

COMPARATIVE STUDY OF APAMARGA KSHARSUTRA AND PALASH KSHARSUTRA IN THE MANAGEMENT OF BHAGANDARA VIS- A- VIS FISTULA IN ANO

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Published online: May, 2018

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ABSTRACT

Apamarga ksharsutra has been considered a classic and usually goes unequaled but it carries certain disadvantages like cost, seasonal availability and a troublesome collection process. To overcome these disadvantages, an approach involving preparation of *ksharsutra* using different combinations of medicaments is essential. The present paper will dwell upon the evaluation and comparison of the efficacy of *Apamarg Ksharsutra & Palash ksharsutra* in the management of patients with Fistula-in-ano. A total of 30 patients were randomized into two groups where the *Apamarga* and *Palasha-kshara sutra* was used in first and second group respectively. Assessment was done on objective and subjective parameter like Unit Cutting Time, pain, discharge etc. There was not much significant difference between the UCT of two groups whereas group B showed statistically better results in case of pain and discharge as compared to group A. The study concluded that *Palash Kshara sutra* can be effectively used as an alternative to *Apamarga kshara sutra*.

Keywords: *Bhagandara, Apamarg, Palash, Kshara sutra, Fistula in Ano.*

INTRODUCTION

Bhagandara or anal fistulae although a benign anorectal condition but negatively influences a patient's quality of life by causing pain, embarrassment, and in severe cases, frank sepsis. Despite its long history and prevalence, anal fistula management is one of the most challenging topics in

anorectal surgery today. The word "*Bhagandara*" literally means "*Darana*" around *Guda, Yoni* and *Vasti*. At first it presents as a *Pidika* around *Guda* and when it bursts out, it is called as "*Bhagandara*"¹. Because of its challenging nature and associated complications it has been considered under *Ashta*

Mahagadas (Eight grave disorders) by *Acharya Sushruta*² in *Ayurvedic* literature. Similarly the modern science today defines it as an abnormal communication between two epithelialized surfaces; more specifically, between the anorectal canal and perianal skin³. The true prevalence of fistula in ano is unknown. In India, anal fistula constitutes 1.6% of all surgical admissions with chances of recurrence 0.7 to 26.5% & incidence of anal incontinence 5 to 40%⁴. Most of the fistulae develop after rupture or inadequate drainage of pyogenic anorectal abscess following crypto glandular infections⁵. It is responsible for causing almost 90% of all anal fistulas. *Bhagandara* (Fistula in ano) has been considered second only to hemorrhoids in importance and sadly its treatment has long puzzled the medical fraternity. The *kshara sutra* therapy is a unique method of drug delivery, most suitable for healing the fistulous track as it offers an effective, ambulatory and safe alternative treatment. The CCRAS and ICMR has also validated this unique and effective approach^{6,7}. The standard *Apamarg kshara sutra* is prepared by repeated coatings of *Snuhi Ksheera*, *Apamarga Kshara* and *Haridra churna*. But some problems are faced during the collection and preparation of *Apamarg Kshara sutra* as it is a seasonal plant available only in winter and rainy season, Moreover much enormous quantity of the plant is required which in turn seeks great time. Also it is quite difficult to solely depend upon *Apamarga* only because of its limited availability globally. India is a vast country, with varied flora and there is also a need for search of the alternate plant sources which may give better results to develop an alternative to *Apamarga kshara sutra*. This study is an attempt to evaluate the efficacy of *Palasha kshara sutra* in the management of *Bhagandara* w.s.r to fistula-in-ano and find out a treatment which is more economical, easily available and moreover minimizes the clinical problems encountered by patients during *ksharsutra* therapy.

OBJECTIVES:

1. To evaluate the efficacy of *Palash Ksharsutra* in the Management of *Bhagandara*.

2. To assess the acceptability of *Palash Ksharsutra* in the Management of *Bhagandara*.
3. To compare the effect of *Palash Ksharsutra* with *Apamarga Ksharsutra* in the management of *Bhagandara*.

