



Case Study

MANAGEMENT OF RECURRENT FISTULA-IN-ANO (*BHAGANDARA*) EXTENDING UPTO THIGH, BY PARTIAL FISTULECTOMY AND *KSHARASUTRA* APPLICATION: A CASE REPORT

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<p>Article info</p> <p>Article History: Received: 20-10-2022 Revised: 15-11-2022 Accepted: 06-12-2022</p> <p>KEYWORDS: <i>Bhagandara,</i> <i>Ksharasutra,</i> <i>Fistula-in-ano,</i> <i>Fistulectomy,</i> <i>Kshara.</i></p>	<p>ABSTRACT</p> <p>In the present modern day's world, anorectal disorders are increasing in number due to sedentary lifestyle. They cause great discomfort and make one's life miserable. Among these fistula in ano is most common. It is challenging to treat due to its recurrent nature. Fistula-in-ano is an inflammatory tract that is lined by unhealthy granulation tissue and has two openings, an external opening present in perianal skin and an internal opening in the anal canal or rectum. Fistula in ano is correlated with <i>Bhagandara</i> in Ayurveda. <i>Acharya Sushruta</i> has mentioned it among <i>Ashta Mahagada</i> and explained five types of <i>Bhagandara</i>. Many treatment modalities have been given for the treatment of fistula in ano, <i>Ksharasutra</i> application is one of them. It is a minimally invasive para-surgical procedure and induces both mechanical as well as chemical cutting and healing of the fistulous tract. This technique has a high success rate but it is time-consuming and causes minimal complication. A 73 years old male patient came to RGGPG Ayurvedic College and Hospital, with a complaint of pain and pus discharge from his left thigh for 7-8 years, he has been diagnosed with a case of recurrent fistula in ano. The patient was treated with partial fistulectomy along with <i>Ksharasutra</i> application and recovered well with complete excision of the tract.</p>
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INTRODUCTION

The fistula-in-ano is one of the most common diseases of ano-rectal region and it is a tract lined by granulation tissue which connects perianal skin superficially to anal canal, anorectum or rectum deeply^[1]. Fistula in ano can be cryptoglandular (90%) and non cryptoglandular (10%)^[2]. The main cause known for fistula in ano is crypto-glandular infection of anal crypts and from the perianal abscess in the intersphincteric space of anal canal. Several other disorders must be considered which may cause fistula-in-ano such as Crohn's disease, tuberculosis, lymphogranuloma venereum, and actinomycosis^[3]. Though the disease is not life threatening but it produces inconvenience in routine life due to pain and discomfort.

In Ayurveda, *Bhagandara* can be correlated with fistula-in-ano due to similar clinical features. *Acharya Sushruta* has mentioned *Bhagandara* in *Ashta mahagada*^[4] which are difficult to cure and also explained five types of *Bhagandara* in detail in *Sushruta Nidan sathan* chapter 4^[5].

The word *Bhagandara* is composed of two words: *Bhaga* and *Darana* ^[6]. *Bhaga* means a region around the anus which extends from anus to the genitalia. *Darana* means to tear or destroy. Therefore, the *Pidika* (abscess) which develops in this region and leads to the *Bhagandara* (fistula), is known as "*Bhagandara Pidika*"^[7]. A disease/sinus that tears or damages the area around genitalia, urinary bladder and anus which is known as *Bhagandara*. Often, it results from bursting of *Bhagandara Pidika* or an abscess in this region. Fistula is characterized by single or multiple opening around the perianal region which is associated with pus discharge and pain. There are many treatment modalities given for its treatment. Fistulectomy, fistulotomy, seton application, ligation of intersphincteric fistula tract, fibrin glue, advancement flaps, Video Assisted Anal fistula treatment (VAAFT) also included in modern surgical management^[8]. In

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Ayurveda, *Bhagandara* is considered as *Chedya* (excision) *Vyadhi*, but in high anal fistula, excision of whole fistulous track can cause faecal incontinence and hamper quality of life. *Kshara karma* has become very useful and recently modified method of treatment for selected anorectal diseases mainly in *Bhagandara*. Complete and detailed descriptions about *Ksharasutra* preparation is not available in *Sushruta Samhita*. The present form of *Ksharasutra* therapy was initiated by Dr. P.S Shankaran and subsequently established by Prof. P.J Deshpande through many researches and development in department of *Shalya Tantra* at Banaras Hindu University. *Ksharasutra* therapy is mentioned in classics for *Nadivrana chikitsa*, *Bhagandara* and *Arbuda*. *Acharya Sushruta* has described the preparation of *Kshara* in detail and application of *Ksharasutra* in *Nadi Varana*. *Acharya Charaka* has also indicated its application in *Bhagandara* in *Shotha chikitsa*. *Ksharasutra* is a medicated thread which is coated with *Apamarga Kshara* (*Achyranthus aspera*), *Snuhi ksheera* (*Euphorbia Nerriifolia*) and *Haridra* (*Curcuma Longa*). *Ksharasutra* has antimicrobial and phytochemical cauterization properties which promotes wound healing. The pH of *Ksharasutra* is alkaline in nature, it scrapes all unhealthy granulation lining the fistulous tract.

