



Case Series

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MANAGEMENT OF BHAGANDARA (FISTULA-IN-ANO) WITH KSHARASUTRA AND PANCHAVALKALA KASHAYA SITZ BATH: A CASE SERIES

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ABSTRACT

Sushruta Samhita describes Bhagandar (Fistula-in-Ano) as one of the Ashtamahagada (the eight major diseases). This disease is recurrent, which makes it more challenging to treat. So, it causes inconvenience in routine life. The concept of the Ksharasutra has been explained in the context of Nadi vrana (sinus) by Acharya Sushruta. Hippocrates has explained the application of plain silk thread for the Fistula-in-Ano. Ksharasutra, being a medicated thread prepared per the standard protocol, has been proven to be a big revolution in treating Fistula-in-Ano. The Ksharasutra plays an important role, and its efficacy has been explained in various studies. In the present case series, we present here 5 different Bhagandar manifestations, managed with shamana aushadhis, Ksharasutra, anulomana (laxative effect), and panchavalkala sitz bath. The patients were treated on an OPD basis with a weekly thread change. The patients recovered well with complete tract excision within 6-12 weeks. Treatment of Fistula-in-Ano with Ksharasutra is a simple technique with low complications, less reoccurrence, and is cost-effective. Thus, Ksharasutra is very effective with the minimum invasive surgical modality for managing Bhagandara (Fistula-in-Ano).

Keywords: Apamarga Kshara sutra, Ayurveda, Bhagandar, Fistula-in-Ano.

INTRODUCTION

Bhagandara is one of the most complicated anorectal disorders, making treatment extremely challenging¹. The frequency of Fistula-in-Ano is 8.6 instances in men and 12.3 cases in women per 1,000 people, with a mean patient age of 38.3 years². Bhagandara is a sickness or ailment that causes intense pain to the perineum, anal, and pelvis. A boil (abscess) in the perianal region is the first sign of the condition, which, if left untreated, can develop into Bhagandara, a discharge tract. A Fistula-in-Ano is an inflammatory tract with an exterior opening, a perianal opening, a second opening in the perianal skin, and a central opening, or internal opening, in the rectum or anal canal, all of which are lined with unhealthy fibrous granulation tissue³. It is thought to have a crypto-glandular origin, and the fistulous tract most frequently develops due to poor anal gland drainage⁴. The common side effects include discomfort, puffiness, drainage, itching, and social embarrassment. Fistulectomy, fistulotomy, and other newer procedures with their benefits and drawbacks, such as fibrin glue, fistula plugs, Video Assisted Anal Fistula Therapy (VAAFT), Ligation of Inter-sphincteric Fistula Tract (LIFT), etc., are also accessible as treatment alternatives. Bhagandara is one of the Ashtamahagada diseases, i.e., challenging to treat, according to Sushruta, the father of surgery⁵. Ksharasutra treatment methods are mentioned. In some circumstances, surgical techniques to treat fistulas are effective. The 25th edition of Bailey and Love's Short Practice of Surgery⁶ has also just introduced a procedure. As it may create excision, incision, and scraping, which can subside all three doshas, kshara is regarded as one of the most successful para-surgical

procedures. After performing a multicenter research trial, the Indian Council of Medical Research has confirmed that Kshara karma in a Ksharasutra is a more effective treatment for Fistula-in-Ano than traditional surgery⁷. Snuhi ksheera, Haridra powder, and Apamarga kshara are frequently used to prepare Ksharasutra. Another name for it is Apamarga Ksharasutra.

MATERIALS AND METHODS

A total of 5 cases (male) were treated with the Ksharasutra, shamana aushadhis, and panchavalkala sitz bath. All the patients were clinically examined to know the details of the tract with the patient's prior consent. Routine physical examinations and investigations for blood and urine examinations were done to determine patients' fitness for surgery. Clinical examinations were carried out to rule out malignancies, such as tuberculosis, hypertension, diabetes mellitus, colitis, etc. Apamarga Ksharasutra was prepared according to the guidelines mentioned in the classics. Panchavalaka churna, Avipattikara churna, Jatyadi taila, and Abhayarishta were procured from authenticated GMP-certified pharmacies and used during treatment. The common protocol mentioned below was applied to all the cases.

Preoperative procedure

After taking written informed consent, the perianal part was prepared for operation by routine methods, and a soap-water enema was given early in the morning on the day of operation. An injection of tetanus toxoid (0.5 cc) was given intramuscularly, and a sensitivity test for injection of Xylocaine was also performed.

Operative procedure

With all the aseptic measures, local anaesthesia was given to the perianal region and draped by a sterile cut sheet in the lithotomy position. After performing partial excision of the fistulous tract with the help of a scalpel and electric cautery, Ksharasutra was applied to the remaining part of the tract. After achieving homeostasis, a sterilized dressing with a T-bandage was applied to the wound.

