptoms include discomfort, drainage, irritation, and social embarrassment.[3]

Ayurvedic perspective on *Bhagandara* and the *Ksharasutra*

Fistula was described in Ano by Acharya Sushruta as *Bhagandara*, along with its symptoms and causes as well as its management. The ailment that causes *Darana* (tear) in the area of the pelvis, rectum, and abdomen, as Yoni does. *Bhagandara* is the name given to the urine bladder, and when These are known as *Bhagandara Pidaka* because they are not opened. An anomalous passageway between two hollow or tubular structures bodily surface (*Bhaga, Guda, or Basti)* and the organ (*Bhaga, Guda, or Basti*) A fistula is a gap between two hollow or tubular organs. Kshara annihilates the vitiated tissue and causes it to fall. It is the most significant of the *Shastras. Anushastra* is so named because it performs duties such as excision, cutting and scraping reduces all three *Doshas*. *Nadivrana* as recounted by Acharya *Sushruta*, (sinus) should be avoided.

CASE HISTORY

38 years old male came to OPD with complaints of a pus discharge from perianal region, on and off pain, difficulty in sitting, from 1.5 year and constipation since one month. He was on a mixed diet (non-veg and vegetarian) and worked for a private corporation and had no any history of DM/HIN/IHD. He was alcoholic and nonsmoker. During lithotomy, one external orifice was discovered at 6 o'clock and 7 o'clock, which 5 cm far from the anal margin in front with skin periphery normal per rectum result. Patient felt well one 30days ago until experiencing anal distress. He had pus discharge and irritation in his anal before 15 days. So, he went to the emergency department and was admitted to the male surgical ward for additional treatment. All routine investigations, patient consent for pre-operative assessment were completed.

The blood, urine, and stool tests were all normal. Patient was obese with a blood pressure (B.P.) of 150/90 and no history of undergoing hypertension treatment.

On examination, a sever pus oozing was found 6 o' clock and 7 o' clock position. Sphincter tonicity was normal on Digital Rectal Examination. Proctoscopy revealed no abnormalities.

The classical *Bhagandara pidaka Lakshanas*, such as *goodamoola*, *ruk*, and *jwara*, were observed. *Ksharasutra*, as described by *Susrutha*, is mentioned in *Bhagandara*.[4]

Trans Rectal Ultrasound (TRUS) was done which shows a 55 mm long fistula at perianal region at the right side, and one external opening at 6 o' clock in the skin that extending up to the surrounding scrotum and two internal openings at 6 o' clock and 7 o' clock position.

MRI FISTULOGRAME was done which shows there is well defined liner intersphicenteric tract extending from right perianal surface and opening in to anal canal at 6 -7 o'clock position. Two external opening noted.

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Name	VILAS VAMKAR	Date	17/02/2023
Age/Sex	58Y/M	Registration No.	27916230100 7554
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Protocol of Sequences: Sag. CDR, AAAc T1, T2 FS, STIR, T2, PD FS

MRI FISTULOGRAM

FINDINGS:

There is well defined linear intersphincteric tract extending from the right perianal surface and opening into the anal canal at 6 – 7 O'clock position.

Two External opening are noted.

It appears hypointense on T1W and hyperintense on T2W & FS sequences with hypointense rim on both T1W & T2W sequences.

Associated minimal inflammatory changes noted appearing hyperintense on T2W FS and PD FS sequences.

Another small blind ending trans sphincteric tract is seen ending at the ischioanal fossa.

Levator ani muscles appears normal.

Bilateral ischiorectal fossa appears normal.

Visualised bones show normal signal intensity.

IMPRESSION: MRI Fistulogram plain study reveals chronic Grade 1 intersphincteric fistula on the right side (St James's University Hospital classification) with blind ending transsphincteric tract left side as described above

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MRI FUSTULOGRAM REPORT

METHOD

BEFORE OPERATIVE

Patient was NBM 4 hours before operation. The written consent and part preparation was done. The enema was administered in the early morning prior to the surgery. All preoperative medication was given.

Operative

During spinal anaesthesia, the patient was kept in lithotomy position and part preparation was done with antiseptic lotions and wrapped. Depending on the type of *Bhagandara*, a partial

fistulectomy is performed, leaving the sphincter intact. An appropriate probe is then inserted into the fistula's exterior orifice. Patency testing was done from the external opening of orifice with the help of hydrogen peroxide solution and betadine by using a 10 mL syringe which was positive. The exterior aperture probed, and the internal opening at the anal canal was revealed. The fistulous tract was removed with the help of blade and cautery by coring technique from the external orifice to the external anal sphincter, after *Ksharasutra* was applied. Once haemostasis was appropriately complete, the wound secured with Betadine gauze after T-bandage was applied.

FIG. 1: Pre-Operative.

FIG. 2: 1st Post Operative Day.

