



## MANAGEMENT OF BHAGANDARA (FISTULA-IN-ANO) BY STANDARD KSHARSUTRA UNDER THE INFLUENCE OF INGUDI TAILA

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### Abstract

*Bhagandar* (Fistula-in-ano) is the most common disease of the ano-rectal region. It has been classified by Acharya Sushruta as one among the eight troublesome diseases (Eight *Mahagada*). Nowadays, *Ksharsutra* therapy in the treatment of *Bhagandar* (fistula-in-ano) is becoming more and more popular amongst the surgeons of India because of its simplicity, more healing affect and less discomfort to the patient and also being economical too. To make the treatment more widely popular and acceptable, *IngudiTaila* is used with Standard *Ksharsutra*. *IngudiTaila* which is inherited with the properties of *Kaphahara*, *Vrana*, *Sodhana*, *Vranaropana* and *Lekhana*. By the use of *Ksharsutra* and *inguditaila* in the treatment of *Bhagandara* (fistula-in-ano), Pain, Burning sensation, Pus discharge and Itching are reduced significantly and the condition of wounds was healthy.

Key words – *Bhagandara*, *Mahagada*, *Kharsutra*, *Ingudi Tail*.

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## INTRODUCTION

Acharya Sushruta has described *Bhagandara* under eight *Mahagada* which are supposed to be difficult to care<sup>1</sup>. *Bhaga* is considered as *Yoni*, but in Ayurvedic literature it is widely used as Bhag, Basti and Guda. *Bhagandara* literary mean *Daran in Bhaga pardeshg i.e around Guda around Guda, Yoni and Basti*<sup>2</sup>. Due to *Daran* of *Bhag, Guda* and *Basti* it is called '*Bhagandara*'. In its early stage it is called '*Pidika*'. Later on it is named as *Bhagandara*. These are called fistula-in-ano because they break through the Ferincum (*Bhaga*) anus and with one or more openings. *Bhagandara* (Fistula-in-ano) is a disease of ano-rectal region and characterized by single or multiple sinuses. It is inflammatory tract which has an internal opening in the anal canal of rectum. This track is lined by unhealthy granulation and fibrous tissue.

### Need for the study

*Bhagandara* (Fistula-in-ano) is a very painful, disagreeable and uncomfortable condition which presents a challenging situation from the view point of surgeons. It is quite common for a patient to seek treatment for this disease through surgical intervention because this is the only alternative known to the modern medical practitioners. But the high recurrence rate even after a number of operations is not uncommon which makes this disease very notorious to treat. After the operations for *Fistula-in-ano*, frequent damage to the sphincter muscles result in incontinence faecal soiling and rectal prolapse and there are chances of recurrence even in the hands of most competent surgeons. The success rate of *Ksharsutra* therapy in the management of *Bhagandara* (Fistula-in-ano) is almost 95-98%. This is the reason for the continuous research works going on to upgrade the *Ksharsutra* therapy. *Ksharsutra* is a unique and an established procedure for difficult surgical diseases because of negligible recurrence rate after this, no need for hospitalization and being economical and less invasive. The standard *ksharsutra* is prepared from surgical linen thread No. 20 with total 21 coatings of *Snuhi ksheer*, paste of *Apamarga kshara* and *Haridra* powder as per standard procedure.

Application of *Ksharsutra* in the management of *Bhagandara* (Fistula-in-ano) causes pain, inflammation, burning sensation and some discharge. To curb these post *Ksharsutra therapy* associated complications *Ingudi taila* having the properties of *Jantughna krmighana* and *dust vranopana* was used in this clinical study.

## AIMS AND OBJECTIVES

The aims of present study were-

1. To develop simplified and ideal therapy with addition of more healing effect and to minimize the discomfort associated with *Ksharsutra therapy* in *Fistula-in-ano*.
2. To study indigenous medicine described by the *Sushruta Samhita* in the management of *Dushta-Vrana i.e. Bhagandara*

## MATERIALS AND METHODS

In present clinical study *ksharsutra* was prepared in P.G. Department of Shalya Tantra at National Institute of Ayurveda, Jaipur, Rajasthan as per the standard guidelines.

