



Case Report

GUGGULU BASED KSHARASUTRA IN THE TREATMENT OF BHAGANDARA (FISTULA-IN-ANO): CASE REPORT

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ABSTRACT

A standard *Ksharasutra* is practiced in treatment of *Bhagandara* (fistula-in-ano) with high success rate and minimum recurrence rate. In previous research it was noted that *Pittaj prakruti* patients sometime might cause more perianal irritation due to *Apamarga Ksharasutra*. So in this study *Guggulu* based *Ksharasutra* was prepared by *Apamarga Kshara* (Ash of *Achyranthes aspera* Linn.), *Guggulu* (*Commiphora mukul*) and turmeric powder (*Curcuma longa* Linn.). This *Ksharasutra* was prepared as per the API guidelines and preserved in air tight tube. A patient of *Pittaj* predominant *Prakruti* with fistula-in-ano having two external opening at 6 and 7 o'clock position of anus was treated with application of *Ksharasutra*. The *Guggulu* based *Ksharasutra* was applied in these two opening under spinal anesthesia. Then *Ksharasutra* was changed by weekly interval under local xylocaine jelly 2%. The length of thread was measured weekly and noted in the case to assess the unit cutting time (UCT). The unit cutting time (UCT) of first thread was 7.5 days/cm and second one had UCT 6.8 days/cm. During the treatment patient was doing his job regularly without hampering the quality of life. After 2 months patient was free from all symptoms of fistula with normal scar and without any complications. This case study demonstrated the utility of *Guggulu* based *Ksharasutra* in multiple fistula-in-ano.

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INTRODUCTION

In Ayurveda, *Bhagandara* (Fistula-in-ano) is considered under the heading of eight major diseases (*Ashtomahagada*) due to its notorious nature.^[1] In previous research it was noted that *Pittaj Prakruti* patients sometime might cause more perianal irritation due to *Apamarga Ksharasutra*.^[2] In surgery fistulectomy, fistulotomy, new techniques like fistula plug, and LIFT (Ligation of Inter-sphincteric Fistula Tract) are available options with their own limitations.^[3] On other hand side surgery in fistula has always put fear in mind of treating surgeons of recurrence and complications like incontinence, particularly in cases of horse shoe fistula. Sushruta, the father of surgery described application of *Kshara* (alkaline ash) in *Bhagandara* (fistula-in-ano).^[4] Later on Chakrapani and Bhavmishra detailed the preparation and application of *Ksharasutra* in *Bhagandara* (fistula-in-ano).^[5,6] In this study, a case of posterior multiple fistula-in-ano having external opening at 6 o'clock and 7 o'clock position and internal opening at 6 o'clock position was treated with

the *Ksharasutra* application. The *Guggulu* based *Ksharasutra* was prepared as per Ayurved Pharmacopoeia of India (API) guidelines.^[7] In this *Ksharasutra* the *Snuhi* (latex of *Euphorbia nerifolia*) was replaced with *Guggulu* (*Commiphora mukul*). The rest of the procedure was followed as per preparation of standard *Ksharasutra*. In this case at the same time two *Guggulu* based *Ksharasutra* were applied and patient was cured within two months without complication.

Case History

A 32 years old male patient of *Pittavataj Prakriti* consulted at outpatient department of Shalya Tantra with complaints of perianal pus discharge, itching, intermittent bleeding and swelling. These symptoms had since last 20 days with compromising his quality of life during his duty schedule. Patient worked as government service; had habit to consume spicy foods and addiction to tobacco chewing. Patient also had complaints of loose motion and constipation

i.e., symptoms of *Grahani* (Irritable Bowel syndrome-IBS).

On inspection at perianal region two external opening at 6 O'clock and 7 O'clock positions were noted. After probing it was found that tract of 6 o'clock position and 7 O'clock positions both were connected to the internal opening at 6 O'clock position. For conformation trans-rectal ultrasound (TRUS) was done and report showed that 33 mm long linear fistula in right perianal region and 14 mm long linear fistula in posterior perianal region. Hence on the basis of clinical observations and TRUS the case diagnosed as posterior multiple fistula-in-ano.

The length of both external opening from anal verge was 3 cm and open internally below anorectal ring. The induration was noted at posterior and right side of anus of perianal region having two external openings. Routine blood and urine examinations of patient were done and found within normal range. There was no previous history of surgery and other illness noted by patient. So patient was diagnosed as a case of *Bhagandara* (multiple fistula-in-ano) and admitted in Shalya male ward for further management with *Ksharasutra*.

