

## EFFICACY OF APAMARGA KSHAR SUTRA IN THE MANAGEMENT OF SHALYAJ NADI VRANA (PILONIDAL SINUS)

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### ABSTRACT

A Pilonidal sinus (*ShalyajNadiVrana*) occurs in the cleavage between the buttocks (natal cleft) and can cause discomfort, embarrassment and absence from work. It is more common in men than in women. The most commonly used surgical techniques for this disorder include wide excision and primary closure and excision with reconstructive flap. However, the risk of recurrence or of developing an infection of the wound after the operation is high. Also, the patient requires longer hospitalization, and the procedure is expensive. There is a similarity between *ShalyajNadiVrana* and Pilonidal sinus described in *Sushruta Samhita*. *Sushruta* has advocated a para-surgical treatment, viz., *Kshar Sutra* procedure for *nadivrana*. Hence this therapy was tried in Pilonidal sinus and is described in this case report. *Kshar Sutra* treatment not only minimizes complications but also enables the patient to resume work quicker and with less discomfort as well as reduced cost.

**Keywords:** *ShalyajNadiVrana, Sushruta Samhita, Kshar Sutra*

### INTRODUCTION

A Pilonidal sinus (*Nadivrana*) is a sinus tract which commonly contains hair. It occurs under the skin between the buttocks (the natal cleft) at a short distance above the anus. The sinus tract goes in a vertical direction between the buttocks. Most cases occur in young male adults. This is hardly seen in females. While sitting the buttocks move and hair broken off by friction and collect in the cleft. When the toilet paper is used hair entangled in faecal matter will also be swept into the cleft. Such loose hair travel down the intergluteal furrow to penetrate the soft and moistened skin at that region or enter the open mouth of a sudoriferous gland. After the initial entry dermatitis and inflammation start around the loose hair and once the sinus is formed, intermittent negative

pressure of the area may suck other loose hair into the pit.

This type of sinus is lined by stratified squamous epithelium. The sinus extends into the subcutaneous tissue. The tuft of hair is always seen within such sinus embedded in granulation tissue.

The most commonly used therapy is Z-plasty operation after wide excision of pilonidal sinus. This is done for better wound healing and good cosmetic result. However, postoperative recurrence following surgery is high, leading to frequent and time-consuming wound care. Recurrence is due to inadequate excision of the sinus or entry of hair to the scar of the skin. Hair growing into the healing wounds is probably the most common cause of recurrence of pilonidal sinus. Hence, there is a need to

evaluate the role of the techniques available in alternative systems of medicines. A case is selected and tried to manage this challenging disease through *Kshar sutra* so as to minimise the cost, hospital stay and to look for the acceptability of the procedure.

The '*Sushrut Samhita*', describes a condition '*ShalyajNadiVrana*' which is similar to 'Pilonidal sinus'. '*Shalyajnadivrana*' is a tract which is described to be due to presence of pus, fibrosed unhealthy tissue & hair etc. inside left unnoticed. *Sushruta* has advocated a para-surgical technique known as '*Kshar Sutra*' therapy for management of *Nadivrana*.

### CASE REPORT

A 35 year old male, came to the *Shalyatantra* O.P.D at Dr.SarvepalliRadhakrishnanRajasthan AyurvedUniversity, Hospital, Jodhpur with complaint of recurrent discharge from a boil over an operated site along with pain and discomfort in November 2014.

He gave a history of operation in Allopathic hospital for Pilonidal sinus performed in 2011. The disease re-occurred after 3 years in 2014 and this was confirmed by MRI. The patient was not willing for surgery again and requested Ayurvedic treatment. Hence, *KsharSutra* procedure was offered. Before planning treatment other etiologies like Tuberculosis, Pelvic inflammation causing abscess, HIV, diabetes mellitus, foreign body or trauma, cold abscess were ruled out.

After confirmation of the pilonidal sinus by MRI, the two external openings were excised under local anesthesia and the embedded hair follicles were removed [Figure 1]. The *Kshar Sutra* was tied covering the entire underlying tract for simultaneous cutting and healing [Figure 2]. The poloni-

dal sinus tract was cleaned by *Triphala* decoction. Appropriate dressing was done with the help of *Madhusarpi*(Honey+Cow ghee) under aseptic conditions. The patient was discharged on the 3<sup>rd</sup> day after the procedure.



**Figure 1**

External openings coinciding with natal cleft was excised under Local anaesthesia and embedded hair follicles were removed.



**Figure 2**

Ligation of *Kshar Sutra* in the underlying tract (sinus)

Patient was asked to visit DSRRAU hospital for dressing on alternate days. Sitz bath with *PanchavalkalKwath* was advocated before dressing. The *Kshar Sutra* was changed weekly for 3 sittings [Figure. 3]. To promote healing and reduce pain & inflammation oral antibiotics (*Gandhak-rasayana, Rasa manikya*), anti-inflammatory drugs (*Shigruguggulu, Triphalaguggulu*) and multi vitamins (*Shatavarichurna, Ashwagandhachurna, Amalakichurna*) were also prescribed.



**Figure 3**

Second changing of *Kshar Sutra* (after 7 days)

The tracks cut through and simultaneously healed by 4 weeks [Figure. 4]. However, it was observed that healing rate was slow compare to cutting rate and the patient was observed for recurrence.



**Figure 4**

Completely healed tract (after 21 days)

**Kshar Sutra** is a surgical linen thread coated with herbal Alkaline drugs like **ApamargaKshar** (Ash of *Achyranthusas-cera*), **Snuhi** (*Euphorbia nerifolia*) latex and **Haridra** (*Curcuma longa*) powder and **Mulethi** (*Glycyrrhizaglabra*) powder in a specific order. The **Kshar** applied on the thread are anti-inflammatory, anti-slough agents and in addition have properties of chemical curetting. The **Kshar Sutra** acts by “Herbal Chemical Cauterization”. The **Kshar sutra** by its antibiotic property, does not allow bacteria to multiply in its presence. The pH of **Kshar Sutra** was towards the alkaline side and therefore it did not allow pathogens to invade the sinus.

#### Discussion

The Para-surgical **Kshar Sutr**therapy has good potential in the management of Pilonidal sinus. It minimizes rates of complication and recurrence and enables the patient to resume work and daily routine within 3 to 5 days. This therapy is better than modern surgeries in terms of cost of treatment,

extent of discomfort and it's a day case procedure.

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