

KSHARSUTRA THERAPY IN NADIVRANA W.S.R. TO PILONIDAL SINUS**Shital Akshay Bhole**

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ABSTRACT

A pilonidal sinus is of infective origin and occurs in sacral region between buttocks, umbilicus, axilla,..etc and can cause discomfort, embarrassment to the patient. The most commonly used surgical treatment for this disorder includes excision and primary closure and excision with reconstructive flap. However the risk of recurrence or of developing infection in the wound after operative is high. Also, the patient requires longer hospitalization, and the procedure is expensive. There is a similarity between pilonidal sinus and *shalyaj Nadivrana*. Sushruta has described a minimally invasive para-surgical treatment by Ksharsutra procedure for management of *Nadivrana* (Pilonidal sinus). The trial of this treatment in pilonidal sinus not only minimizes the complications and recurrence but also reduces hospital stay and it is cost effective too.

Keywords: pilonidal, axilla, buttocks, *shalyaj Nadivrana*.

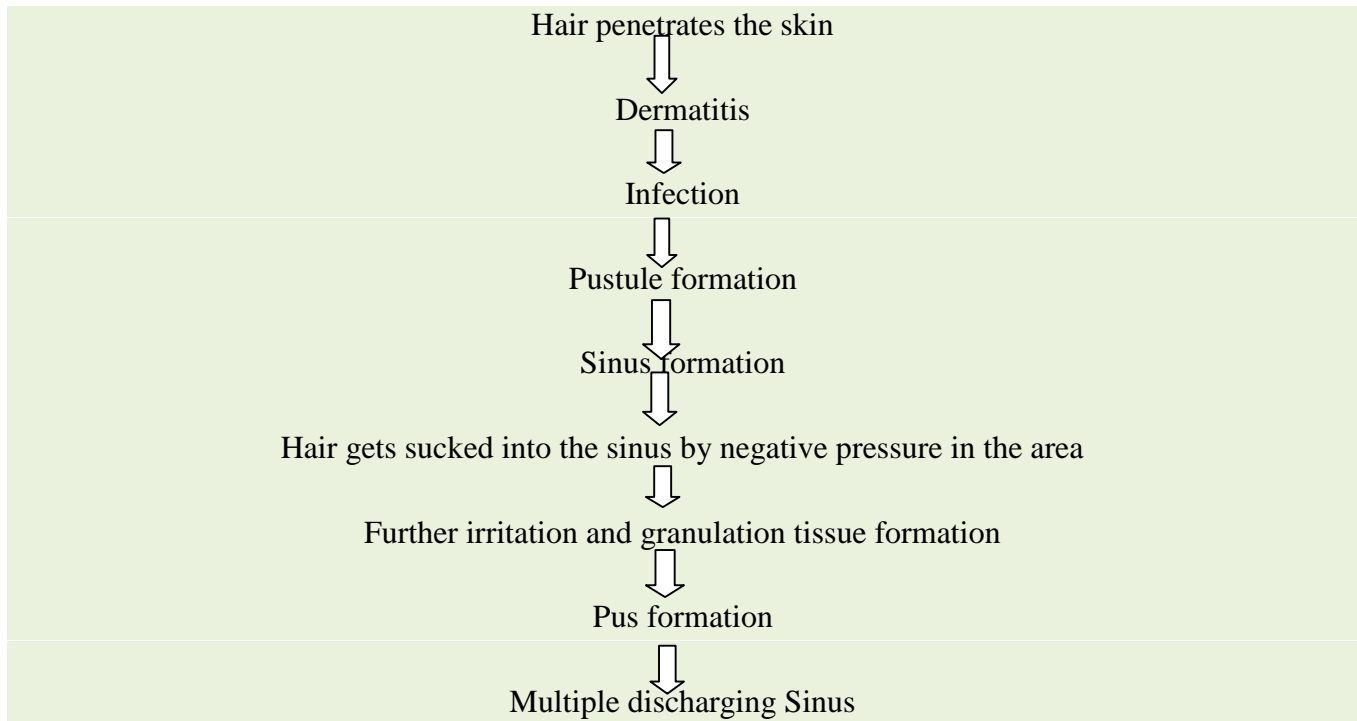
INTRODUCTION

A pilonidal sinus is of infective origin and occurs in sacral region between buttocks, umbilicus, axilla,..etc. Commonest site is inner buttock region; it is epithelial lined track, situated short distance behind the anus, containing hairs and unhealthy granulation tissue. It is due do penetration of hair through the skin into subcutaneous tissue. It forms granuloma or unhealthy granulation tissue in deeper plan. Type of hair, force of hair insertion in unhealthy granulation tissue, vulnerability of skin is the three factors that cause pilonidal sinus. Cut hair from above descent into cleft and stay there to get buried into pilonidal sinus. It is common in

20 to 30 age groups. It is common in males and mostly affects hairy mens.¹

During the Second World War the condition was common in jeep drivers so know as “Jeep disease”. The most commonly used therapy is surgery including wide excision and healed by secondary intention. However, post operative recurrence following surgery is high. Leading to frequent and time consuming wound care. Hence there is a need to evaluate the alternative and innovative technique to cure this disease. So as to minimise the recurrence, make it cost effective, and minimal hospitalization.

PATHOLOGY²



AYURVED AND PILONIDAL SINUS