Post-operative

Based on the physician's opinion, antibiotics and analgesics were given orally for the first 3-5 days after Ksharasutra to control pain and avoid secondary infections; IV fluids were also offered on a daycare basis for observation. From the following day, patients were advised to take a warm sitz bath with panchavalkala kwatha for 10-15 minutes twice daily. Dressing with Jathyadi taila was done once daily. Avipattikar churna (powder) 5 gram with lukewarm water at bedtime daily was also prescribed.

Ksharasutra change

Ksharasutra was changed by the rail-road technique at a weekly interval. The progress of healing and length of thread were noted to assess the unit cutting time and healing (UCTH) until the complete cure of the fistulous tract was achieved.

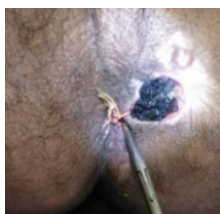
Diet and Lifestyle

All the patients were advised to take plenty of milk, green leafy vegetables, fruits, liquids, and a routine, non-spicy diet. The patient was allowed to do their routine work. The patient was also advised to avoid non-vegetarian, junk food, tobacco, and alcohol consumption during treatment.

CASE SERIES AND RESULTS

Case Report 1

A 28-year male patient of Vata-Pittaja prakriti patient complained of severe pain and pus discharge from the perianal region with intermittent bleeding and swelling for 3 years. By occupation, he was a hotel cook, not habituated to any addiction. On per rectal examination inspection at the perianal region, two external openings at 6 o'clock, 2 cm away from the anal ring and a 3 o'clock position 4.5 cm away from the anal ring were noted. After gentle probing from both external openings, both tracts were revealed, which seemed connected with an internal opening at 6 o'clock in the anal canal. The fistulous tract was partially excised, and Ksharasutra threading was done in the remaining part of the tract. The Ksharasutra was changed 8 times at weekly intervals, and the warm panchavalkala sitz bath and Jathyadi taila application were advised once a day. It was entirely healed in about two months.



One week after Ksharasutra



After 3 weeks of Ksharasutra



After 4 weeks of Ksharasutra



After 7 weeks of Ksharasutra



After 8 weeks of Ksharasutra

Case 1: Before and after Ksharasutra Pictures

Case Report 2

A 24-year male patient of Vata-Pittaja prakriti complained of pain in the anal region with hard mass, intermittent bleeding, and pus discharge from the perianal for 4 years. He was a farmer with a habit of consuming tobacco 4 to 5 times daily. Per rectal examination, one external opening at 1 o'clock position 3.5 cm away from the anal ring left side, just below the scrotum, was

observed with discharging pus, pain and tenderness. A tract was revealed after gentle probing from the external opening, which seemed connected with the internal opening at 1 o'clock in the anal canal. The fistulous tract was partially excised, and Ksharasutra threading was done in the remaining part of the tract. The Ksharasutra was changed 4 times at weekly intervals. And warm panchavalkala sitz bath and Jathyadi taila application are advised once a day. It was entirely healed in about one month.



Before Ksharasutra



After 1 week of Ksharasutra



After 2 weeks of Ksharasutra



After 3 weeks of Ksharasutra



After 4 weeks of Ksharasutra

Case 2: Before and after Ksharasutra Pictures

Case Report 3

A 27-year-old hotel manager male patient of Vata-Kaphaja prakriti complained of severe pain in the perianal region with hard mass, pus discharge with intermittent bleeding, pus discharge and

swelling for 1 year. On the rectal examination inspection at the perianal region, the single external opening was noted at the 5 o'clock position, 7 cm away from the anal ring; on gentle probing, a tract was revealed, which seemed to be connected with an internal opening at the 6 o'clock position in the anal canal. And

there was a substantial hard mass of 4 x 6 cm with severe tenderness and swelling noted at the left mediolateral aspect of the buttock (1 o'clock position). Previously patient was operated on for haemorrhoids 3 years back, and when he visited the higher centre in Belgaum for present complaints, he was advised to undergo Laser therapy at Pane, which is cost-effective; the patient refused it and visited us. The fistulous tract was partially excised, and Ksharasutra threading was done in the remaining part of the

tract. The abscess I and D was done and interconnected with the external fistula opening for easy drainage of collections, and Ksharasutra threading was done through both openings and ligated. Both Ksharasutra was changed 8 times at weekly intervals, and the warm panchavalkala sitz bath and Jathyadi taila application were advised once a day. It was entirely healed after 9 weeks.



