

MANAGEMENT OF PILONIDAL SINUS BY KSHARA SUTRA TREATMENT: A CASE STUDY

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ABSTRACT

Pilonidal sinus is a worldwide problem found commonly in young hirsute^[1] men. Pilonidal Sinus has become a challenge to most of the surgeons due to its recurrence. This is commonly found in drivers and in sedentary workers. Due to constant sitting there is exertion on post anal region where the pits pull the hair inside the body to cause pilonidal Sinus. The most commonly used surgical techniques for this disorder include excision and primary closure, excision with reconstructive flap. However the risk of recurrence of developing an infection of the wound after operation is high. Also the patient requires longer hospitalization and the procedure is expensive. There is a similarity between *Shalyaja Nadivrana* described in *Sushruta Samhitha* and Pilonidal sinus. *Sushruta* has advocated a minimally invasive para-surgical treatment viz, *Ksharasutra* procedure for *Nadi Vrana*.^[2] Hence this therapy was tried in Pilonidal sinus and described in this case report.

KEYWORD: Pilonidal sinus, *Shalyaja Nadivrana*, *Ksharasutra*.

INTRODUCTION

Pilonidal sinus is a sinus track which commonly contains hair. It occurs under the skin between the buttocks (the natal cleft) at a short distance above the anus. The sinus track goes in a vertical direction between the buttocks. Most cases occur in young male adults. The origin of Pilonidal disease^[3] is not fully understood, although hormonal imbalance, presence of hair, friction and infection are often implicated. The most commonly used therapy is surgery.^[4] including wide *Shalyaja Nadi Vrana* is a type of *Nadi Vrana* explained by Acharya *Sushruta* as a complication of *Vrana Shopha*. It persists due to presence of *Bala* and *Puya* entering into *twagadi dhatus*, eventually leading into a *Nadi Vrana*.^[2]

Shalyaja Nadi vrana is identified by the presence of *Shalya* (foreign body) which is *agantuja* and gets lodged within the body and is invisible. Due to which there will be haemanginous frothy discharge, sometimes hot in nature. The discharge varies from minimum to maximum and is associated with mild to moderate pain. Here, the *Gati* (movement) of the *Shalya* is very slow, as the foreign body gets lodged in the tissue rather than floating, it is difficult to remove hairs. So, the sinus will heal slowly. *Shalyaja Nadi vrana* is *Kashta sadhya*. *Nadi Vrana* is also indicated among *Chedyā*, *Bhedyā* and

Aharana yoga vyadhis as extraction of foreign body is required in *Nadi Vrana*. Acharya *Sushruta* has indicated the use of *Kshara sutra* in *Nadi Vrana* in the patients who are emaciated, timid and located at the *Marma sthanas*.^[5] Acharya *Sushruta* has advocated a very unique, minimally invasive technique i.e. *Kshara Sutra* in the management of *Shalyaja Nadi Vrana*. *Kshara Sutra* is minimally invasive as it does not alter any anatomical structure. No hospitalization is required, and it is a simple OPD based procedure. So *Apamarga Ksharasutra* was tried to treat the disease in the present case.

CASE REPORT

A 23 Years old male was apparently normal 2 months back. Patient's nature of work includes travelling of long distance in two-wheeler vehicle for about 60 km per day. Patient started experiencing pain and discomfort in the natal cleft region during the travel. When patient self-examined he noticed painful swelling in the natal cleft region. Patient neglected the condition and didn't take any treatment thereafter. The swelling gradually increased in size and pus discharge was noticed after a week, which was more at night. The pain was throbbing in nature and persisted almost throughout the day and was relieved on pus discharge and sitz bath. Patient had

soiling of clothes due to pus discharge which was foul smelling. Hence, he has approached Shalyatantra OPD of SKAMCH & RC on 16/8/2022 for the above complaints.

- On local examination, 3 openings were noted. First 2 openings seen in the midline of sacrococcygeal junction. Third opening seen slightly above the



second opening. Purulent blood mixed pus discharge noted from third opening

- Probing done through third opening in the least path of resistance. It passes downwards traversing 2nd and 1st opening and slightly below it for a length of about 5cm.
- Pus discharge was noted on withdrawal of the probe.



Intervention:

Poorva karma (Pre-operative procedures)

Pre-operative investigations were done. Written consent obtained. Part preparation was done at the natal area. Part preparation was done at the natal area. Inj. Xylocaine-2%, test dose given and no allergic reactions were observed.

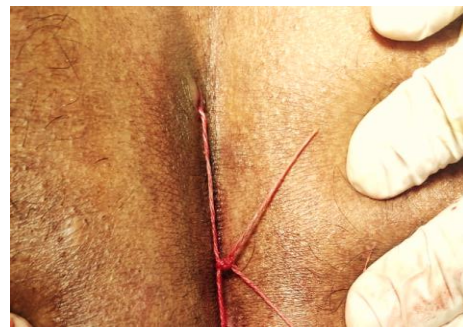
Pradhana karma (Operative procedure)

Under ASP, Patient was taken in a prone position. Part painting was done with betadine solution. Inj. Xylocaine-

2% was infiltrated around the sinus tract.

Probing was done (copper probe was used) through the 3rd opening towards the least path of resistance which was directed downwards towards the openings of two and one.