In Ayurved texts, pilonidal sinus comes under *Nadivrana* (*shalya nimittyaj*) caused by *Shalya* (i.e. foreign body). Sushrut Samhita describes a condition *Shalyaj nadivrana*. Which is very much similar to pilonidal sinus? *Shalyaj Nadivrana* is a track due to presence of pus, unhealthy granulation tissue and hairs, etc. inside left unnoticed. Acharya Sushruta has described a minimal invasive procedure to cure *Nadivrana* (Pilonidal sinus). Sushruta has described that hair can be a root cause for formation of sinus, and also mentioned various methods for management. *Shalyaj Nadivrana* should be treated by cut open the sinus track by using *Ksharsutra*, and this sinus should be probed with the help of probe, then insert the needle having *ksharsutra* till the end of sinus is reached, the needle is then lifted up, the end of the thread is pulled out and knot tied and extraction of foreign body, like tufts of hair with the help of small curved artery forceps. After considering the strength of *ksharsutra*, a new *Ksharsutra* should be inserted to

replace previous one during follow up after every week. We use rail road technique till the whole length of the track is cut.³ *Varti* or medicinal wicks are also useful in healing *Nadivrana* or pilonidal sinus.⁴

INTRODUCTION OF KSHAR AND KSHARSUTRA

Kshar is most important among all *shashtra* (sharp instruments) and *anushtra* (accessory instruments) as it does the function of excision, scraping, cutting, migrates all the *doshas*.⁵ The *ksharsutra* therapy is well known therapy of ayurved in various diseases, like Fistula in ano: its supremacy has been proved in all three dimensions. *Ksharsutra* therapy is simplified, sure, and safe.⁶

MATERIAL AND METHODS

Drugs Used

Many drugs have been advised by Sushruta and other Ayurvedic texts for the preparation of *Kshar*.

The important among them are – *Apamarge*, *Palash*, *Arka*, *gomutra* etc.⁷

Method of Preparation

According to the three types of *Kshar* are prepared on the basis of their strength.

1. Mild - *Mridu*,
2. Moderate - *Madhyama* and
3. Strong - *Tikshna* .

The general procedure can be narrated as -

1)'*Mridu*' *Bha m kara a* (conversion to ash) Adding to water (1:6 ratio), Filtration (21 times),

Distillation (boiling the *ksharajala* still all water evaporates), collection (process called lixiviation)

2)'*Madhyama*' Here the procedure is same some among them are extra powders of *Katasharkara* *Bhasmasharkara*, *Ksheerapaka*, *Shankhanabhi*(gravels of lime and ash, oyster-shell & core of conch-shell) are added to the boiling *ksharajala* before distilling it.