Before Ksharasutra



Abscess



After 1 week of Ksharasutra



After 5 weeks of Ksharasutra



After 6 weeks of Ksharasutra



After 9 weeks of Ksharasutra

Case 3: Before and after Ksharasutra Pictures

Case Report 4

A 45-year Islamic male, non-vegetarian eater, a driver with a habit of tobacco chewing 8 to 10 times per day patient of Vata-Pittaja prakriti came with complaints of severe pain in the anal region with pus, foul smelling discharge, intermittent bleeding and swelling (Once in 15 days). Initially, he underwent I and D for abscess twice between 3 months of intervals, but later it was diagnosed as a high anal fistula. On inspection per rectal examination, one external opening at 9 o'clock on the right side,

5 cm away from the anal ring, was noted with discharging pus with pain and tenderness. After gentle probing from the external opening, a tract seemed to connect with an internal opening at 6 o'clock in the anal canal. The fistulous tract was partially excised, and Ksharasutra threading was done in the remaining part of the tract. The Ksharasutra was changed 8 times at weekly intervals, and the warm panchavalkala sitz bath and Jathyadi taila application were advised once a day. It was healed entirely in about 8th weeks.



3 o'clock Opening



After 1 week of Ksharasutra



After 2 weeks of Ksharasutra



After 4 weeks of Ksharasutra



After 6 weeks of Ksharasutra



After 8 weeks of Ksharasutra

Case 4: Before and after Ksharasutra Pictures

Case Report 5

A 27-year bank worker male Vata-Kaphaja prakriti patient complained of severe pain in the anal region with foul-smelling pus discharge, intermittent bleeding and swelling (Once in 15 to 20 days). Per rectal examination, one external opening at the 7 o'clock position right side, 4 cm away from the anal ring, was noted with discharging pus with pain and tenderness. After gentle

probing from the external opening, a tract seemed to connect with an internal opening at 6 o'clock in the anal canal. The fistulous tract was partially excised, and Ksharasutra threading was done in the remaining part of the tract. The Ksharasutra was changed 5 times at weekly intervals. And warm Panchavalkala sitz bath and Jathyadi taila application are advised once a day. It was entirely healed in about 6 weeks.



7 o'clock Opening



After 2 weeks of Ksharasutra



After 3 weeks of Ksharasutra



After 5 weeks of Ksharasutra



After 6 weeks of Ksharasutra

Case 5: Before and after Ksharasutra Pictures

DISCUSSION

On a weekly evaluation, every patient showed notable improvement in oedema, discomfort, discharge, and itching symptoms. At the time of the Ksharasutra alteration, good granulation, epithelization, and wound contraction were seen on every subsequent weekly examination. Finally, the Ksharasutra was cut through in all cases, and the fistulous tract wholly healed. The UCTH was 7.86 days/cm on average. Bhagandara is one of the Ashtamahagada, or the eight incurable diseases, according to ancient Ayurvedic texts⁸. Since a long time ago, Bhagandara has been treated with Ksharasutra therapy, which has a high success rate and a meagre recurrence rate. Ksharasutra has been studied by the Indian Council of Medical Research (ICMR) for the treatment of Fistula-in-Ano, and it is superior to traditional fistulectomy or fistulotomy with a low recurrence rate⁷. By dissolving the fibrous tissue, the kshara used on the thread makes cutting more manageable and helps slough off unhealthy tissue.

Additionally, Ksharasutra aids in the drainage of the tract's contents. It also has anti-inflammatory and anti-microbial properties because of its alkaline state⁹. The cutting is thought to be caused by kshara local activity during the first 1-2 days after application, followed by healing in the remaining 5-6 days before the following change. By applying mechanical pressure to the confined tissue, Ksharasutra may have assisted in cutting the fistulous tract and encouraged healing simultaneously¹⁰. Along with its ability to bind, Snuhi ksheera (Latex of *E. nerifolia* Linn.) also can generate tissue debridement through the use of its proteolytic enzymes¹¹. The powder of *C. longa* Linn. known as Haridra churna, aids in reducing excessive shotha (inflammation) and encourages the fistulous tract to heal smoothly¹². As a result, Ksharasutra has the combined effects of all three medications and is regarded as a novel medicine formulation for cutting and healing fistulous tracts. Ashwatha tree (*Ficus religiosa* Linn.), Plaksha (*Ficus lacor* Buch), Pakura/Portia tree, and Vata/Indian Banyan (*Ficus bengalensis* Linn) are the five trees whose bark is used to make panchavalkala kwatha (*Thespesia populnea* Soland). It possesses the abilities of vana prakshalana (wound cleaning), shodhana (purifying), ropana (healing), shothaghna (anti-inflammatory), and kwatha (decoction), which also possesses these abilities and keeps the wound healthy and encourages uneventful healing¹³. Applying Jathyadi taila is another effective shodhaka and ropaka yoga technique advised for wound care after partial excision of the fistulous tract¹⁴.

CONCLUSION

This case series of five patients demonstrates the impressive results of using the Ksharasutra to treat Bhagandara (Fistula-in-Ano), with the fistulous tract wholly healed and no evident complications, including secondary infections, sphincter damage or bowel incontinence. After the Ksharasutra, there is a reduced likelihood of recurrence. For improved control of the Fistula-in-Ano, one might use the Ksharasutra ligation.

Patients Perspective

All the patients expressed gratitude and pleasure with the treatment. The informed consent was obtained for all procedures and before publication by considering ICMR national ethical guidelines for biomedical and health research involving human participants.

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