METHODOLOGY

1. Trial type

Randomized trial

2. Sample size:

Total 30 patients (15 in each Group) were registered fulfilling all the inclusion criteria.

3. Study design:

The clinical study was planned on *Apamarga* and *Palash-kshara sutra* and a clinical trial was done in Dept. of P.G. Studies in *Shalyatantra*, Jammu Institute of *Ayurveda* and Research Hospital, Jammu. 30 patients were randomly selected from the OPD and IPD of department of *Shalya Tantra* J.I.A.R and divided in two Groups

- Control/ Group A: 15 patients of *Bhagandara* were selected and treated with *Apamarga Ksharsutra*.
- Treated/Group B: 15 patients of *Bhagandara* were selected and treated with *Palash Ksharsutra*.

4 Criteria for selection of patients

A. Inclusion criteria:

- Age group of 25-70 years.
- Patients of Both the sexes
- Operative recurrences
- Patients with signs and symptoms as documented in classics.

B. Exclusion criteria:

- Post operative incontinence of stool.
- Secondary fistula due to Cohn's disease, Carcinoma of Rectum, Ulcerative colitis.
- Tuberculosis of the hip joint or spine as the prognosis is not good.
- Pregnancy.

5 Materials Required:

- *Apamarga* and *Palash Ksharsutra*
- Normal saline, cotton swabs, gauge pieces, pads, sterile surgical gloves, feeding tube, disposable

syringes, adhesive tapes and artery forceps and other essential equipment/ instruments.

Method of preparation of *kshara sutra*

The method of preparation of *Palash-kshara sutra* was same as standard *Apamarga Kshara sutra* except the *Apamarg Kshara* has been replaced by *Palash Kshara*. The method includes 11 coatings of *Snuhi Ksheera* alone, 7 coating of *Snuhi Ksheera* and *Kshara* prepared by *Palash* and *Apamarga* respectively on *Palash* and *Apamarga Ksharsutra* and finally 3 coating of *Snuhi ksheera* and *Haridra powder*. Total 21 coatings were applied on every *Ksharsutra*. The prepared *Ksharsutra* were placed for sterilization in *Ksharsutra* chamber and stored in glass test tubes for later use.

Preoperative

After selection the patients were undergone through following course of action.

• Investigations

Routine hematological, biochemical, urine and stool examinations were done to rule out the pathological conditions mentioned above.

- A written consent was taken from the patients before the procedure.

Operative procedure:

The patients were kept in lithotomic position and the perianal region was cleaned with *triphalakwatha* and draping was done after local anesthesia infiltration. After assuring the patient, lubricated indexed finger gloved with Xylocaine 2% jelly was introduced into the anus. Then suitable selected probe was passed through the external opening of fistula. The tip of the probe was guided by the tip of finger in anal canal and its tip was finally directed to come out through the internal opening in anal canal. The *kshara sutra* was then threaded into the eye of the probe. Thereafter the probe was pulled out through the anal orifice to leave behind the sutra into fistulous track. Both the ends of the *kshara sutra* were tied together loosely outside anal canal. Lastly, a gauze piece soaked in *jatyadi taila* was applied and T bandaging was done. The Patient was shifted to postoperative ward. The same procedure was adopted for both the groups.

The *kshara sutra* threading procedure has been shown in the figures:



Figure 1: Probing



Figure 2: Ligation



Figure 3: After Ligation

Duration of treatment

The *kshara sutra* was changed by rail road technique⁸ every 8th day, the length of the track was measured at each sitting and recorded on a performa. The principle behind changing the *Kshara sutra* after 7 days can be explained hypothetically that *Shareera* is composed of *sapta dhatu*s and it takes

24 hours for cutting each *dhatu*. The procedure was continued till the track cut through completely.

Follow-up period

Follow-up was done once in every 30 days for 3 months after the completion of treatment. For each follow-up visit, the patients were examined for any recurrence of disease or any associated lesion of the anorectal region.

Assessment criteria:

Subjective parameters:

- Pain
- Discharge
- Swelling

- Itching

These parameters were assessed by scoring patterns.

