



CASE REPORT

## Kshara Sutra boon for cardiac patients with fistula an Ano

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**Abstract:** *Bhagandar* (Fistula-in-Ano) is explained as one among *Ashta Mahagada* (The eight major diseases) in *Sushruta samhita*<sup>1</sup>. This disease is recurrent in nature which makes it more difficult for treatment. So, it produces inconvenience in routine life. The concept of *kshar sutra* has been explained in the context of *Nadi vrana (sinus)* by Acharya Sushruta<sup>2</sup>. The application of plane silk thread has been explained by the Hippocrates for the fistula in Ano. *Kshar Sutra* being a medicated thread prepared as per the standard protocol has been proved as a big revolution in the treatment of fistula-in-Ano. Some patient of fistula in ano will present with the complicated systemic ailments at that time it is difficult to perform surgery and need some alternate line of management, *Kshara sutra* plays an important role and the efficacy has been explained in various studies. In present study, the case presenting with cardiac complaints and twice has been undergone PTCA. Recently has been diagnosed with FIA and advised for surgery as patient had undergone incision and drainage for perianal abscess not willing to undergo surgery and opted for the *kshar sutra*. The patient received in the OPD of SKAMCH RC and has been treated with the *kshar sutra* prepared in the Lab of SKAMCH & RC by following the standard protocol of preparation. The patient is treated on OPD basis with weekly change of thread. The patient recovered well with complete excision of the tract within span of 10 weeks.

**Key Words:** *Bhagandar*; Cardiac disease; Fistula-in-Ano; *Apamarga Kshara sutra*

### INTRODUCTION

In Ayurveda, the field of proctology (Ano-rectal disorders) is one such area which still has lot of scope for research through Ayurvedic approach. Ayurveda certainly has immense potential to overcome the challenging unsolved problems of various ano-rectal disorders. Among the various diseases *Ayurveda* has grouped eight diseases that severely affect health, are often associated with troublesome complications and challenge to the medical science i.e. *Vatvyadhi*, *Prameha*, *Kustha*, *Arsha*, *Bhagandar*, *Ashmari*, *Moodagarbha*, and *Udar Roga* are those eight diseases which are difficult to cure by nature.

In the present study attention is paid on the *Bhagandar*. According to *Sushruta Samhita*, this disease starts as *pidaka* which suppurates and on opening leads to *Bhagandar*. A very much similar condition is described in modern medical science as fistula-in-ano. A fistula-in-ano, or anal fistula, is a chronic abnormal communication, usually lined to some degree by granulation tissue, which runs outward from the anorectal lumen (the internal opening) to an external opening on the skin of the perineum or buttock (rarely, in women, to the vagina).<sup>3</sup>

*Kshar sutra* is a medicated thread (*Kshar sutra*, derived from Sanskrit word- *Kshara* means, to cut; *Sutra* means thread) coated with herbal drugs and rendered alkaline.

The introduction of *Kshar Sutra* into Fistulous tract gradually dissolves the fibrous tissues, drain the pus and enhance the granulation in the tract. With these numerous advantages of *Apamarga Kshara Sutra* during the treatment, it decreases symptoms like pain, burning sensation and inflammation in fistula *in ano*.

The purpose of this study was to highlight the effect of the *Apamarga kshara sutra* in the patient presenting with multiple cardiac complaints and undergone twice PTCA (Percutaneous transcatheter coronary angioplasty) and operated for perianal abscess by the contemporary science.

Fistula-in-Ano, considered second to haemorrhoids in importance among all ano-rectal abnormalities, is prevalent all over the world and its incidence in a London hospital study was reported to be 10 % of all in patients and 4% of all new out patients. Similar study in India reported anal fistula to constitute 1.6 % of

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all surgical admission.<sup>3</sup> Surgical treatment of fistula in ano requires hospitalization, regular post-operative care and is associated with a significant risk of recurrence (0.7 to 26.5%) and a high risk of impaired continence (5 to 40%).<sup>4</sup>To alleviate such miserable problems, surgeons have been craving for some alternative technique to treat these cases with minimal operative complications and failure. In this study, we have evaluated the efficacy of a unique procedure in the management of fistula-in-ano presenting with multiple cardiac complaints.