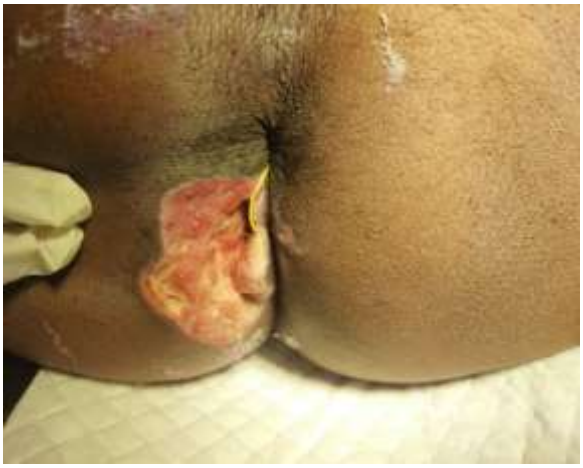

Fig. 3: After 3 Weeks.

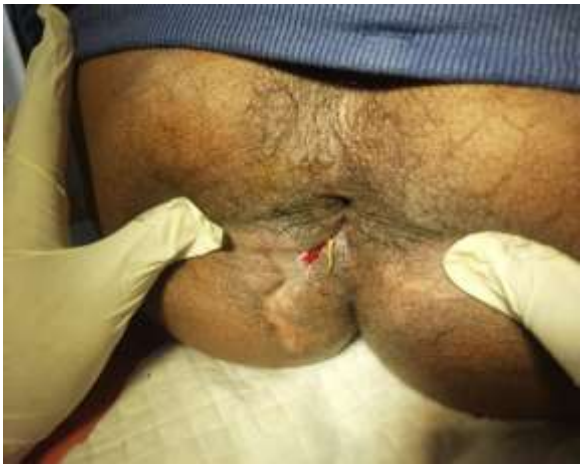

Fig. 4: After Seven Weeks.

Post surgery: Throughout the intraoperative and postoperative periods, intravenous hydration, suitable antibiotics, and analgesics were administered as required. Patients was instructed to undergo a Sitz bath with, *Panchavalkala* decoction the following morning, followed by applying an antiseptic dressing of *Shatadhauta ghrita* and receiving *Matra Basti* with 15ml *Jatyadi Taila*. To address constipation, it was recommended to take 7 gm of

Eranda Bhrishta Haritaki powder with lukewarm water at bedtime. The *Ksharasutra* was replaced weekly using a rail-road technique, and both the length of the thread and the condition of the wound were documented.

DISCUSSION

At the initial days after the operation, the *Ksha sutra* was intact, the wound showed good recovery, and there were no signs of pus oozing or seepage. It was recommended to take a daily Sitz bath with *Panchavalkala*, and the wound was advised to be treated using *Jatyadi ghrita*. On the third day after the surgery, when a minor pus discharge from the tract became noticeable, the wound surface remained healthy. No inflammation, suppurate, or peeking were observed, indicating complete removal of the fistulous tract.

During the seventh week after the surgery, the incision underwent cleaning, and the presence of healthy granulation tissue was employed to promote healing. The regimen of Sitz bath with *Panchavalkala* decoction, dressing with *Jatyadi Ghrita*, and regular *Kshara sutra* changes was maintained, resulting in notable healthy wound, wound closure and reduction in size of the wound. The entire process of cutting and healing the fistulous tract was accomplished over a span of 7 weeks.

The alkaline properties of *Kshara* facilitates the cauterization of dead tissue, making the processes of cutting and healing more manageable.[5] As a result the alkaline pH of *Kshara sutra*, local infection was effectively controlled, contributing to the healing process. The cutting is believed to result from the local actions of *Kshara*, *Snuhi*, and mechanical pressure, maintaining the health of the area. No signs of swelling, pus discharge, or gaps were noted at the site, indicating the thorough removal of the fistulous tract.[6]

The cleansing and wound-healing properties of decoction contributed to maintaining cleanliness and supporting the healing of wounds.[7] The mode of action of *Kshar Sutra* can be summarized as Tissue destruction, succeeded by excision, is induced by applying mechanical pressure to the affected area. The proteolytic nature of *Snuhi* latex contributes to the dissolution of tissue. *Kshar* exhibits properties such as *shodhan, ropana, and lekhana*. *Haridra* powder serves as an effective antiseptic and promotes potent wound healing.[8] In this particular case, the chances of recurrence are exceptionally less. Because the required time for cutting through and mending the incision is longer in plain *Kshar sutra*, individuals with this condition are emotionally disturbed. Thus, *Kshar* sutra possesses the dual capacity

to cut and repair muscles, suggesting its role as a sphincter-preserving therapeutic method for fistula-in-Ano.

CONCLUSION

This case study indicated that partial fistulectomy with Modified Convention *Kshar sutra* Technique application resulted less scar formation after wound healing with no anal incontinence in the treatment of *Bhagandara*. Hence According to the case study, partial fistulectomy with *Kshar sutra* treatment is the simple, safest, minimum invasive therapy and finest alternative.

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