



Case Study

THE EFFICACY OF *VIBHITHAKI KSHARASUTRA* IN THE MANAGEMENT OF *NADIVRANA* W.S.R
PILONIDAL SINUS

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ABSTRACT

Pilonidal sinus (PNS) is a chronic disorder that occurs in the space between the buttocks (natal cleft). Men are more susceptible (because they have more hair) to pilonidal sinus than women. Excision, primary closure and reconstructive flap surgery are the most commonly used surgical techniques for this disease. However, there is a high risk of recurrence or wound infection after surgery. In addition, the patient needs a longer hospital stay, and the procedure is expensive. *Acharya Susruta* (800 BC) considered this disease under *Nadivrana* (*Shalyaja*) and advocated a minimally invasive para surgical treatment namely the *Kshara Sutra* procedure. *Susrutha* mentioned *Kshara dravyas* like *Apamarga*, *Palasha*, *Vasa*, *Vibhithaki*, etc used in the preparation of the *Ksharasutra*. Here we selected *Vibhithaki* to prepare *Kshara* and *Ksharasutra*. *Vibhithaki* is cost-effective as it is easily available and the properties of this plant are favourable to *Kshara* qualities. The present case study deals with the efficacy of *Vibhithaki Ksharasutra* in the management of *Nadivrana* (pilonidal sinus).

INTRODUCTION

Nadi Vrana is recognized as a tubular *Vrana* and is identical to *Dusta Vrana* in all aspects, improper management or negligence of management of *Vrana sophia* will lead the *Vrana* into *Nadi Vrana*. According to the classics, foreign substances (*Shalya*) also induce the formation of sinus. One of the main causes of non-healing nature of *Nadi Vrana* (*Shalyaja*)^[1] is the presence of hair. Pilonidal sinus is a condition that most usually affects the hair follicles of the sacro-Coccygeal natal cleft which is similar to *Shalyaja Nadi Vrana*. It is also called as jeep disease^[2] because it is very common in jeep drivers. Males are twice as likely as females to be affected and young adults of working age are disproportionately affected. Pilonidal sinus generally manifests as an abscess or a painful, continuously draining sinus passage. The painful nature of the illness generates severe morbidity, frequently with a prolonged loss of normal activities, regardless of the route of presentation.

The main principle of treatment of pilonidal sinus is to complete removal of sinus tract, healing and to prevent recurrence. So many different techniques have been developed e.g. Z-plasty procedure, cryosurgery, vacuum assisted closure, excision with secondary healing, excision with primary closure, local flap surgery etc. Modern treatment employs wide excision which usually depends on secondary healing and leaves an ugly scar behind. *Acharya Susruta* (800 B.C) advocated a minimally invasive para surgical treatment namely the *Kshara Sutra*^[3] procedure in the treatment of pilonidal sinus. *Ksharasutra* requires minimal incision and produces very less scar. Regarding *Kshara Sutra*s, the *Apamarga Ksharasutra* is widely practiced. As we turn to the classics (*Susrutha Samhita*), we find the reference regarding *Vibhithaki* grouped in *Kshara dravyas*^[4]. When we consider the properties⁵ of *Vibhithaki* like *Kashaya Rasa*, *Ushna Veerya*, *Madhura Vipaka*, *Ruksha*, and *Laghu Guna*, which are favourable to qualities of *Kshara*. It is also cost effective due to easy availability. So *Vibhithaki Ksharasutra* was tried to treat the disease *Nadi vrana* in the present case.

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Case Report

This is a single case study, a 28 years old male, working as sales boy, came to *Shalya Tantra* OPD (Op no. 23146) at SV Ayurveda hospital, Tirupati, Andhra Pradesh, on 7th April 2023

Chief Complaint

Patient complaints of pus discharge from natal cleft at Sacro-Coccygeal junction associated with intermittent pain since 6 months.

History of Present Illness

The patient is suffering from pus discharge from natal cleft near to the Sacro-Coccygeal region along with pain since the last 6 months. He consulted many allopathic hospitals but could not get relief. So he came to SVAYH for better treatment.

History of Past illness

No H/o T₂ DM, HTN, CAD, CKD, epilepsy, hypothyroidism

Surgical history

No surgical history was found.

