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# A Comparative Study of the Efficacy of *Tankana Ksharsutra* and *Apamarga Ksharsutra* in *Bhagandara* with special reference to *Fistula in Ano*

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## ABSTRACT

In Ayurveda, Sushruta described the disease *BHAGANDARA* which is same as fistula in ano. The treatment of fistula remains a challenging surgery. There are option of treatment with the goal of draining infection, eradicating the fistulous tract, avoiding recurrence and anal incontinence. But after surgery there are chances of incontinence and recurrences are often inevitable. While ksharsutra the mainstay of treatment of fistula in ano in Ayurveda do preserve the function of anal sphincter and prevent recurrence considerably.

Now a days most ksharsutra are made from *Apamarga* kshar, which is difficult to prepare. There is use of *Tankan* ksharsutra which is also indicated in fistula in ano. The purpose of my study to compare both ksharsutra, which one is superior and more effective in fistula in ano.

**Key Words** *Ksharsutra, Tankan, Apamarga, Bhagandara*

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## INTRODUCTION

The fistula is an opening between two organs of the body, or between an organ and skin that would not normally exist that are cause by injury, infection etc. Fistula in-Ano is defined as communication between anal canal and rectum to external surface. In majority of case it follows after a perianal or ischiorectal abscess which produced a thick yellow liquid or pus because of

infection. Fistula in-Ano is considered second to haemorrhoids in importance among all anorectal abnormalities.

In the modern surgery the treatment of fistula-in-ano involves an extensive excision of the fistula tract and wherever possible its ramification including a greater part of the surrounding healthy tissue as well as fear of sphincter damage during excision. Such a wide open wound refuses

## ORIGINAL RESEARCH ARTICLE

to heal spontaneously and might take months together to produce desired results of healing. The patient has to endure the most discomforting aspect of surgery in the form of wound infection, non-healing and painful post-operative dressings. In spite of all these problems, the cure is not certain and there is possibility of recurrence.

However the fistulectomy, fistulotomy, endorectal advancement flap, fistula plug etc. are new techniques available for Fistula in-Ano but disadvantage is recurrence, pain. So from ancient times idea about Ksharsutra for Fistula in-Ano is described.

Acharya Sushruta has advocated various types of procedures for the treatment of Bhagandara like kshara karma and Agni karma after lay open the tract. Charak and lateron Chadradatta explained about ksharsutra (ksharvarti) in the management of fistula in ano and Nadivrana.

In this method, the tract of anal fistula is threaded through and through by kshara sutra, which is brought out at the external surface of the anal orifice and tied with knots. The thread cuts through the fistulous tract in due course of time to lay open the wound which exhibits spontaneous healing. It appears that the caustic coating of kshara over the thread possess way for dissolution of the unhealthy fibrous tissue lining the fistulous tract, thus preparing the chronic wound to heal spontaneously with healthy granulation from the base of the wound whereas the thread provides an effective drainage of the wound.

Kshara sutra therapy can be considered as preferable method of treatment for the following reasons:-

- It is technically easy, safe and simple procedure and does not require any special post-operative care.
- It is a cost effective treatment as compared to others. It is an out-patient procedure and can be done in minor operation theaters.
- It does not require hospitalization and patient can continue with their normal routine work, thus patients social, psychological and economic status is not disturbed during the treatment.
- Impaired continence is transient and related to the stage of cutting through the anal sphincter by the kshara sutra, which subsequently leads to complete recovery during follow-up.
- The rate of recurrence after treatment is negligible as compared to others.

It is 1<sup>st</sup> in the 12<sup>th</sup> century, Chakrapani has given the explaining about Ksharsutra, later Raschikista vimarsha and Bhavprakash also giving the reference for Ksharsutra making .But as per standard Ksharsutra concerned Late Dr. P.J. Deshpande sir (Faculty of Ayurveda I.M.S B.H.U Varanasi) has revalidated and scientifically established the ksharsutra technique for the treatment of Fistula in-Ano. He used 21coating Apamarga ksharsutra in the management of Fistula in-Ano.

The standard kshara sutra is prepared by repeated coatings of Snuhi Ksheera, Apamarga Kshara and

## ORIGINAL RESEARCH ARTICLE

Haridra churna. But some problems are faced during the collection and preparation of Apamarga Kshara sutra.

These are as follows:-

- Collection of Apamarga plant is very difficult because it is a seasonal plant available in winter and rainy season.
- It is a small plant and it is very difficult to collect the required amount though it is time taking process

Purpose of my study is making of Tankan kshar is comparatively easy than making of Apamarag kshar and Tanakan is also useful in healing of wound and as the Kshar has also curetting and healing property which is useful in the fistulous tract. So time required for making ksharsutra is reduced it is needed for now a day and availability of tankan kshar is easy in market.