Objective parameters:

- Unit cutting time (U.C.T.)

Statistical Design

Comparative Assessment

S.no	Parameter	% relief in Group A	% relief in Group B	Mann –Whitney U test	P value	Remarks
1	Pain	31.03	66.7	177	.003	Highly Significant
2	Discharge	83.88	94.42	157	.003	Highly Significant
3	U.C.T	7.64 days /cm	7.46 days/cm	NA	.592	Not Significant

RESULTS AND DISCUSSION

The description of *Bhagandara pidika* clearly shows that *Acharyas* had an exact idea regarding the occurrence of a fistulous abscess and also knew that not all abscesses in this region lead to fistula in ano⁹. In this present study total 30 cases were taken & divided into 2 groups; The First group (Group A) or the control group, the second group (Group B) or the treated group. In Group A, *Apamarga kshara sutra* (*Snuhi ksheera*, *Apamarga kshara* and *Haridra churna*) was used and in Group B, *Palash-kshara sutra* (*Snuhi ksheera*, *Palash kshara* and *Haridra churna*) was used. 15 cases were included in each group, who were treated on the line of previous works¹⁰.

The disease observations were made on different parameters of study like age group, sex incidence, chronicity of disease, different types of *prakriti*, different types of *Bhagandara*, recurrent cases after surgical operations, number of fistulous openings and quadrants.

Clinical findings like pain, local inflammatory changes, discharge, etc. were observed during primary and successive application of *Kshara sutra*. The severity of pain, discharge and unit cutting time (in days/cm) were analyzed.

After *Kshara sutra* application the patients were assessed for relief in signs and symptoms. The statistical analysis revealed that group A showed signifi-

cant results in pain and discharge whereas highly significant results were observed in group B for the same. The analysis further revealed that the average unit cutting time in case of both the groups showed no significant difference. The overall effect of therapy showed significant improvement in different parameters

Probable mode of action of Action of Trial Drugs

The trial drug *Palash* showed significant results in reducing pain and pus discharge in the patients of *Bhagandara*. As per *Ayurvedic* literature, *Palash* has *Katu*, *Tikta*, *Kashaya Rasa*, *Katu Vipak* and *Ushna Virya*. It possesses *Lekhana*, *Bhedana* and *krimighna* properties¹¹. By virtue of above mentioned properties *Palash* effectively pacifies the vitiated *Kapha* and *vata Dosha* and hence alleviates their sign and symptoms respectively¹². The phytochemical studies have confirmed that *Palash* reduces inflammation, itching and pus discharge because of its Antimicrobial and Wound healing activity as it contains butrin, Isobutrin, Butin, Plasitrin and butein¹³. It also has an astringent action which aids in wound healing. Further studies have revealed that the bark of *palash* possess an anti helminthic property because of ethanolic and aqueous extracts¹⁴.

CONCLUSION

Following conclusions were drawn from the study entitled “*A Comparative Study of Apamarg*

Ksharsutra & Palash Ksharsutra in the Management of Bhagandra Vis-À-Vis Fistula-In-Ano”

1. Collection problems were trespassed as the collection process of *Palash* is much easy as compared to *Apamarga* since *palash* is widely and easy available throughout the year.
2. The *Palash kshara sutra* is many economical, minimal problems while preparation and application of *Kshara sutra* therapy as compared to *Apamarga kshara sutra*.
3. Wound healing after cut through was faster in treated group (1-2 weeks) as compared to (2-3 weeks) in control group.
4. No recurrences of cases were reported during the follow up.

So, it can be concluded on the basis of these outcomes, *Palasha-kshara sutra* can be considered as a better alternative in place of *Apamarga kshara sutra*.

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Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Mahajan Roshi et al: Comparative Study Of Apamarga Ksharsutra And Palash Ksharsutra In The Management Of Bhagandara Vis- A- Vis Fistula In Ano International Ayurvedic Medical Journal {online} 2018 {cited May, 2018} Available from: http://www.iamj.in/posts/images/upload/1131_1135.pdf