### Selection of patients

Patients suffering from *Bhagandara* (Fistula-in-ano) were selected from OPD/IPD of P.G. Department of Shalya Tantra of National Institute of Ayurveda, Jaipur, (Raj). Selected patients were categorized in two groups.

**Group A-** Patients were treated with standard *Kshara-sutra* management protocol for *Bhagandara* (Standard *Ksharsutra & Jatyadi Taila*)

**Group B-** Patients were treated with standard *Kshara-sutra* for *Bhagandara* and *Ingudi Taila* was applied in the fistulous track instead of *Jatyadi Taila*.

### INVESTIGATIONS

The following investigations were carried out before starting the research work.

- a) **Urine analysis-** Routine and microscopic examination
- b) **Hematological investigation-**
  - i. CBC, ESR
  - ii. Fasting and post meal blood sugar levels.
  - iii. Blood urea
  - iv. Serum creatinine
  - v. Bleeding time and clotting time
  - vi. HIV I / II
  - vii. HbsAg
- c) **Radiological study-X ray Chest P/A view,**
- d) **Fistulogram (Optional)**

### Intervention

- a. Standard *Apamarga Ksharsutra*
- b. *Ingudi Taila*

### *Ksharsutra*

Standard *Apamarga ksharsutra* was prepared in P.G. Department of Shalya Tantra, National Institute of Ayurveda, Jaipur (Raj.)

### *Ingudi Taila*<sup>3</sup>

Sanskrit Name	-	Ingudi, Tapasdrum, Angarbrichaa <sup>4,5,6</sup>
Hindi Name	-	Engun, Hingot, Hingua
Latin name	-	<i>Balanites aegyptiaca</i>
Family	-	Simaroubaceae

### Inclusion criteria

The following are the inclusion criteria-

1. All the patients were of the age between 20-60 years.
2. Patients were selected randomly, irrespective of gender, economical status, educational and marital status.

### Exclusion criteria

The following patients will be kept excluded from this study-

1. Patients suffering from systemic diseases like diabetes mellitus, tuberculosis were excluded from the study.
2. Patients suffering from cancer of rectum, crohn's disease, ulcerative colitis, fissure-in-ano and piles.
3. Patients which are suffering from HIV and Hepatitis B & C.

#### Criteria of assessment

To assess the clinical study subjective and objective criteria were used.

#### Subjective criteria<sup>7</sup>

Sr. No.	Observation	Predominance	Percentage
1	Age	31-50 years	75%
2	Sex	Male	90%
3	Prakriti	Vata-kaphaja	40%
4	Occupation	Business men	40%
5	Occupational nature	Sedentary	60%
6	Dietary habit	Non vegetarian (Mix)	70%
7	Marital status	Married	80%
8	Chronicity	upto 1 year	70%
9	Type of Bhagandara	Parisravi	60%
10	Type of fistula-in-ano	Low anal	70%
11	According to external opening	Single	90%
12	According to shape and extent	Complete	70%
13	According to clock wise position	2,6,8, O' clock	15%each
14	According to length of track	3,8	30%
15	According to discharge	Pus	50%
16	Relief in pain	Group B	91.18%
17	Relief in burning sensation	Group B	85.71%
18	Relief in pus discharge	Group B	91.66%
19	Relief in itching	Group B	87.09%
20	Cure rate	-	100%
21	Recurrence	-	00%
22	Unit cutting time	Fastest	6.66 days/cm
23	Unit cutting time	Slowest	7.36 days/cm
24	Total Average UCT	Group B	6.96 days/cm

## DISCUSSION

The *Ksharsutra* therapy for the management of *Bhagandara* was practiced and used for more than four decades with great success. The surgical treatment of *Bhagandara* (fistula-in-ano) presents many drawbacks. It causes large sized wound in perineum, sometimes loss of Sphincteric control or incontinence, re-infection with recurrence, severe pain during post-operative dressing and prolonged hospitalization.

At this juncture the technique of *Ksharsutra* management of fistula-in-ano can fill the void by offering a cure for this dreadful disease without, prolonged hospitalization and minimal post-procedure complications.