Preparation of Guggulu based Kaharasutra

The ingredients of *Guggulu* based *Ksharasutra* are Barbour thread no.20, impure *Guggulu* diluted in spirit, *Apamarga Kshara* and turmeric powder. The linen barber thread no.20 was taken and autoclaved then it was mounted on the hanger. The initial 11 coatings were done with plain *Guggulu* later on 7 coatings of *Guggulu* and *Apamarga Kshara* was done. Lastly 3 coatings of *Guggulu* and turmeric were done. After every coating the hangers were kept in the *Ksharasutra* cabinet for drying and sterilization purpose. Total 21 coating were done and the *Guggulu* based *Ksharasutra* was kept in air tight glass tube.

Method of Ksharasutra Application

Pre operative

The written inform consent was taken for the procedure as well as for publication of this case in Journal. The perianal part was prepared and soap water enema was given at night. Proctolysis enema was given in early morning before procedure. *Haritaki* (*Terminalia belerica*) 5gm + *Saindhav Churna* 1gm with luke warm water given at night. Inj. T.T. 0.5cc IM and sensitivity test for inj. xylocaine intra-dermal was done.

Operative

Under spinal anesthesia patient was kept in lithotomy position and painting (perianal part) and draping was done. A methylene blue dye was instilled in the track of 6 o'clock opening and 7 o'clock opening then the dye was go in upward direction to 9 o'clock position with bulging which indicate cavity at that place. So the track or cavity at 7 o'clock to 9 o'clock was laid open and drained One *Ksharasutra* was

applied form external opening at 7 o'clock position to internal at 6 o'clock position. Another *Ksharasutra* was also applied at 6 o'clock position and internal at 6 o'clock position (Fig-1). The open wound was packed with gauze and T-bandage applied.

Post operative

From next morning, sitz bath/*Avagaha sweda* (warm water + *Panchavalka* decoction) was advised for two times.^[8] Diets like green vegetables, fruits was advised. Patient was advised not to consume non-vegetarian, spicy and oily food, Junk foods, alcohol. Patient was advised to avoid long sitting and riding/travelling. *Haritaki* 5gm + *Saindhav Churna* 1gm with luke warm water two times a day was prescribed if patient felt constipated.

Subsequent change of Ksharasutra

Ksharasutra was changed on weekly interval by inserting a new *Ksharasutra* in the fistula tract applying 2% Xylocaine jelly. The *Ksharasutra* was changed by railroad technique till complete cut through of fistulous tract. During each change length of *Ksharasutra* thread was recorded to assess the progress of treatment. The initial length of 1st thread (external 7 o'clock to internal 6 o'clock) was 8 cm and that of second thread (external 6 o'clock to internal 6 o'clock) was 5 cm. The unit cutting time (UCT) of first thread was 7.5 days/cm and second one had UCT 6.8 days/cm.

DISCUSSION

Sushruta advocated different treatment modalities to treat *Bhagandara* (fistula-in-ano) as per *Doshic* involvement. As per the classic all types of *Bhagandara* are difficult to treat. ^[9] Today also in modern surgery there is high recurrence rate with surgery like fistulotomy & fistulectomy. There are different modalities available for fistula but still there is high recurrence rate. The ICMR (Indian Council of Medical Research) has been studied on *Ksharasutra* in fistula-in-ano and concluded better than conventional fistulectomy / fistulotomy with minimum recurrence rate. ^[10]

In this study, *Guggulu* based *Ksharasutra* was applied in both the tract first time under spinal anesthesia and kept in situ. Both *Ksharasutra* was changed after every week at the same time applying xylocaine jelly 2%. The length of *Ksharasutra* was noted and found decreased on every change which suggested the cutting of tract. The applied *Kshara* on thread acts as anti-inflammatory and anti-microbial activity. Alkaline nature of *Kshara* cauterizes of dead tissue which facilitates cutting and healing.^[11] The pH of *Ksharasutra* is alkaline (pH-10.3) so prevents bacterial infection in fistulous tract. This cutting is presumed by local action of *Kshara* and *Guggulu* during initial 1-2 days followed by healing in rest of the 5-6 days. The *Commiphora mukul* is well known for its anti-inflammatory, antibacterial property which helped in wound healing. ^[12,13] *Curcuma longa*

or turmeric powder minimizes reaction of caustics and helped for healing of tract.^[14] *Ksharasutra* has combined effect of these three herbal drugs (*Apamarga Kshara*, *Guggulu*, turmeric) and said to be unique drug formulation for cutting as well as healing of fistulous tract. Patient was checked regularly on every week for relief in symptoms and status of wound.

The patient was predominant *Pittaj Prakriti* but due to *Guggulu* based *Ksharasutra* there was no burning and irritation of *Ksharasutra* after subsequent change of *Ksharasutra*. The 1st thread (external 6 o'clock to internal 6 o'clock) cut through within 30 days and second (external 7 o'clock to internal 6 o'clock) cut through within 60 days. After 2 months patient was free from all symptoms of fistula with normal scar and without any complications (Fig-5).

