

**A RANDOMISED CLINICAL STUDY TO EVALUATE THE EFFECT  
OF *SNUHI-APAMARGA KSHARASUTRA* WITH *GUGGULU-ARKA  
KSHARASUTRA* IN THE MANAGEMENT OF *BHAGANDARA W.S.R*  
TO FISTULA IN ANO**

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**ABSTRACT**

*Bhagandara* is considered as one among the *Ashtamahagada*. It causes pain in *bhaga*, *guda* and *Basti*. It can be compared to Fistula in Ano, which is a chronic inflammatory tract with an external opening in the perianal skin and an internal opening in the anal canal or rectum. Fistulotomy and fistulectomy are the common surgical treatments for Fistula in ano. But this procedure is associated with various complications like recurrence, anal stricture, anal incontinence, disfigurement etc. *Ksharasutra* is a well known minimally invasive surgical treatment of *Bhagandara*. Use of *Ksharasutra* in the fistulous tract is capable of dissolving the tough fibrous tissue and its debridement thus creating a healthy base for healing. It is a safe, effective treatment modality which is not associated with the complications associated with modern surgery. The present study has

been planned to compare the effect of *Snuhi-Apamarga Ksharasutra* and *Guggulu-Arka Ksharasutra*.

**KEYWORDS:** *Bhagandara*, Fistula in Ano, *Guggulu-Arka Ksharasutra*, *Ksharasutra*, *Snuhi-Apamarga Ksharasutra*.

## INTRODUCTION

*Bhagandara* is a disease of perianal region causing splitting or tearing pain in the region of *bhaga*, *guda* and *Basti*.<sup>[1]</sup> The disease can be compared to Fistula in Ano, which is a chronic inflammatory tract with an external opening in the perianal skin and an internal opening in the anal canal or rectum.<sup>[2]</sup>

The incidence of fistula in Ano developing from an anal abscess ranges from 26% to 38%.<sup>[3]</sup>

*Kshara* is the one which has the property of destruction and removal of *dusta twak mamsa* and purification of vitiated *dosha*.<sup>[4]</sup> The *Sutra* prepared using *kshara* is called as *Ksharasutra* which is indicated as one of the treatment modalities in *Bhagandara*.<sup>[5]</sup>

*Acharya Sushruta* included *Bhagandara* under *Ashta Mahagada* as it is very difficult to cure.<sup>[6]</sup> Modern surgeons prefer the technique of fistulotomy and fistulectomy for the treatment of Fistula in ano.<sup>[7]</sup> But in this procedure prolonged hospitalization and long period of post-operative wound dressing is required which is more expensive and is associated with high recurrence rate and complications like anal incontinence and anal stenosis.

*Ksharasutra* is well known for the treatment of *Bhagandara* with insignificant rate of recurrence. Use of *Ksharasutra* in the fistulous tract is capable of dissolving the tough fibrous tissue and its debridement thus creating a healthy base for healing. It is a safe, effective treatment modality which is not associated with the complications associated with modern surgery.

*Sushruta* has mentioned 23 drugs from which *Kshara* can be prepared.<sup>[8]</sup> *Arka* and *Apamarga* are two among them. *Guggulu* is a binding agent and has anti-inflammatory and analgesic properties, and hence taken instead of *Snuhi* in the preparation of *Guggulu arka Ksharasutra*.

As research work has already done on *Arka Ksharasutra* and *Apamarga Ksharasutra* separately and by comparing both of them in various institutions, the present study has been planned to compare the effect of *Snuhi apamarga Ksharasutra* and *Guggulu arka Ksharasutra*.

## MATERIALS AND METHOD

40 patients diagnosed with *Bhagandara* were selected from SDM Ayurveda Hospital, Udupi. The patients were divided into 2 groups having 20 patients each, Group A was treated with *Snuhi apamarga Ksharasutra* and Group B was treated with *Guggulu-Arka Ksharasutra*.

It was an open label, comparative clinical study with pre-test and post-test design. A clinical study was planned in anorectal clinic of Department of Shalya Tantra, S.D.M. Ayurveda Hospital, Udupi, Karnataka. The patients were examined thoroughly and selected as per the Proforma designed for this study. The total selected patients were divided into 2 equal groups having 20 patients each and Group A was treated with *Snuhi-Apamarga Ksharasutra* and Group B was treated with *Guggulu-Arka Ksharasutra*.