Clinical Examination

Ashtavidha Pariksha

1. *Nadi*: 80 beats/min
2. *Mutra*: Normal
3. *Mala*: Malabaddhata
4. *Jihwa*: Malavrita
5. *Shabda*: Spashta
6. *Sparsha*: Anushna-seeta
7. *Drik*: Normal
8. *Akriti*: Sama

General Examination

- Height: 163 cm
- Weight: 66kg
- B.P.: 120/80 mm of Hg
- Pulse: 80/BPM
- Respiratory Rate: 17/Min
- Temperature: Afebrile

On Examination

- Two external openings at mid line of natal cleft just above the buttocks with a distance of 5cm from anal verge.
- Pus discharge present.
- Tenderness present.
- **On probing**: the two sinuses were interconnected with the length of 4cm directed downwards, hair on withdrawal of probe is seen

METHODOLOGY

Preparation of *Vibhitaki Kshara*^[6]

Kshara is prepared by burning *Panchangas* of *Vibhitaki* plant and ash is collected in vessel, then ash was mixed with 6 parts of water, then ash has to settle

down, the supernatant water is collected and filtration was repeated for 21 times with clean cloth. The liquid was then evaporated slowly on a moderate constant flame. During evaporation process, the mixture has to stir time to time with a flat stirrer. By evaporating, a uniform fine clear white powder, *Kshara* was produced at the end of boiling. The alkaline *Kshara*, with a pH of 12, is stored in a glass bottle.

Preparation of *Vibhitaki Ksharasutra*

Barbour linen surgical thread no- 20 is fix to the *Ksharasutra* hangers, *Snuhi ksheera* (*Euphorbia neriifolia*) smeared on the thread with the gauze piece and dried in the *Ksharasuta* cabin, the same process is repeated for 11 days then pass the thread through *Vibhitaki Kshara* powder and allowed to dry, same process is repeated for 7 days, then pass the thread through *Haridra churna* (*Curcuma longa*) and allowed to dry, same process is repeated for 3 days. The thread is sterilized with UV light for 30 minutes per day; then *Ksharasutra* is sealed in glass test tube.

Application of *Vibhitaki Kshara Sutra* in *Nadi Vrana*: Pre-operative

Before planning this procedure other aetiologies like TB, HIV, HbSAg, DM were ruled out. Informed written consent was taken. Part preparation was done. Enema was given at early morning on day to be operated. Injection T.T 0.5 cc IM was given and Inj. plain lignocaine 2% was given intradermal for sensitivity test.

Operative

Patient was shifted to OT. Under all aseptic condition patient was taken in OT with normal vital data. Patient was taken on OT table in prone position after painting and draping local anesthesia (Xylocaine 2%) given on operated part, malleable probe is introduced in one of the sinus opening which is gradually extended to the other opening taking it out, then *Vibhitaki ksharasutra* was threaded into eye of probe and taken out through second opening. The two ends of the thread were tied together. Complete haemostasis was checked, a sling soaked with betadine and xylocaine jelly is packed with bandage.

Post operative

From next morning, sitz bath/*Avagaha sweda* (warm water + *Panchavalakla* decoction) was advised for two times. Daily antiseptic dressing is done after keeping *Jatyadi Taliapichu*.

- *Triphala guggulu 1 tab TID*
- *Kanchanara guggulu 1 tab TID*
- *Arogyavardhini vati 1 tab TID*
- *Kshara sutra* change weekly once

Patient is advised to take fibre rich diet and plenty of water.

Follow up

Regular follow up were done to assess the progress of the disease by taking pain and pus discharge into consideration. The pus discharge was heavy during first 3 days then it was completely

subsided after 16 days, pain was also heavy during first 4 days then for every thread change intensity of pain has decreased. After cut through of thread the wound completely healed after 8 days.

Symptoms	1 st follow up	2 nd follow up	3 rd follow up	4 th follow up	5 th follow up
Pain	+++	++	+	-	-
Discharge	+++	++	+	-	-
Tenderness	++	+	-	-	-

OBSERVATIONS AND RESULTS

In this study the track has been completely cut in 5 weeks, after cut through of thread the wound completely healed after 8 days. Patient returned to normal life with no side effects after one and half month, there was no reoccurrence of symptoms after 6 months of follow-up.