CONCLUSION

This single case study demonstrated that multiple fistulae of *Pittaj* dominant *Prakriti* patients can be treated with *Guggulu* based *Ksharasutra* without any adverse effects. As it is a single case study so it requires to study in more number of patients for concrete conclusion.

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REFERENCES

1. Ambikadata Shastri, Sutrasthana 33/4, Sushruta Samhita, Commentary Ayurved Tatva Sandipika (12th ed.), (Varanasi: Chowkhambha Sanskrit Sansthan 2001) 136.
2. SJ Lobo, C Bhuyan, SK Gupta, TS Dudhamal. Comparative clinical study of *Snuhi Ksheera Sutra* & *Tilanala Ksharasutra* with *Apamarga Ksharasutra* in *Bhagandara* (Fistula-in-ano), *AYU*, 33(1), 2012:85-9.
3. EK Johnson, JU Gaw, and DN Armstrong. Efficacy of anal fistula plug vs. fibrin glue in closure of anorectal fistulas, *Dis Colon Rectum*, 49(3), 2006, 371-376.
4. Ambikadata Shastri, Sutrasthana 11/7, Sushruta Samhita, Commentary Ayurved Tatva Sandipika (12th ed.), (Varanasi: Chowkhambha Sanskrit Sansthan 2001) 35.
5. Sharma PV, Chakradata, Chikitsasthan 5/1481st ed (Varanasi: Chowkhambha Publisher 2007), 87.
6. Mishra BS, Bhavprakash Madhya Khanda 5/144 Commentary Vidyotini of Bhavmishra (11th ed), (Varanasi: Chowkhambha Sanskrit Bhavan 2007). Page 66.
7. AK Dwivedi, M Chaudhry, DK Kulshreshtha, and JPS Sarin. Standardization of *Ksharasutra*, *Journal of Research in Ayurved and Siddha*, 12 (1-2), 199, 85-92.
8. YT Acharya, Chikitsasthana 8/36, Sushruta Samhita, Nibandhasangraha Commentary (reprint ed.), (Varanasi: Chowkhambha Orientalia 2009) 440.
9. YT Acharya, Nidansthana 4/13, Sushruta Samhita, Nibandhasangraha Commentary (reprint ed.), (Varanasi: Chowkhambha Orientalia 2009) 282.
10. NK Shukla, R Narang, NG Nair, S Radhakrishna, and GV Satyavati. Multicentric Randomized controlled clinical trial of *Ksharasutra* (Ayurvedic Medicated thread) in the management of *Fistula in ano*, *Indian Journal of Medical Research*, 94, 1991, 177-185.
11. M Londonkar, VC Reddy, and Abhay Ku. Potential Antibacterial and Antifungal Activity of *Achyranthes aspera* L., *Recent Research in Science and Technology*, 3(4), 2011, 53-57.
12. RB Arora, V Kapoor, SK Gupta, and RC Sharma. Isolation of a crystalline steroidal compound from *Commiphora mukul* & its anti-inflammatory activity, *Indian Journal of Experimental Biology*, 9(3), 1971, 403-404.
13. MA Saeed, and AW Sabir. Antibacterial activities of some constituents from oleo-gum-resin of *Commiphora mukul*, *Fitoterapia*, 75(2), 2004, 204-208.
14. K Kohli, J Ali, MJ Ansari, and Z Raheman. Curcumin: A natural anti-inflammatory agent, *Indian Journal of Pharmacology*, 37(3), 2005, 141-147.

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CASE STUDY PHOTOGRAPHS



Guggulu



Apamarga Kshara



Turmeric powder



Guggulu based Ksharasutra

Healing Procedure with Ksharasutra



Fig. 1: Ksharasutra in fistulous tract

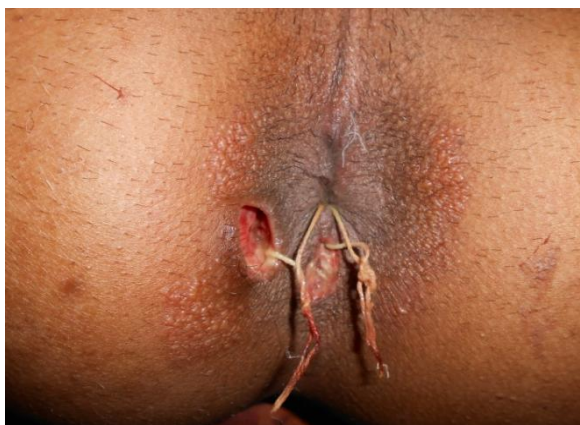


Fig. 2: Post operative 8 days



Fig. 3: After one month of treatment



Fig. 4: One thread cut through



Fig. 5: Healed scar after 2 months