

**EFFECT OF GUGGULU- SAPTAPARNA KSHAR SUTRA IN THE MANAGEMENT OF BHAGANDARA**Rakesh Singh<sup>\*1</sup>, Devesh Shukla<sup>2</sup>, U. N. Pandey<sup>3</sup> and Rajeev Kumar<sup>4</sup><sup>1</sup>P.G. Scholar, Department of Shalya Tantra, Gurukul Campus, UAU, Haridwar.<sup>2</sup>Associate Professor, Department of Shalya Tantra, Gurukul Campus, UAU, Haridwar.<sup>3,4</sup>Assistant Professor, Department of Shalya Tantra, Gurukul Campus, UAU, Haridwar.**\*Corresponding Author: Rakesh Singh**

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**ABSTRACT**

A standard Ksharasutra is used in the treatment of Bhagandar (fistula-in-ano) with high success and low recurrence. Previous research has found that Pittaj prakruti patients may experience more perianal irritation as a result of Apamarga Ksharasutra. In this study, Apamarga Kshara (Ash of *Achyranthes aspera* Linn.), Guggulu (*Commiphora mukul*), and turmeric powder were used to make Guggulu-based Ksharasutra (*Curcuma longa* Linn.). This Ksharasutra was prepared in accordance with API guidelines and stored in an airtight tube. A Pittaj predominant Prakruti patient with a fistula-in-ano with two external openings at the 6 and 7 o'clock positions of the anus was treated with Ksharasutra. Under spinal anaesthesia, the Guggulu-based Ksharasutra was applied in these two openings. The Ksharasutra was then changed on a weekly basis with 2% local xylocaine jelly. The thread length was measured weekly and recorded in the case to determine the unit cutting time (UCT). The first thread had a unit cutting time (UCT) of 7.05 days/cm, while the second had a UCT of 6.8 days/cm. Throughout the treatment, the patient continued to work without compromising his quality of life. After two months, the patient was free of all fistula symptoms, with a normal scar and no complications. This case study demonstrated the efficacy of Kaharasutra based on Guggulu in multiple fistula-in ano.

**KEYWORDS:** Guggulu, Saptaparna, Kshar Sutra, Bhagandara.**INTRODUCTION**

Because of its infamous nature, Bhagadara (Fistula-inano) is classified as one of the eight major diseases (Ashtomahagada) in Ayurveda.<sup>[1]</sup> Previous research has found that Pittaj Prakruti patients may experience more perianal irritation as a result of Apamarga Ksharasutra.<sup>[2]</sup> Fistulectomy, fistulotomy, and new techniques such as fistula plug and LIFT (Ligation of Intersphincteric Fistula Tract) are available options in surgery, each with their own limitations.<sup>[3]</sup> On the other hand, side surgery in fistula has always made treating surgeons fearful of recurrence and complications such as incontinence, particularly in cases of horse shoe fistula. Sushruta, the father of surgery, described how Kshara (alkaline ash) was used in Bhagandara (fistula-in-ano).<sup>[4]</sup> Later, Chakrapani and Bhavmishra described how to prepare and apply Ksharasutra in Bhagandara (fistula-in-ano).<sup>[5,6]</sup> A case of posterior multiple fistula in ano with external openings at 6 and 7 o'clock and internal opening at 6 o'clock was treated with the Ksharasutra application in this study. The Guggulu-based Ksharasutra was created in accordance with Ayurved Pharmacopodia of India (API) guidelines.<sup>[7]</sup> Snuhi (latex of *Euphorbia nerifolia*) was replaced with Guggulu in this Ksharasutra (*Commiphora*

*mukul*). The remainder of the procedure was carried out in accordance with standard Ksharasutra preparation. In this case, two Guggulu-based Ksharasutra were used concurrently, and the patient was cured within two months without complications.<sup>[8]</sup>

**Guggulu-based Kaharasutra preparation**

Barbour thread no.20, impure Guggulu diluted in spirit, Apamarga Kshara, and turmeric powder are the ingredients of Guggulu-based Ksharasutra. The linen barber thread no.20 was autoclaved before being mounted on the hanger. The first 11 coatings were done with plain Guggulu, followed by 7 coatings of Guggulu and Apamarga Kshara. Finally, three coats of Guggulu and turmeric were applied. After each coating, the hangers were placed in the Ksharasutra cabinet to dry and sterilise. A total of 21 coatings were applied, and the Guggulu-based Ksharasutra was stored in an airtight glass tube.