With *Ksharsutra* therapy, not only the recurrence rate is incredibly low, repeated application of *Ksharsutra* even in recurrence associated cases does not produce extensive tissue damage and mutilation of the normal anatomical structures. More ever the technique is more acceptable to

1. Pain
2. Burning sensation
3. Discharge
4. Itching

#### Objective criteria<sup>8</sup>

1. Healing
2. UCT
3. Pain

All the patients were taken for the weekly follow up for changing their thread till the track was completely cleared and healed up. Patients were analyzed on the basis of various parameters and then observation were made as per the criteria previously decided.

the patient as he remains perfectly ambulatory without less of his daily earnings.

The method of *Ksharsutra* treatment comparatively produces negligible trauma to sphincters and the external appearances of the skin. The patients are ambulatory and fit to work throughout the period of treatment. Due to simplicity, surety and safety with least inconvenience, recurrence and ambulatory modalities *Ksharsutra* therapy is the widely popular in India. Without any doubt, *Ksharsutra* is the most ideal method and dependable choice of treatment for this difficult disease.

In the present study total 20 cases were selected and randomly divided in two groups each of 10 patients. The observation of the study have been made on different parameters like age, gender, occupation, incidence, types of *Prakriti*, number of fistulous opening and quadrants. During this trial, incidence of *Bhagandara* was commonly seen in middle age groups of 31-50 years. The gender wise incidence shows that maximum patients were males. During

this study, it was found that fistula-in-ano is much common in persons with *vata-kaphaja prakriti*.

Maximum incidence of this disease was found among the business men and servicemen.

Non vegetarian were found to be more prone to *Bhagandara* due to the less fibrous diet. According to chronicity of disease, majority of the patients were found suffering from more than 1 year.

During trial maximum number of patients were found to be having *parishravi* type of *Bhagandara*.

Higher incidence of low anal type of fistula-in-ano was observed in the present study. Clock wise presentation of fistulae revealed that highest number of external openings were found at 2, 6 and 8 'O' clock positions.

The average unit cutting time of 7.36 day/cm was observed in both groups in between 51-60 years age.

The maximum average UCT in both groups was found in *sannipataja prakriti* patients

In Group B increased average UCT of 7.26 day/cm was found in subcutaneous type and minimum average UCT of 6.86 day/cm was seen in low anal type of fistula-in-ano

The maximum UCT was found 7.16 day/cm and 7.26 day/cm was observed in the patients having the chronicity between 1-3 years in group A and B respectively.

The minimum UCT in both groups A and B was found in the patients having the external opening at 2 'O' clock position and was observed to be 6.66 and 6.7 day/cm respectively.

#### Probable action of trial drugs-

In the fistulous wound *sthanik (regional) dhatuagnidusti* was found to be responsible for the advancement of pathogenesis and the concerned clinical features. The trial drug *Ingudi taila* had *krimighna, jandughna, lekha, deepana, pachana* properties which acted on *srotosanga* pacifies *sthanik (regional)ly* leading to early healing in the *dushta vrana*.

*Ropana* procedure is always associated with '*shodhana*' procedure because wound can't heal until it is clear. *Taila* is having the *Vata shamaka* properties, its action further get potentiated when administered as *matra basti*. *Taila* also worked as lubricant medium for stool.

Following the above mentioned qualities *Ingudi taila and Jatyadi Taila* were planned to manage the *Bhagandara* after standard *Ksharsutra* intervention..

#### Action of trial drug on assessment criteria.

The weekly assessment of the patient was done on the parameters – pain, burning sensation, pus discharge and itching.

##### Pain

The weekly percentage relief in pain in group A was 37.17%, 51.43%, 62.86% and 88.57% at the end of fourth week, statistical values showed highly significant result.

In group B weekly percentage relief in pain 35.29%, 50%, 67.65% and 91.18% at the end of fourth week, statistical values also reflected highly significant result.

