

EFFECT OF PALASHA KSHAR SUTRA IN THE MANAGEMENT OF SHALAYAJ NADIVRANA W.S.R. TO PILONIDAL SINUS

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ABSTRACT

A Pilonidal sinus occurs in the cleavage between the buttocks (natal cleft) and can cause discomfort, embarrassment and absence from work. It is more common in men (as they have more hair) than in women. The most commonly used surgical techniques for this disorder include 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 *Shalayaj Nadi Vrana* described in Sushruta Samhita and Pilonidal sinus. Sushruta has advocated a minimally invasive para-surgical treatment, viz., *Kshar Sutra* procedure, for *nadi vrana*. Hence this therapy was tried in Pilonidal sinus, and is described in this case report. *Kshar Sutra* treatment not only minimizes complications and recurrence but also enables the patient to resume work quicker and with less discomfort, impact upon body image and self-esteem as well as reduced cost.

Key words: Pilonidal sinus, *Shalya Tantra*, *Nadi Vrana chikitsa*, *Kshar Sutra*

INTRODUCTION

In *Shalayaj Nadi Vrana*, hair can be considered as *shalya* (Foreign body) because hair follicles have never been demonstrated in the walls of the sinus. The hairs projecting from the sinus are dead hairs, with their pointed ends directed towards the blind end of the sinus. While describing the “*shalya*” Acharya Sushruta has given much importance of hair (*kesha*) as foreign body . If the *kanta-*

kadi shalyas (such as; dirt, bone, splinter etc.) are lodged within the body, which are invisible to naked eye, if left to stay for long time it forms a track or *Gati*, tends to burst open the skin and other structures of the locality along its channel of insertion discharging *puya* (Pus). This discharge is frothy (*phenayukta*) as if it was stirred and mixed with blood. This discharge comes continuously associated with

pain although and increases on movement of the part. This type is called as *Shalyaja Nadi Vrana*. Sushruta has also mentioned fistula situated on upper anal region & pelvic bone (Coccyx bone) called “(*Kukandarasthi Bhagandara*)” while describing incurable disease.

Pilonidal sinus

The term of pilonidal sinus is given by Hodges in 1880. The term of “Pilonidal” derived from

Latin “Pilus” means hair and “nidus” means nest. The term literally means nest of hairs. The term pilonidal sinus describes a condition found in the natal cleft overlying the coccyx consisting of one or more, usually non-infected, midline opening which are communicated with a fibrous track lined by granulation tissue and containing hair lying loosely with the lumen.

The onset of Pilonidal sinus is primarily affects young adults and teenagers, the maximum incidence being between 20 to 30 years. The disease mostly affects men in particularly hairy men. Study proved that risks of development of pilonidal sinus increases with obesity, injury and family history. Other factors which are also play important role in disease prognosis are vehicle riding for long periods, prolonged sitting, excessive sweating and poor personal hygiene.

CLINICAL FEATURES

A pilonidal sinus may be an incidental finding, it may give rise to recurrent episodes of chronic sepsis, acute pilonidal sinus or as recurrent sinus after surgical treatment (Post-operative ulcer with hair).

Asymptomatic: The typical appearance is of one or more minute line pits in the pre-sacral area, approximately 5 cm behind the anus.

Symptoms of infection include

- Pain when sitting or standing.
- Swelling of the cyst.
- Reddened, sore skin around the area.

- Pus or blood draining from the abscess, causing a foul smell.
- Hair protruding from the lesion

AIMS AND OBJECTIVES

1. To assess the efficacy of *Palasha kshar* sutra in the management of *Shalayaj Nadvrana* w.s.r. to Pilonidal sinus.
2. To give maximum relief of symptom without any complication.
3. To prove the efficacy of *kshar sutra* described in Samhita for cure of *Shalayaj Nadvrana*.

MATERIALS AND METHODS

Patients: A total of 20 patients attending the OPD & I.P.D. of Shalya-tantra in the Saint Shara Ayurvedic Medical College, kotshamir, Bathinda, PB have been selected irrespective of their sex, religion, occupation etc. randomly for the present study. Patients will be diagnosed on the basis of signs and symptoms as per Ayurveda as well as modern aspects.

Research Protocol: A detailed protocol was prepared for the study incorporating all the Relevant points from both the Ayurvedic as well as Modern point of view.

Inclusion criteria

- Pilonidal sinus disease of the intergluteal region
- Primary disease.
- Ages between 18 and 50, both gender.
- No evidence of Malignancy

Exclusion Criteria

- Recurrent Sacrococcygeal Pilonidal Sinus (*Nadi vrana*) disease
- Denial to sign informed consent.
- Associated with Malignancy.

Procedure of Kshar sutra karma

POORAVA KARMA

Written and informed consent is obtained.

The patient's perianal area was shaved and disinfected with povidine-iodine solution. Tetanus prophylaxis is given in the form of T.T. 0.5ml i.m. state.

Lignocaine sensitivity is done with a test dose.

PRADHAAN KARMA

Position: Jack Knife Position

Prone position with the sacro-coccygeal region elevated by pillow or angulations of the table.

It is also known as the Jack Knife position.