## OBJECTIVES

- To evaluate the effect of *Snuhi-Apamarga Ksharasutra* in the management of *Bhagandara*.
- To evaluate the effect of *Guggulu-Arka Ksharasutra* in the management of *Bhagandara*.
- To compare the effect of *Snuhi-Apamarga Ksharasutra* and *Guggulu-Arka Ksharasutra* in the management of *Bhagandara*

## Method of preparation of *Snuhi-Apamarga kshara sutra*

The technique of preparation of *Kshara Sutra* was the same as Standard *Snuhi-Apamarga Kshara Sutra* by the Department of *Shalya Shalakya*, IMS, Banaras Hindu University, Varanasi. It was prepared by 21 coatings in which 11 coatings were of *Snuhi ksheera*, 7 coatings of *Apamarga kshara* and 3 coatings of *Haridra churna*.

For this purpose, a surgical linen thread no 20 was spread in the *Ksharasutra* hangers. Each thread on the hangers was smeared with *Snuhi ksheera* soaked gauze piece. These wet *Kshara* sutras were placed in *Ksharasutra* cabinet for drying. The same procedure was repeated daily, till 11 such coatings with *Snuhi ksheera* were accomplished. Next it was smeared with *Snuhi ksheera* and in wet condition thread was passed through *Apamarga Kshara*. This was placed in cabinet for drying. This process was repeated daily till 7 coatings of *Snuhi ksheera* and *Apamarga kshara* were achieved. Finally, 3 coatings were given with *Snuhi ksheera* and *Haridra churna* in the same way. This was the method of preparation of *Snuhi-Apamarga ksharasutra*.

**Method of preparation of *Guggulu- Arka ksharasutra sutra***

*Guggulu-Arka ksharasutra* was prepared similarly as per the preparation of standard *Snuhi-Apamarga Ksharasutra*, where *Guggulu* was used instead of *Snuhi*.

**INCLUSION CRITERIA**

- Selection of patients was done irrespective of sex.
- Patients in the age group of 20 to 60 years
- Patients with clinical signs and symptoms of *Bhagandara* and Fistula in ano as explained in Ayurvedic and modern text books.

**EXCLUSION CRITERIA**

- Patients suffering from systemic diseases like uncontrolled diabetes
- Patients suffering from secondary fistula due to carcinoma, ulcerative colitis, Tuberculosis
- Patients suffering from infectious disease like H.I.V, Hepatitis-B
- High anal fistula

**ASSESSMENT CRITERIA****Assessment of patient****Subjective Parameters**

- Pain
- Burning sensation
- Itching
- Discharge

**Objective**

- Unit cutting time (UCT) = Total no. of days taken for cut through Initial length of track in centimeter

**PAIN**

Visual analogue scale (VAS) 0-10 grading

0- No hurt

2- Hurts little bit

4- Hurts little more

6- Hurts even more

8- Hurts whole lot

10- Hurts worst

### **DISCHARGE**

- No discharge
- Discharge present

### **BURNING SENSATION**

- No burning sensation
- Mild occasional episodes of burning
- Moderate continuous burning sensation
- Severe continuous burning, disturbing sleep

### **ITCHING**

- No itching
- Mild occasional episodes of itching
- Moderate continuous itching
- Severe itching disturbing sleep

### **PRE-OPERATIVE MEASURES**

Certain preliminary procedures were necessary to be observed to make the patient mentally and physically prepared, so that the patient may be able to endure the forth coming therapeutic measure. The mental preparation of the patient played a vital role in this regard.

Patients were admitted to the hospital one day prior to operation. Previous day night the patient was asked to have light diet and then advised nil orally. The consent of patient in their own language was taken for *Ksharasutra* ligation under Short G.A or SA or I.V. Sedation. The part preparation was done. Soap water enema was also given. Inj. Tetanus toxoid & Inj. Atropine were given 30 min before procedure.

### **OPERATIVE PROCEDURE**

#### **Application of *Ksharasutra***

At first, the patient was made to lie in lithotomy position, perianal region was cleaned with antiseptic solution and draping was done after Short G.A or SA or I.V. Sedation.