Pain was the chief complaint in fistula-in-ano. Proper drainage of pus was found to be helpful in relieving pain. *Ingudi Taila* having properties of *Katu, Tikta rasa* and *Ushna veerya* was found to be effective and responsible for

*chedana, vranashodhana* and *Lekhana* karma in fistulous tract observed during this trial. *Ingudi taila* is more effective in relieving the pain owing to its *ushna veerya* properties that lead to more effective pacification of aggravated *vata* that is found to be major reason behind the pain. Due to presence of above properties of *Ingudi taila*, it has been observed that there is better response in the patients of group B.

##### Burning sensation.

The weekly percentage relief in burning sensation in Group A were 29.17%, 45.83%, 58.33% & 75%. At the end of fourth week statistical values showed highly significant result.

In group B patient's weekly percentage of relief in Burning sensation were 15.28%, 42.85%, 76.19% & 85.71%. At the end of fourth week statistical values showed highly significant result.

According to Ayurvedic text *Ingudi taila* is having pharmacological properties of *Madhura rasa* and *Pittashamaka*, owing to these it acts as *Vranaropana*, *Vranya*, *Mutrala* and *Kapha Nissaraka*. *Ingudi taila* has also been stated as *Jantughan, Vatanshaka* and *Kapha vrananashaka*. These all could be the explanation of the effects that lead to better improvement concerning the burning sensation.

##### Pus discharge

The weekly percentage relief in pus discharge in Group A were 32.26% 41.94%, 54.84% & 74.17% at the end of fourth week statistical values showed highly significant result.

In Group B patients weekly percentage of relief on pus discharge were 44.45%, 58.33%, 72.32% & 91.66% at the end of fourth week statistical values showed highly significant result.

As *Ingudi Taila* is having the *Kapha nissarka, rasayana, Deepana, Pachana, Mutral and Vrana ropana properties*. As per Bhava Prakash and Raj Nighnatu *Ingudi Taila* is also having *kriminishana* properties, *Katu, Tikta rasa* are very effective in controlling the pus discharge. Acharya Sushruta mentioned *Ingudi Taila* is useful in *Dushtavrana*. also an effective *srotoshodhaka* properties of *Ingudi Taila* could also be held responsible for the effect in managing the pus discharge and better outcome in the group B.

##### Itching

The weekly percentage relief in itching in Group A were 40.62%, 53.12%, 68.75% & 71.87% at the end of fourth week statistical values showed highly significant result.

In Group B patient's weekly percentage of relief on itching were 45.16%, 58.06%, 64.51% & 87.09%, at the end of fourth week statistical values showed highly significant result.

According to Ayurvedic *samhitas* *Ingudi Taila* is *Krimighna, Jantughna, Kandughna, Vishghana and Raktashodhaka*. Due to its above said properties it was found to be very effective in the management of itching in fistula-in-ano.

Due to its *raktashodhana* and *Kandughna* properties *Ingudi Taila* had been seen to be very effective in treating the itching in group B patients.

**Overall summarized Result.**

Symptoms	Group A			Group B		
	%	I value	P-value	%	I value	P-value
Pain	88.57%	11.195%	<0.001	91.18%	13.285	<0.001
Burning Sensation	75.00%	8.999	<0.001	85.71%	13.50	<0.001
Discharge	74.19%	7.666	<0.001	91.66%	21.60	<0.001
Itching	71.87%	10.05	<0.001	87.09%	12.85	<0.001

The above table shows the percentage relief in symptoms. I and p values on weekly assessment.

The percentage relief in pain in Group A was 88.57% and in Group B was 91.18% Relief from Burning sensation in Group A was 75% and in Group B was 85.71% Relief in Pus discharge in Group A was 74.19% and in Group B was 91.66% Relief from itching in Group A was 71.87% and in Group B it was 87.09%.

The result of group A and Group B were statistically highly significant after 4 weeks.

The above observations proved that in both the groups the unit cutting time (UCT) was almost same as in both groups standard *Ksharsutra* were applied but in the associated features like pain, burning sensation, pus discharge and itching better improvement percentage was found in Group B.

**CONCLUSION**

The study shows that *Ingudi Taila* was found to be more effective than *Jatyadi Taila* in the management of *Bhagandara* (fistula-in-ano).

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