Hence this topic “A comparative study of the efficacy of *Tankana Ksharsutra* and *Apamarga Ksharsutra* in *Bhagandara* with special reference to *Fistula in-Ano*.”

## MATERIALS AND METHODS

### MATERIALS:

1. Ksharsutra prepared using Tankan Kshar.
2. Ksharsutra prepared using Apamarga kshar

Above both Kharsutra made as per the standard of Late Dr.P.J Deshpande sir (at, faculty of Ayurveda I.M.S.B.H.U.varansi) and C.C.R.A.S.

### METHODS:

This was prospective, randomized control clinical trial.They were randomly divided into two groups

for further study. The selected patients will be divided in 2 groups and after probing ksharsutra is ligated in fistula track on 3 day.

**Trial Group** (n=30) *Tankan ksharsutra* will be done as standard method up to 8 weeks.

**Control group** (n=30) *Apamarga ksharsutra* will be done in fistula tract up to 8 weeks

### Trial Group:

In this group all 30 patients had been treated with application of Ksharsutra made from *Tankan*.

**Table 1** Trial Group

Sr.No.	Ingredient	Coating
1)	Snuhi ksheer	11
2)	Snuni ksheer + Tankan kshar	7
3)	Snuni ksheer + Haridra	3

### Control group:

In this group all the 30 patients had been treated with the application of Ksharsutra made from *Apamarga*.

**Table 2** Control group

Sr.No.	Ingredient	Coating
1)	Snuhi ksheer	11
2)	Snuni ksheer + Apamarga kshar	7
3)	Snuni ksheer + Haridra	3

### INCLUSIVE CRITERIA:

1. Low level *Fistula in-Ano* with one/two external openings. Track length below 8 cm .
2. Patient of either sex will be selected randomly for the study.
3. Patient of age group between 18-60 year.

### B) EXCLUSION CRITERIA:-

1. Carcinoma of rectum.
2. Pregnancy
3. Multiple *Fistula in-Ano* more than two openings.

## ORIGINAL RESEARCH ARTICLE

4. Patient suffering from any systemic disease e.g. uncontrolled HTN, DM, TB, CVS, HIV +ve etc.
5. Patients having other perianal /Rectal diseases

### DISCUSSION

Anal fistula represents important aspects of colorectal practice, being a distressing condition for the patients and sometimes for surgeon. From ancient time Sushruta explained Bhagandara in “Astamahagad” also called as tremendous painful disease (xÉuÉÉiîÉç Mü ,iÉqÉç ùÉMüÉUç). So it seems that fistula is difficult to treat and chronic disease.

These days most surgeons use fistulectomy treatment for Fistula in-Ano, but postoperative pain, wound, pain during the daily dressing, disturbance in daily schedule is very important think for the treatment of Fistula in-Ano

In the present study “A comparative study of the efficacy of *Tankana ksharsutra* and *Apamarga ksharsutra* in *Bhagandara* with special reference to Fistula in-Ano” 60 patients having Fistula in-Ano are studied in two groups by allocating them in two group randomly.

#### Discussion on selection on disease:

It was observed that no. of patients having discharge through parianal region i.e. Fistula in-Ano increases second to haemorrhoid attending in OPD of Shalyatantra, Government Ayurved College, Nanded, Maharashtra in shalya department. In day to day practice Fistula in-Ano

is second to haemorrhoids in importance among all anorectal abnormalities. Most of the patients of Fistula in-Ano has fear from recurrence and come for ksharsutra. Apamarga Ksharsutra is widely accepted and proved also for Fistula in-Ano. Now a day we always deals with time consuming and cost effective, so ksharsutra made from Tankan is making in place of Apamarga.

#### Discussion on treatment of disease:

As per the proctologist concerned, Fistula in-Ano occurred from criptoglandular abscess mostly. Abscesses are thought to begin as an infection in the anal glands spreading into adjacent space and resulting Fistula in-Ano. Fistula arising from the glands of anal crepts is the most common form of anoperineal sepsis. Now a days combination therapy i.e. fistulectomy and Ksharsutra for Fistula in-Ano. From ancient time Charak also explained the Ksharsutra in Bhagandara in Chikista stan chapter “Shotha”, but not explaining on Bhagandara.

Acharya Sushruta proper explained about the Bhagandara and making of Ksharsutra. Likewise Ksharsutra, Acharya Susruta also explaining panchakarma, varti used in fistula tract, and Kshar tail. etc. The ksharsutra is medicated from snuhi latex and kshar and haridra which is sterilizes by UV radiation make sterile and working as a cutting, curetting, draining and cleaning of fistula tract thus inducing healing by fresh and healthy granulation tissue.