### MATERIALS AND METHODS

In the preparation of *Kshar Sutra*, (medicated thread) three herbal drugs had been taken namely

1. Latex of *Calotroperis procera* (family-Burseraceae)
2. Alkaline powder (Kshar) of *Achyranthes aspera* (family-Amaranthaceae)
3. Powder of *Curcuma longa* (family-Ascitamineae)

For alkaline powder (Kshar) of *Achyranthes aspera*, the whole plant was collected and allowed drying under shade. When completely dried, the plant was cut into pieces and burnt in iron vessel into ashes. The ashes were mixed with six times of water and allow the precipitate to settle down. Finally, the supernatant fluid was collected in a separate vessel. The residual ashes were again mixed with four times of water and the same procedure was repeated at least twice in order to take away all the alkaline material from ashes. The collected fluid was then filtered through double layered cotton cloth into clean glass container. Finally, alkaline powder was obtained from evaporation.

#### Preparation of Kshar sutra

For the preparation of thread, surgical linen thread *Barbour* number 20 was manually coated eleven times with the latex of *Arka*, followed by seven coatings of the latex and the alkaline powder of *A. aspera* alternatively, and dried. In the final phase, three coatings of latex and

Powder of *C. longa* was given alternatively. The thread thus prepared was sterilized by ultra violet radiation and placed in glass tube. The pH of the thread was ensured to be about 9.75, while the length was about 11-14 cm.

#### Patient details

A 58-year male Hindu by religion businessman by occupation. Patient received in the OPD of SKAMCH & RC 1<sup>st</sup> December 2014

1. Chief complaint
2. Discharge per rectum since 3 months.
3. Associated complaint
4. Itching and soiling of clothes.
5. Previous surgical/Medical history
6. History of PTCA twice in year 2010 and 2011.
  - i. No Medical history of DM, HTN, BA, KOCH'S and drug allergy.
7. History of Anorectal surgeries

Incision and drainage of ischiorectal abscess 40ml pus drained under general anaesthesia on 15<sup>th</sup> August 2014.

- On examination  
Well built, moderately nourished, Pallor – Absent, edema – Absent, Icterus- absent, Cyanosis – absent, lymph nodes – no enlargement noticed,
- Per rectal
- External opening noticed at 3<sup>o</sup> clock.
- Respiratory system
- NVBS, B/L EAE, ECE
- Cardiovascular system
- S1 & S2 heard.
- Gastrointestinal system
- P/A – soft, non-tender, BS ++.

#### Lab investigation

- Hb – 15.3gm%
- Tc – 9680 cells/cubic mm<sup>3</sup>
- Bleeding time – 2min 05sec
- Clotting time – 4min 45 sec.
- Prothrombin time – 12.8 sec.
- Activated partial thromboplastin time – 34.6sec.
- Random blood sugar – 104mg/dl.
- HBsAG – Non-reactive.
- HIV 1 & 2 – Non-reactive.
- ESR – 22mm/Hour.
- ECG – Normal - ST & T wave changes in aVF & Standard lead 3 suggested TMT and ECHO for further evaluation.
- CXR – PA view – Normal.
- Transrectal scan– evidence of complex fistulous tract along the posterior aspect of anal canal. Its internal opening at the 6 o' clock position at the level of the anal valve.

From intersphincteric space it is extending into a collection in the deep post anal space.

From deep post anal space, it is extending in to the both ischiorectal spaces.

From left ischiorectal fossa it is extending inferiolaterally towards external opening in the left gluteal region. From right ischiorectal fossa there is a cephaloid extension into para rectal region which is forming a collection flush with the right rectal wall.

Finding noted on day 1 of examination

- Number of openings - 1
- Clockwise position of opening – 3 ° clock
- Type of fistula – High level and trans sphincteric.
- Length of the tract – 10 centimetre.
- Discharge – positive watery mucoid not associated with blood and pus.
- Induration–circumferential 2cm around the external opening.
- Fibrous tissue around the external opening – present.
- Tenderness - ++

**Application of Kshar sutra**

The kshar sutra prepared with Apamarga (*Achrynthes aspera*) as per standard protocol<sup>6</sup> was used and the drug used was for treatment explained under one among the kshar dravya in classics<sup>7</sup>.