**Method of Ksharasutra Application****Prior to surgery**

Written informed consent was obtained for both the procedure and the publication of this case in the Journal.

The perianal region was prepared, and a soap water enema was administered at night. Before the procedure, a proctolysis enema was administered in the early morning. Haritaki (*Terminalia belerica*) 5gm + Saindhav Churna 1gm given at night with lukewarm water T.T. 0.5cc IM injection and sensitivity test for xylocaine intradermal injection were performed.

### Operative

Under spinal anaesthesia, the patient was held in a lithotomy position while painting (perianal part) and draping were performed. A methylene blue dye was instilled in the track of the 6 o'clock and 7 o'clock openings, then the dye was moved upward to the 9 o'clock position with bulging, indicating a cavity at that location. So, from 7 a.m. to 9 a.m., the track or cavity was opened and drained. One Ksharasutra was used from the external opening at 7 o'clock to the internal opening at 6 o'clock. Another Ksharasutra was also used at the 6 o'clock position, as well as an internal Ksharasutra. The open wound was gauze-packed and a T-bandage was applied.

### Post operative

The following morning, sitz bath/Avagaha sweda (warm water + Panchavalkala decoction) was recommended twice.<sup>[8]</sup> Diets rich in green vegetables and fruits were recommended. Nonvegetarian, spicy and oily foods, junk foods, and alcohol were not advised to the patient. The patient was advised to avoid long periods of sitting as well as riding/traveling. If the patient was constipated, Haritaki 5gm + Saindhav Churna 1gm with lukewarm water twice a day was prescribed.

### Subsequent change of Ksharasutra

Ksharasutra was changed on a weekly basis by inserting a new Ksharasutra into the fistula tract using 2% xylocaine jelly. The railroad technique was used to change the Ksharasutra until it was completely cut through the fistulous tract. The length of the Ksharasutra thread was measured at each change to assess treatment progress. The first thread was 8 cm long (external 7 o'clock to internal 6 o'clock) and the second thread was 5 cm long (external 6 o'clock to internal 6 o'clock). The first thread had a unit cutting time (UCT) of 7.5 days/cm, while the second had a UCT of 6.8 days/cm.

### DISCUSSION

Sushruta recommended various treatment modalities for Bhagandara (fistula-in-ano) based on Doshic involvement. According to the traditional, all types of Bhagandara are difficult to treat.<sup>[9]</sup> Even in modern surgery, there is a high recurrence rate with procedures such as fistulotomy and fistulectomy. There are various treatment options for fistula, but the condition still has a high recurrence rate. The Indian Council of Medical Research (ICMR) studied Ksharasutra in fistula-in-ano and concluded that it was better than conventional fistulectomy / fistulotomy with a lower recurrence rate.<sup>[10]</sup> In this study, Guggulu-based Ksharasutra was

applied to both tracts under spinal anaesthesia for the first time and then left in place. Both Ksharasutra were changed every week while xylocaine jelly 2 percent was applied. The length of the Ksharasutra was measured and found to be decreasing with each change, implying that the tract was cut. Kshara on thread has anti-inflammatory and anti-microbial properties. Kshara's alkaline nature cauterises dead tissue, making cutting and healing easier.<sup>[11]</sup> Ksharasutra has an alkaline pH (pH-10.3), which prevents bacterial infection in the fistulous tract. This cutting is assumed to be caused by local action of Kshara and Guggulu for the first 1-2 days, followed by healing for the remaining 5-6 days. The anti-inflammatory and antibacterial properties of Commiphora mukul aided in wound healing.<sup>[12,13]</sup> Curcuma longa or turmeric powder reduces caustic reaction and aids in tract healing.<sup>[14]</sup> Ksharasutra combines the effects of these three herbal drugs (Apamarga Kshara, Guggulu, and turmeric) and is said to be a one-of-a-kind drug formulation for cutting as well as healing of fistulous tracts. Every week, the patient was checked for symptom relief and wound status. The patient had Pittaj Prakriti, but due to Guggulu-based Ksharasutra, there was no burning or irritation of the Ksharasutra after the Ksharasutra was changed. The first thread (external 6 o'clock to internal 6 o'clock) was completed in 30 days, and the second (external 7 o'clock to internal 6 o'clock) was completed in 60 days. After two months, the patient was free of all fistula symptoms, with a normal scar and no complications.

### DISCUSSION

This single case study demonstrated that multiple fistulae in Pittaj dominant Prakriti patients can be treated safely with Guggulu-based Ksharasutra. Because this is a single study, more patients must be studied to reach a concrete conclusion.

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