#### Discussion on drug:

As the Rastarangini and Rajnighantu explained about the trikshar which concerned with Tankan, **January 10<sup>th</sup> 2022** Volume 18, Issue 1 **Page 79**

## ORIGINAL RESEARCH ARTICLE

Yavkshar, and Sarjikshar. The standard Ksharsutra made from Apamarga, in place of Apamarga, Tankan is preferred by me, because in Rastarangini Tankan is used on Vividvrannashanam. As the availability and process of making kshar is easy than Apamarga kshar. In 1995 study done on Fistula in-Ano with ksharsutra made from *Tanka*. Comparative of this study gives idea about *Tankana* Ksharsutra is really effective or not than Apamarga Ksharsutra.

### Mode of action of drug:

The pharmacological property of Tankan in Rastarangini is *katu ras*, *katu vipaka*, *ushana*, *ruksha* and *sarak*. According to Ayurveda drug performing their action through dravya, guna, rasa, virya, vipaka.

Therefore probable mode of action of Tankan is as follow:

**Katu rasa:** As per Charak sutra katu rasa helps in reducing the discharge (“snehaswedkledmalanupahanti”), varanaavasadayati, mansvilikhati (cutting), sleshman shamayati (reducing kapha). So it is useful in wound and Fistula in-Ano (cha.su.26/42/4)

**Usnha guna:** It reduces the discharge and because of ushna properties it dries the kapha.

**Katu vipaka:** It expelling the vitiated kapha and vatdosha.

**Ruksha guna:** It dried the kapha so reducing the discharge

In rastarangini explained about vividvrannashanam.

**Modern view of drug:** In Eusol solution (Edinburgh University solution), Boric acid is a constituent and helps in bactericidal and reducing the slough (agranulation tissue), so helps in healing wound.

### The characteristic feature observed in relation to the statistical analysis of observation parameter:

#### 1. Length:

The mean time required for complete cutting of 1 cm of fistulous tract was found is 8.75 days in trials group (tankan ksharsutra) and that was 10.5 days (Apamarga ksharsutra) in control group.

The mean time required for complete healing of 1 cm of fistulous tract was found is 11.54 days in trials group (tankan ksharsutra) and 12.62 days in control group (Apamarga ksharsutra).

By the application of paired’ test is applied to trials and control groups, it was found that both groups are statistically significant and by a applying the unpaired’ test on both the group is statistically significant. It was suggested that Tankan ksharsutra has good effect for cutting of length of the tract.

#### 2. Discharge:

From statistical analysis by applying the chi square test,  $p > 0.05$  it was statistically insignificant. Statistically both the group having effective in reducing the discharge, but after treatment (21.24%) patients having discharge in trial group and (60%) patients having discharge in control group .From this we says that trial group having more effective in reducing the discharge than control group.

## ORIGINAL RESEARCH ARTICLE

As the discharge is directly proportional to healing, and Tankan is “cledmalanupahanti” and boric acid in that also help for antiseptic and reducing the slough (agranulation), and helping for granulation. As the granulation increase discharge is reduced, help for healing, as we already tell about for cutting rate is good for tankan ksharsutra. Kshar powder is excessive hygroscopic which catches moisture.

*Haridra* can promote healing process as well as it acts as antiseptic and antihistaminic property.

### 3. Pain:

From statistical analysis it was found that trial group was good effective in reducing the pain by applying the non-parametric test,  $p < 0.05$  so it was statistically significant.

As the Tankan is good property for reducing the discharge, as the discharge is reduced there is granulation increase and also help for reducing the pain. If the discharge is profuse then a granulation may cause the itching and pain. But Tankan ksharsutra is benefit over the discharge hence we suggested that Tankan ksharsutra is more benefit over than Apamarga Ksharsutra for reducing the pain.

## CONCLUSION

Fistula in Ano is disease in middle age most commonly in male than female also incidence of spicy regular diet is greater prone to disease. Also in this study observation on bowel habit is quite some relation to Fistula in-Ano. The sedentary

habit patients having the greater incidence of Fistula in-Ano than nonsedentary work. The rate of cutting and rate of healing of fistulous tract is more in *Tankan* Ksharsutra than Apamarga Ksharsutra. This clearly suggests that duration of treatment by using Tankan Ksharsutra is less than using Apamarga Ksharsutra in Fistula in-Ano (Bhangandara). Hence it was found that *Tanakan* ksharsutra is benefit for Bhangandara than Apamarga kshasutra.

## ORIGINAL RESEARCH ARTICLE

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