Before application of *Kshar sutra*, patients were advised to maintain proper local part preparation and general hygiene, to take mild laxatives for regularization of bowel. With proper bowel preparation, patient was placed in lithotomy position and after aseptic preparation of the part, probing was done

under local anesthesia. Probe was passed into the external opening of fistula; gradually extended to the internal opening and before taking it out, a *Kshar sutra* was threaded into the eye of probe, present at tail end and then probe was taken out through anal orifice. The *Kshar sutra*, passed through the fistulous track, and tied snugly outside the anal orifice and left *in situ* (primary threading) One week later, the old *Kshar sutra* was replaced by new one by railroad technique. After replacement of the *Kshar sutra*, the patient was advised to continue his normal routine work. The *Kshar sutra* was changed weekly.



Figure 1: Thread used to prepare kshar sutra

Figure 2: Glass tube containing Apamarga

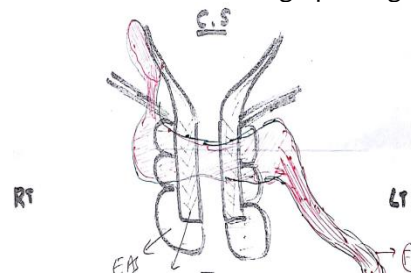


Figure 3: Transrectal scan – Cross section kshar sutra Prepared in SKAMCH Lab

**RESULTS**

Table 1: There was considerably changes found on various parameter which was as follows

Sr. No.	Date of thread change.	Length of tract	Discharge	Pain	Tenderness	Itching
1.	8 <sup>th</sup> Dec 2014	10 cm	+++	+++	+++	++
2.	10 <sup>th</sup> Dec 2014	09cm	+++	+++	+++	++
3.	19 <sup>th</sup> Dec 2014	08 cm	++	+++	+++	++
4.	24 <sup>th</sup> Dec 2014	07 cm	++	+++	++	++
5.	7 <sup>th</sup> Jan 2015	06 cm	++	++	++	++
6.	14 <sup>th</sup> Jan 2015	05 cm	+	++	+	+
7.	21 <sup>st</sup> Jan 2015	04 cm	+	+	+	Absent
8.	27 <sup>th</sup> Jan 2015	03 cm	+	+	+	Absent
9.	3 <sup>rd</sup> Feb 2015	02 cm	+	-	-	Absent
10.	10 <sup>th</sup> Feb 2015	01 cm	-	-	-	Absent
11.	18 <sup>th</sup> Feb 2015	0 cm	-	-	-	Absent

The complete excision of tract was achieved in span of 10 weeks

## DISCUSSION

- The management of fistula in ano in an effective manner has always been a challenge to the surgeon's world over.
- The conventional operative treatment of low fistula in ano is to lay open or completely excise the fistulous track and allow healing by open granulation.
- In high anal fistulae, complete excision is not possible and the operative procedure has had to be modified to consist of partial excision along with the use of a seton to achieve cure.
- Fistula in ano is known to be predominantly a disease of middle aged men

The *Kshar Sutra* therapy in fistula in ano of cryptoglandular origin, evaluated in this study is having many advantages with minimal complications and thus can be considered as preferable method of treatment for the following reasons: It is technically easy, safe, simple and does not require any special paraphernalia. It can be carried out in the outpatient department, as most of the cases do not require any anaesthesia also, it is considered as cost-effective treatment as compared to others.

1. It does not require hospitalization and patients could continue with their normal routine work, thus patient's social, psychological and economic status is not disturbed during the treatment.
2. Impaired continence is transient and related to the stage of 'cutting through' the anal sphincters by the *Kshar Sutra*, which subsequently lead to complete recovery, during follow-up.
3. The rate of recurrence after the treatment is negligible as compared to its various other seton and surgical management.
4. It is an ideal management for the patients of old age or having respiratory or cardiovascular diseases and or otherwise unfit for surgery.
5. No systemic side effects are encountered with *Kshar Sutra* therapy, although transient infection, local burning sensation, mild pain, itching and slight indurations are observed, which rarely need medication.
6. Post-operative tissue damage and scarring are minimal. The *Kshar Sutra* therapy, a unique method of drug delivery, most appropriate for healing the fistulous track offers an effective, ambulatory and safe alternative treatment in patients with fistula in ano<sup>8</sup>.

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