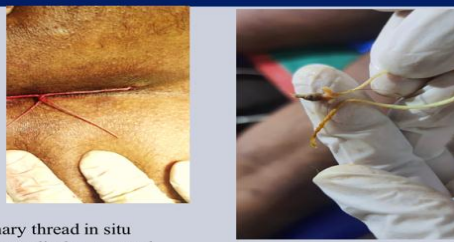
The sinus tract was extending beyond the first opening. A small incision was given where the tip of the probe was felt at the end of sinus tract, followed by Primary threading done.





Paschat karma (Post-operative procedure)



- Inj. TT 0.5 cc IM Stat
- Inj. Dynapar AQ IM stat
- Tab Taximo 200mg 1-0-1(A/F)



- Advised to come for Kshara sutra ligation on 10/09/2022 followed by thread changing after 1 week for simultaneous cutting and healing of the tract.



Date	Treatment given	Observation
On 10/09/2022	Under ASP, apamargha kshara sutra ligation done. Cap grab 1-1-1 (A/F) Tab Zerodol P 1 (SOS)	 <p>DURING THE COURSE OF TREATMENT:</p> <ul style="list-style-type: none"> Patient complaints of Profuse discharge. <p>Primary thread in situ Profuse discharge noted Tenderness ++ Length of tract ~5cm 1-2 Strands of Hairs noted on kshara sutra ligation</p>

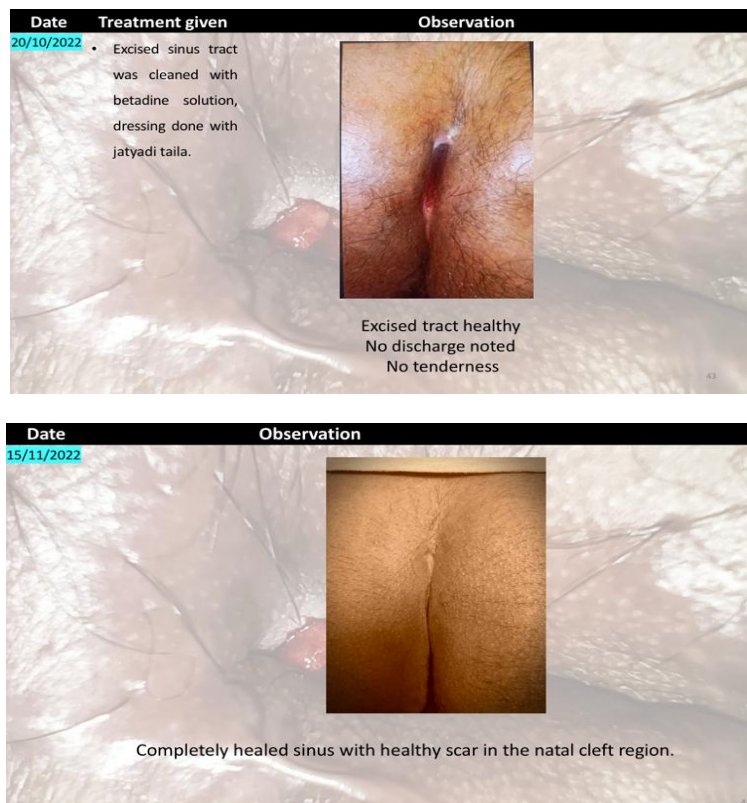
Date	Treatment given	Observation
17/09/2022	Under ASP, apamargha kshara sutra changed. Cap grab 1-1-1 (A/F) Tab Zerodol P 1 (SOS)	  <p>Kshara sutra in situ Discharge + Tenderness ++ Foul smell present Length ~4.5 cm 1-2 strands of Hairs noted on thread changing</p>

Date	Treatment given	Observation
24/09/2022	Under ASP, apamargha kshara sutra changed. Cap grab 1-1-1 (A/F) Tab Zerodol P 1 (SOS)	  <p>Kshara sutra in situ Discharge + Tenderness + Foul smell reduced Length ~3 cm 2-3 strands of hairs embedded in granulation tissue noted</p>

Date	Treatment given	Observation
01/10/2022	Under ASP, apamargha kshara sutra changed. Cap grab 1-1-1 (A/F) Tab Zerodol P 1 (SOS)	  <p>Kshara sutra in situ Mild discharge Tenderness + No Foul smell Length ~2.5 cm Tuft of hairs noted</p>

Date	Treatment given	Observation
08/10/2022	Under ASP, palasa kshara sutra changed. Cap grab 1-1-1 (A/F) Tab Zerodol P 1 (SOS)	  <p>Kshara sutra in situ No discharge Tenderness + Foul smell absent Length ~1.5 cm 1-2 strands of hairs noted</p>

Date	Treatment given	Observation
15/10/2022	<ul style="list-style-type: none"> Tract was excised followed by application of Karanja pratisaraneeya kshara. Dressing done with jatyadi taila. Cap grab 1-1-1 (A/F) Tab Zerodol P 1 (SOS) 	  <p>Length of the track was <0.5 cm Excised track healthy. No evidence of hairs inside the sinus cavity.</p>



DISCUSSION

This minimally invasive procedure Kshara sutra has good potential in the management of Pilonidal sinus. It minimizes the rates of complications 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 and self esteem.

CONCLUSION

Kshar Sutra ligation therapy in the management of Pilonidal sinus has proved boon for the humanity. It is effectively substituting the modern surgical procedures. Kshara sutra works by gradual chemical excision of the Pilonidal sinus with simultaneous healing. Early ambulation of patient even after the procedure is possible as it is a minimal invasive procedure. During application the best response was seen in reduction of Burning Sensation and Pain. No complications or recurrence have been reported in Kshara sutra therapy in this case study.

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