Anesthesia

This procedure was performed under local anesthesia (lignocaine 2%) with infiltration around the sinus in different planes deep up to natal cleft.

Procedure

The visible hairs and the bad debris with pus were removed from the sinus to make it ready to probing.

Step 1- Probing-Methylene blue dye is injected through the external opening to stain the sinus tracks. Probing of the sinus is done to locate the track and its branches. Care was taken not to create a false tract. A pin-pointed director now introduced through the external opening deep up to the sacro-coccygeal cleft or wherever the probe negotiates without any difficulties.

Step 2- Widening of the opening-Now the external opening widened with the help of artery forceps in the direction of probe. Widening is done enough so that one can visualize well into the sinus. Visualized hairs are removed.

Step 3- Curettage -Unhealthy granulation tissue along with the impacted bunch of hairs is curetted with a curette.

Step 4- Trimming of the edge-To promote proper drainage and healing trimming of the edge is performed. All the dead part is removed during trimming.

Step 5- Application of *Ksharsutra*-The *ksharasutra* application is done through the sinus tract deep into the natal cleft and taken out through the secondary opening, if present or external opening is made in the dependent part where pus collection is expected. The *ksharasutra* is taken out through that opening and loose ligature is applied. The free ends of *ksharasutra* are placed into the sinus cavity for action of *ksharasutra*. After *kshar sutra karm*, wound is mopped and cavity is packed with the gauze soaked with a weak iodine solution and bandage is applied.



Removal of Visualized hairs



Ligation of Kshar sutra



Healed Pilonidal Sinus

Figure 1: Application of Kshar Sutra in Pilonidal Sinus

PASCHATA KARMA

Usnodak awagaha (Hot water sitz bath): Patient is advised to undertake *Usnodak awagaha* twice daily for 15 minutes to maintain local hygiene and reduce pain & inflammation.

Application of *Durvadi Ghrita*. Cleaning the wound and it is applied over the wound after sitz bath.

CRITERIA OF ASSESSMENT OF CASES

The assessment of the result is purely based on major signs and symptoms (Local) of the disease presented before and after the completion of treatment. On the basis of degree of relief in the textual features of *Shalyaja Nadi Vrana* (Pilonidal Sinus) and on the basis of the condition of the patients, were assessed in the form of scores under following headings:

The details of scoring pattern are as follows

ASSESSMENT OF PAIN

- No pain
- The pain is mild as to tolerate
- The pain is moderate while sitting and walking

- The pain is severe and not relived in any condition

ASSESSMENT OF DISCHARGE

- No discharge / dry dressing
- Scanty occasional discharge & little wet dressing. (The area of wetness in gauze is up to 1/2x1/2 cm.)
- Discharge evident on examination and patient complains of often feeling of often feeling of wetness. (The area of wetness in gauze is up to 1x1 cm)
- Professed, continuous discharge which needs frequent dressing (More than 1 cm. gauze is wet)

ASSESSMENT OF TENDERNESS

- No tenderness
- The pain on deep palpation
- The pain and tenderness on deep pressure.
- The patient does not allow palpation due to pain even in touching and difficulty in sitting.

ASSESSMENT OF UNITCUTTING TIME (U.C.T.)

U.C.T. = Total number of days / initial length of the thread in cm.

Table 1: Statistical Analysis Showing the Effect of Therapy on Various Sign and Symptom after the Treatment in 20 Patients.

Symptoms	% Relief	S.D.	S.E.	T- value	p- value
Pain	89.73 %	0.486	0.124	18.53	< 0.001
Tenderness	87.86 %	0.701	0.181	10.63	< 0.001
Discharge	82.74 %	0.633	0.162	09.78	< 0.001

Table 2: Complete Healing Time

No.	Healing Period	No. of Patients	Healing(%)
1	< 30 Days	0	0
2	31-60 Days	7	35.0
3	61-90 Days	8	40.0
4	91-120 Days	5	25.0

Table 3. Total Effect of Therapy

Parameters	No. of Patients	% Achieve
Cured	18	90.0 %
Improvement >50- 74%	01	05.0 %
Uncured	01	05.0 %

RESULT & DISCUSSION

Pain: Before treatment the mean score of pain was 2.5 which were reduced to 0.27 after treatment. Thus this treatment provides 89.73 % of relief. The value was also found to be significant statically.

Tenderness: Before treatment the mean of tenderness was 2.3 which were reduced to 0.25 after treatment. Thus this treatment provides 87.86% of relief. The calculated 't' value was found to be 10.63 (P <0.001) which was highly significant.

Discharge: Before treatment the mean of discharge was 1.83 which was reduced to 0.32 after treatment. Thus this treatment provides 82.74% of relief. The calculated 't' value was 9.78 (P<0.001) which was found to be highly significant. The discharge from *Shalyaj Nadi Vrana* (Pilonidal sinus) track was reduces very early in the patient treated by *Guggulu* based *Ksharasutra*.

CONCLUSION

Acharya Sushruta has advocated *Ksharsutra* ligation as minimally invasive parasurgical treatment for *Nadi Vrana*. *Ksharsutra* treatment not only minimizes complications and recurrence but also enable the patient to resume their work quickly and with less discomfort as well as reduce cost of treatment.

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