Case Report

A 73 year old male patient came to OPD of *Shalya Tantra*, R.G.G.P.G Ayurvedic College and Hospital, Paprola Himachal Pradesh, with chief complaints of pain and pus discharge from left thigh region since 7- 8 years. Patient was known case of hypertension and diabetes from last 3-4 years and was on medication for the same. On further inquiry, patient told he underwent knife for the same but didn't get relief. On local examination there was a discharging sinus in the left upper thigh region and scars of previous incisions. On digital rectal examination, there was marked induration present at the left side of the perianal region and internal opening was felt at 6 o'clock position, sphincter tone was normal and no

evidence of rectal growth was found. Probing was done through the opening of discharging sinus, which coursed superiorly to the upper thigh region. Patient was advised for MRI study at the previous hospital which revealed a fistulous tract arising from the left perianal region at 5 o'clock position and extending to the left upper thigh. The length of the tract was approximately 24cm. It was diagnosed as case of recurrent fistula- in -ano (extending upto left thigh). All hematological and biochemical examinations were done before the planning of surgery and were in normal limits.

All preoperative preparations were done and under spinal anesthesia, the patient underwent partial fistulectomy in which 9cm of the fistulous tract was excised out and in the rest tract seton applied through internal opening at 6 o'clock position. In post-operative period, broad spectrum antibiotics, analgesic along with *Triphala guggulu*, *Triphala churan* were advised for 7 days. Patient was advised to take sitz bath with lukewarm water and daily dressing of wound was done with *Jatyadai tail* and betadine solution for 15 days which reduced perianal inflammation and thereafter seton was replaced by *Ksharasutra*. *Ksharasutra* was changed by Rail-Road technique, loosened and tightened weekly according to wound condition till complete cutting of the fistulous tract.

Observation

Weekly assessment was done for postoperative pain, discharge and cutting rate of fistulous tract. The initial length of the track was 24cm of which 15cm got cut through with the help of *Ksharasutra* in 5 months and 4 days. Unit cutting length of tract was 0.75cm per week. Total period of treatment was 6 months. No sign and symptoms of recurrence was observed and sphincter tone was within normal limits during this period. After cut through of the track patient was followed up for 1month, weekly. No signs and symptoms of recurrence and incontinence were observed during the follow up period.



Fig.1.a and Fig.1.b – On the first day of consultation: probing done at 3 O' clock



Fig.2 During Probing in the Operation Theatre Fig. 3 Wound after 8 weeks of *Ksharasutra* application



Fig.4.Wound at the time of cut through Fig.5. Healed wound after 21 days of cut through

DISCUSSION

The treatment of fistula in ano is always challenging, no definitive management is available for this. Surgery is a choice of treatment. Partial fistulectomy along with *Ksharasutra* application helped in faster healing of the tract and prevent a recurrence. The *Ksharasutra* is a well known medicated surgical ligature used in various surgical disorders especially in diseases of ano-rectal region. *Ksharasutra* has high success rate and least recurrence rate in fistula-in-ano, even faecal incontinence and anal stricture are also not seen. It cuts the tract by mechanical pressure and phyto-chemical cauterization and provides a healthy environment for wound healing. Partial fistulectomy helps in proper drainage of pus and reduces the duration of treatment. The contents of *Kshara sutra* are *Snuhi ksheera*, *Aparamarga kshara* and *Haridra powder* [9]. *Snuhi Ksheera* has *Katu rasa*, *Tikta rasa*, *Ushna virya* as well as *Shodhana* and *Ropana* properties. It reduces the inflammation, dissolves the tissue at the base of swelling and improves the process of healing. *Apamarga kshara* has the *Chhedana*, *Bhedana*, *Lekhana* and *Tridoshaghna* properties. It cauterizes the tissue mass and debrides the base of swelling by its *Ksharana guna*. *Haridra* has the *Rakta Shodhana*, *Twaka Doshahara*, *Shothahara*, *Vatahara* and *Vrana Ropana* properties^[10]. *Ksharasutra* has both anti-inflammatory and anti-microbial properties and due to its alkaline nature it helps in cutting and

healing. *Ksharasutra* helps not only to prevent recurrence but also maintain the integrity of the sphincters by cutting and fibrosing muscles. It is also important to assess the efficacy of *Ksharasutra* by unit cutting time. The term Unit Cutting Time or UCT represent the number of days required to cut 1cm. This is calculated by dividing the total number of days taken by a fistula to heal by initial length of tract. In *Ksharasutra* therapy, cutting and healing go simultaneously. Whenever healing is delayed, cutting is also suspended.

CONCLUSION

The recurrent fistula in ano is difficult and complicated to manage and hence takes time to heal completely. Partial fistulectomy and *Ksharasutra* application are very effective in the treatment of recurrent fistula in ano. These are minimally invasive techniques and have a fast recovery rate, there are minimum chances of incontinence and one's quality of life does not get hampered. So we can conclude that in recurrent fistula in ano, the *Ksharasutra* application is a better option due to its minimum complications, fewer chances of reoccurrence with the less post-operative treatment required, and also patient can resume normal activities earlier.

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Cite this article as:

Sheetal Rana, Gaurav Parmar, Anil Dutt. Management of Recurrent Fistula-in-Ano (Bhagandara) Extending upto Thigh, by Partial Fistulectomy and Ksharasutra Application: A Case Report. International Journal of Ayurveda and Pharma Research. 2022;10(11):58-61.

<https://doi.org/10.47070/ijapr.v10i11.2562>

Source of support: Nil, Conflict of interest: None Declared

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