

**A SINGLE PILOT STUDY OF BHAGANDARA W.S.R TO FISTULA-IN-ANO WITH
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ABSTRACT

Fistula-in-ano is known very well for its recurrence. Many modalities have been developed in current era, but none of them doesn't give a guarantee to avoid its recurrence. In Ayurveda, Kshar sutra therapy is a widely known and most popular across world. Kshar sutra therapy is known for its success among all ayurvedic surgeons, despite having so many advantages, there are some problems which are associated with kshar sutra application e.g., burning sensation, local irritation, pain to patient. In Gadnigrah text, written by Sri Vaidya Sodhala, a Kaaladi varti is mentioned in Bhagandara adhikar. Here a kaaladi sutra which is non-caustic is developed on this knowledge and pilot study was done on a patient. Here is a case of fistula-in-ano in a 42 years female patient was examined in Shalya OPD and a pilot study done with Kaaladi Sutra, considering it an alternative to Kshar sutra in treatment of Bhagandara as it cuts and cures the unhealthy tissue present inside the fistulous tract with decrease in burning sensation, pain, and irritation as compared to conventional kshar sutra.

KEYWORDS: Bhagandara, Kaaladi Sutra, fistula-in-ano, anorectal, non-caustic.**INTRODUCTION**

Fistula (literally translated from Latin, means a pipe or reed) is defined as an abnormal communication between any two epithelium lined surfaces. A fistula-in-ano denotes a chronic granulating track or cavity communicating the rectum or anal canal to the perineal skin. Commonly this disease develops after spontaneous bursting or operation of an abscess located in this area. It then remains open with discharge of pus, even after the abscess has healed.

The disease in which there is Vidaraṇa of Bhaga, Guda and Vasti Pradesa (get torn) is known as Bhagandara. In Apakva avastha, it is known as Piḍika, which in Paka Avastha, becomes Bhagandara.

The word *Bhagandara* is composed of two words Bhaga and Daraṇa.

Bhaga

The area between anus and genitalia is considered as Bhaga. (*Sabda Kalp druma*)

Darana

To tear or destroy (*Sabda Kalp druma*)

From the above definition it is clear that it includes not only different type of fistulas in ano but also sinuses communicating to the urogenital tract. Hence, *Bhagandara* may be considered a type of chronic sinus that may be secondary to the suppuration of an abscess in the perianal area, which discharges pus or blood. If left untreated or neglected there may be discharge of faeces, flatus, urine, and semen.

In present time *Kshara Sutra* therapy is found most approaching and attractive treatment modalities for fistula in ano.

An extensive work has been done on the treatment of Bhagandara by *Kshara Sutra* exploring various aspects of the problem and finding out the solution to them. The present study is related to similar type of medicated thread known as *Kaaladi Sutra* which has been prepared on the basis of a *Kaaladi Varti Yoga* mentioned by Sri Vaidya Sodhala in *Bhagandara Adhikara*. It consists of *Kaala (Rubia cordifolia)*, *Aragvadha (Cassia fistula)*, *Haridra (Curcuma longa)*, *Madhu (Honey)* and *Ghritha (Ghee)*. This is the non-caustic thread being which will be tried on different types of *Bhagandara*. Especially it is a painless thread, non-irritant and very useful in sensitive patients like females and elders.

CASE REPORT

Patient name-abc

Age- 42 years

Gender- female

Occupation- housewife

Chief complaints and duration

In the present pilot study, a 42 year old female patient came to our OPD of shalya tantra department, with chief complaints of boil present at perianal region, pus discharges on/off and itching at anal verge since 4 years.

H/o present illness

According to patient, she was asymptomatic before 4 years ago, she noticed a boil in her perianal region with discharge of pus on/off and itching. She consulted to a homeopathic practitioner and got no relief in her symptoms. So patient arrived to our RAC Chaukaghat Varanasi shalya tantra OPD no. 25 for better management of her problem.

Personal history

No H/o of HTN, DM, TB, Thyroid disorder, asthma or any other major illness.

Family history

No person from his family had suffered from similar complaints.

General examination

G.C- fair

CVS – S1 S2 Normal, no cardiac murmurs

RS- chest clears on both sides.

Digestive system- Appetite – normal, Bowel- clear.

P/A- no abnormality detected, no organomegaly. No previous surgical scar marks.

Umbilicus is inverted and abdomen is scaphoid in shape.

Pulse- 78/min,

BP-122/82 mm Hg,

Local examination

In lithotomy position of patient, on inspection, perianal skin normal, an external opening seen at 7 o'clock position approximately 2 cm away from anal verge. On

DRE, sphincter tone is normal, a small bulging palpated at 3 o'clock and internal pit palpated at 6 o'clock position. Probing was done to confirm site of internal opening of fistula-in-ano.