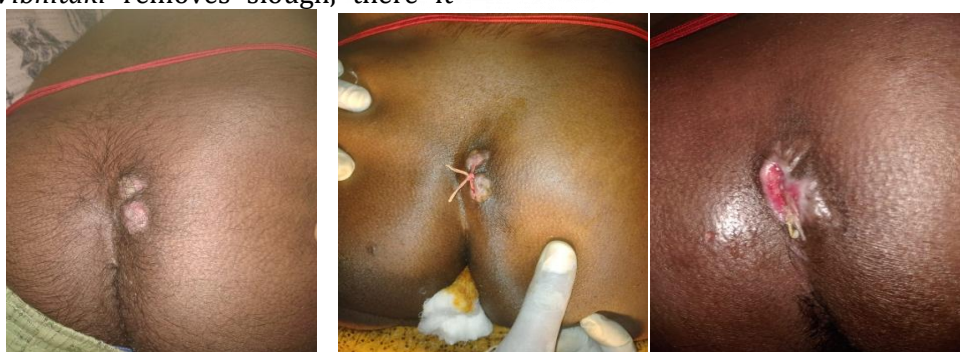
DISCUSSION

There are so many modalities are available in the treatment of pilonidal sinus (*Nadivrana*) nowadays, *Ksharasutra* is becoming more potential to treat pilonidal sinus. *Acharya Sushruta* mentions *Ksharasutra* therapy in *Nadivrana chikitsa*. Action of *Ksharasutra* is cutting through and laying the tract open by the medicinal property in *Ksharasutra*. For this present study the *Vibhitaki Ksharasutra*, is selected for the management of *Nadivrana*, as it is mentioned one of the *Kshara Dravya* according to *Susrutha*. When *Kshara* was prepared using *Vibhitaki*, it attains properties of *Kshara* like *Shodhana*, *Ropana*, *Soshana*, *Stambana*, *Lekhana* and *Krimighna*. *Kashaya Rasa* of *Vibhitaki* helps to binds the wound margins. By virtue of *Ruksha Guna*, *Vibhitaki* removes slough, there it

dries the wound. The *Madhura Vipaka* of *Vibhitaki*, aids in fast healing by formation of healthy granulation tissue. The *Krimighna Guna* of *Vibhitaki* prevents the wounds from getting infected. The *Shothahara* property of *Vibhitaki* is due to *Laghu* and *Ruksha guna*, which helps reducing swelling. *Sthambhana karma* is due to *Kasaya rasa Pradhana* which controls discharge. The qualities of *Kshara*, *Haridra* and *Snuhi* help both fast cutting and simultaneously help in fast healing. This peculiar quality of drug has made this *Kshara* a unique thread for the best treatment of *Nadivrana*.

CONCLUSION

The *Vibhithaki Ksharasutra* has good potential in the management of pilonidal sinus. It enables the patient to resume work and normal social activities as early as possible. In this technique, scar formation is minimal and can be cosmetically supported technique, but to establish this fact and effect on recurrence of disease, further study of longer duration and on larger sample is required, probably double blind randomized studies may required to re-establish the facts.



Before treatment After application of Ksharasutra



After cut trough of Ksharasutra Completely healed

REFERENCES

1. K Murthy Srikantha K. R. Susrutha Samhitha Vol-II (Chi. 17/26-28), Reprint Edition, Varanasi, Chowkhamba Orientalia, 2017, page no. 168.
2. S Das: A Manual on clinical surgery including special investigations and differential diagnosis by Somen Das 15th Edition in 2021, Chapter no 54, Page No 1099.
3. K Murthy Srikantha K. R. Susrutha Samhitha Vol-II (Chi.17/32), Reprint Edition, Varanasi, Chowkhamba Orientalia, 2017, page no. 168
4. K Murthy Srikantha K. R. Susrutha Samhitha Vol-I (Su. 11/11), Reprint Edition, Varanasi, Chowkhamba Orientalia, 2017, page no. 65,
5. Sastry. J.L.N Madanaphala Nighantu (28-30), first Edition, Varanasi, Chowkhamba Orientalia, 2010, page no.12-13.
6. K Murthy Srikantha K. R. Susrutha Samhitha Vol-I (Su. 11/11), Reprint Edition, Varanasi, Chowkhamba Orientalia, 2017, page no. 65

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