3) '*Tikshna*' Similar to *madhyama kshara* here added is the powders of drugs like *Chitraka*, *danti*, *vacha* etc. in place of the lime stones.⁸

"**Kshar Sutra**" is a sanskrit phrase in which "**Kshar**" refers to anything that is corrosive or caustic; while "**Sutra**" means a thread. It is described by many Ayurvedic texts which originated and flourished in India. It is one among popular Ayurvedic treatment modality in the branch of

Shalyatantra followed by **Sushruta**.

PREPARATION OF KSHARSUTRA

HISTORY: Various ancient authors have provided various literatures about *ksharsutra*.

Sushruta has mentioned the use of *ksharsutra* in *nadivrana chikitsa*.

Charak has described in the chapter of *shotha-chikitsa* that *ksharsutra* should be used with other measures in the management of *bhagandara* (ch.su.chi.12/97).

chakradutta has first given the idea about the preparation and use of *ksharsutra*, but the use of *kshar* in preparation of this thread has not been

mentioned by him.

Later on in **Rasatarangini**- Sadanand Sharma has described the preparation and uses of *ksharsutra*.

Although he has not mentioned, the *apamarga* or any type of *kshar* in the preparation of this thread, yet he has described that 7 coatings of *haridra* powder should be done on thread, layered by *snuhilatex* i.e. *Snuhiksheer*. He further said that this thread can be used in the management of *Bhagandara*.⁹

Method of preparation

The standard *kshar sutra* is prepared by repeated coatings of *snuhiksheera* (latex of *Euphorbia Nerrifolia*) *apamargkshara* (ash of *Achyranthusaspera*) and *haridra* powder over a surgical linen thread no. 20. This thread is spread throughout lengthwise in hangers. Each thread on the hanger is then smeared with *snuhi* latex with the help of gauze piece soaked in the latex. This wet hanger is transferred in *ksharasutra* cabinet. The same process is repeated next day. Eleven such coatings with *snuhiksheera* alone should be accomplished.

The twelveth coating is done by first smearing the thread with *snuhiksheera* and in wet condition thread is passed through the *apamargkshar*. It is again transfer into the cabinet for drying. This process is repeated till seven coatings of *snuhiksheer* and *apamargkshara* are achieved.

The final three coatings are completed with *snuhiksheera* and fine powder of *Haridra* (termaric) in the same fashion. Thus twenty-one coatings over the thread are completed.^{10,11.}

MODE OF ACTION

Ksharsutra is now a popular treatment modality in India for the management of Sinus and fistula in ano. Many Clinical trials have done all over in different institutes to evaluate the action. Precisely the action of *Ksharsutra* is thought to be due to its cutting, healing and cleansing effect according to Ayurveda.

It can be suggested that, it allows the proper drainage of pus from then a sinus and fistula and works as a good chemical debriding agent that leads to a proper healing. On the other hand the cutting effect of thread incises the skin gradually without a surgical incision. Many studies confirm that it is more effective in the way of reducing hospital stay and lesser the chance infection. Researches suggest that it is having the action of Excision, Scrapping, Draining, Penetrating, Debridement, Sclerosing and Healing. It is Bactericidal and Bacteriostatic.¹²

DISCUSSION AND CONCLUSION

This minimally invasive procedure *Ksharsutra* has good potential in the management of Pilonidal sinus. It minimizes the rates of complication and recurrence and enables the patient to resume work and normal social activities as early as possible. It is an acceptable treatment to the patient in terms of cost of treatment, extent of discomfort, impact upon body image. Pilonidal sinus disease is a chronic and painful condition that can affect self-esteem, body image and personal relationships. Multiple studies have shown *Ksharsutra* therapy decreases both short-term and long-term recurrence of the condition and this treatment should be considered in every case. There is a need for further study into follow-up periods longer than five years, as recurrences are known to occur after this time period.

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