Investigations

CBC, CT, BT, RBS, S.urea, S. creatinine, ESR were normal, HIV 1&2, HCV, HBSAg are non- reactive, ECG- sinus tachycardia, chest Xray PA view – NAD.

Treatment given

Following the preliminary assessment, the patient was explained about the pilot study of *Kaaladi Sutra* procedure and informed consent was taken from the patient. Patient was posted for surgery under local anaesthesia, patient was given lithotomy position, DRE was done with 2% xylocaine jelly, after this 2% lignocaine with adrenaline was infiltrated along the fistulous track. External opening was present at 7 o'clock position and internal opening was palpated at 6 o'clock position on DRE. After this malleable probe was passed from external opening to internal opening and *Barbour's thread 20 no.* is introduced in the track and tied loosely. Haemostasis was achieved; all vitals were within normal limits. Antiseptic dressing was done and patient was shifted to shalya ward.

Later patient was instructed to take care of good bowel habits in addition local hygiene maintenance was instructed to patients and sitz bath was advised 5-10 minutes twice daily in lukewarm water. After one week *Kaaladi sutra* was introduced into the fistulous track by rail road technique. *Kaaladi sutra* was changed every week until the fistulous track was completely excised. The track was initially 2 cm in length and it takes 3 weeks for self cut through. *Jatiyadi taila vasti* was advised to patient during treatment. Unit cutting time for the entire length of track was 0.6 cm per week. No sign and symptoms of recurrence was observed till the completion of follow up period.

Table 1: Table of week and length of track.

Week	Length of the tract
1 week	2 cm
2 week	1.4 cm
3 week	0.8 cm

Table 2: Lakshana before and after applying *Kaaladi sutra*.

Lakshana	Before	After
Daha	++	-
Kandu	+++	-
Shoola	+++	+
Shrava	+++	-



Figure 1- pre op.



Figure 2-post op.



Figure 3- after first Kaaladi suture change



Figure 4- after second Kaaladi suture change



Figure 5- after third Kaaladi suture change



Figure 6- after cut through

DISCUSSION

Fistula-in-ano has many treatment modalities, and its is based on surgeon that which modalitiy is accepted by him and is suitable for patient with minimum recurrence rate. Kshar sutra has well established pilar in field of treatment of fistula-in-ano. Beside it, some problems are related to it as pain during subsequent kshar sutra changes, burning sensation, irritation. The Kaaladi sutra is proved to be a boon againt the kshar sutra and it can be judiciously used in females, children and pain sensitive individuals. It is proved to be a better alternative against the kshar sutra.

The main attractive feature of this Kaaladi sutra is that it is a non -caustic thread and so is less irritative. Similar types of such non- caustic thread are described in various texts including Sushruta Samhita. Acharya Sushruta, the

father of surgery has also explained a non- corrosive formulation in Bhagandar chikitsa adhyay chapter 8, the Argavadhadi varti, which is used for treatment in children and this varti is not so mridu and not so Tikshna, and shastra, kshar, agnikarma, virechan all are contraindicated in childrens. Many other ancient authors, Baisaj Ratnawali, Bhavprakash, Yog Ratnakar, also described such non- caustic formulation in their texts. Some authors also mention to use this varti in form of sutra.

Kaaladi sutra is prepared by smearing the sutra with argavadh (Cassia fistula) fruit pulp, honey, ghrita, Manjistha churna (Rubia cordifolia), haridra powder (Curcuma longa) and ethanol.

Argavadh is Kapha Pittahara, Vata Pitta shamaka, Manjistha is Kapha pitta shamaka, haridra is vatta pitta kapha shamaka, madhu is kapha pitta shamka, and ghrita is vatta pitta shamaka.

INFORMED CONSENT: Informed consent was taken from the patient before the procedure and publishing her details.

CONCLUSION

Fistula-in-ano is a very notorious disease. Many varieties of kshar sutra are available till now, but all are caustic in nature. Here we develop a non-caustic Kaaladi sutra and used over kshar sutra, to subside the burning pain, irritation, faced by patients during subsequent kshar sutra changes. In this case 3 weeks were taken by this non-caustic Kaaladi sutra to completely cut through the tract as it is less corrosive than a kshar sutra, so it takes somewhat more unit cutting time as compared to a conventional Kshar sutra. Also the coating of Kaaladi sutra is easily peeled off if exposed to air. So a vacuum tight sealing tubed must be used to store the material. As this is a pilot study done on a single patient, if packaging will be improved in future use, its unit cutting time might will become good as comparing to this case.

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AUTHORSHIP CONTRIBUTIONS

Dr Aishwarya Gupta- conceptualised the idea, collected all data, prepare original draft of article.

Prof Suman Yadav- supervised, reviewing and editing.

Dr Ashutosh Kumar Yadav- supervised and reviewed.

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