Then the patient was reassured and gloved finger of the surgeon lubricated with xylocaine jelly was gently introduced into the rectum, a suitable probe was passed through the external opening of fistula. The tip of the probe was forwarded along the path of least resistance and was guided by the finger in rectum to reach into the lumen of anal canal through the internal opening and its tip was finally directed to come out of anal orifice. Then a suitable length of cotton thread was taken and threaded into the eye of probe. Thereafter the probe was pulled out through the anal orifice, to leave the thread behind in the fistulous track. The two ends of the thread were tied together with a moderate tightness outside the anal canal.

After this a gauze piece (surgical pad) soaked with *Jatyadi Taila* was placed over the part and T-bandage applied and patient then was shifted to post-operative ward.

### **Change of *Ksharasutra***

The *Ksharasutra* was changed at weekly interval, for this railroad technique was adopted. A new *Ksharasutra* was tied to the previously applied *Ksharasutra* in position towards outer end of the knot. Then an artery forceps was applied inner to the same knot. Then the old *Ksharasutra* was cut between the artery forceps and the knot. Pulling of the artery forceps along with the *Ksharasutra* ultimately replaced the old sutra by new *Ksharasutra*. Then the two ends were ligated tightly and bandaging was done.

The same procedure was followed for successive changes of *Ksharasutra* at weekly interval. At each sitting of changing of *Ksharasutra*, the length of the previous *Ksharasutra* was measured and recorded. This gave an idea of the amount of remaining tissue to be cut through and time necessary to cut through each centimetre of the tissue.

## **POST-OPERATIVE TREATMENT**

### **Adjuvant Therapy**

#### **Sitz bath**

Patients were instructed to take sitz bath with warm water for 15 minutes, adding 10ml of Dettol, twice daily till the track healed completely.

#### ***Triphala Guggulu***

Patients were advised to take 2 tablets of *Triphala Guggulu* tid, daily till the tract healed completely.

***Gandhaka Rasayana***

Patients were advised to take 1 tablet of *Gandhaka Rasayana* tid, daily till the track healed completely.

***Jathyadi taila***

Instillation of 10 ml Per rectum at Bed time till the track healed completely.

**Diet**

- Nutritional, light diet, green leafy vegetables and fruits were advised.
- 3 litres of water every day
- Not to strain excessively during defecation

***Apathya***

Excessive consumption of coffee, tea, alcohol, spicy-fried food, riding of two wheelers, cycling, prolonged sitting, excessive indulgence in coitus etc.

**FOLLOW UP**

All the patients were instructed to visit anorectal clinic of Shalyatantra OPD of SDM Ayurveda Hospital, Udupi once in a week to change the *Ksharasutra* and to make thorough follow-up of the cases.

After the track was cut through, patients were treated on the line of wound management till the wound healed completely. For each follow-up visit, patient was examined for any recurrence of the disease or any associated complications.

**RESULTS AND CONCLUSION**

- Both the *Ksharasutra* showed significant reduction in pain, burning sensation, itching and pus discharge.
- *Snuhi apamarga Ksharasutra* was having UCT of 7.3 days and *Guggulu arka Ksharasutra* was having UCT of 7.5 days.

**DISCUSSION**

The present study was aimed to evaluate the effect of *Snuhi-Apamarga Ksharasutra* with *Guggulu-Arka Ksharasutra* in the management of *Bhagandara* w.s.r to fistula in ano.

*Acharya Sushruta* explained *Bhagandhara* as a pathological condition where tear of genital region or urinary bladder or anorectal region (in general perineal region) can be seen. In Ayurveda this disease is considered as one of the *Ashtamahagada*. As the management of the condition is difficult it is associated with high rates of recurrence. Sushruta has described the etiology, pathology, signs and symptoms, varieties etc., of *Bhagandara*.

*Ksharasutra* is para surgical procedure which is safe, sure and cost-effective method in the treatment of fistula in ano and other anorectal disorders. This technique facilitates the pus drainage from the fistulous tract and controls the infection by its antimicrobial action. Minimal recurrence rate, cost effective, simpler, safe, less surgical complications are the main advantages of this procedure.

In this study, Both *Snuhi-Apamarga Ksharasutra* and *Guggulu-Arka Ksharasutra* have good Unit cutting time and wound healing property. Both *Ksharasutra* have significant therapeutic action of reducing Pain, Burning sensation, Itching and Discharge by creating an effective and continuous drainage of collected pus. For the patients treated with both *Ksharasutra*, there was no recurrence or any complication of the disease during the intervention or in the follow up time.

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