

A Case Report on Pilonidal Sinus (Nadi Vrana) Managed Successfully with Apamarga Ksharsutra

Dr. Anil Kumar^{1*} Dr. Rashmi Gupta²

^{1*}Assistant Professor, Department of Shalya Tantra, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India

²Associate Professor, Department of Shalya Tantra, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India

Abstract

Pilonidal sinus (Nadi Vrana) is a chronic inflammatory illness that often affects the sacrococcygeal area, characterized by a blind tract harboring hair and debris. In Ayurveda, it resembles *Shalyaja Nadi Vrana*—a sinus induced by the lodging of foreign material (shalya). Though current surgical methods like extensive excision and flap repair are regularly performed, they often result in protracted recovery and high recurrence rates. *Ksharsutra* treatment, a minimally invasive Ayurvedic parasurgical method, has proven to be a safe and successful alternative. Here, we show a case of recurrent pilonidal sinus successfully handled with *Apamarga Ksharsutra* (alkaline thread derived from *Achyranthes aspera*), demonstrating its efficacy in encouraging controlled debridement, drainage, and healing with little scarring.

Keywords: Pilonidal sinus, Nadi Vrana, *Apamarga Ksharsutra*

Introduction

Pilonidal sinus is a suppurative, recurring, and chronic disorder that typically affects the area of the natal cleft. It happens as a result of hair shafts entering the subcutaneous tissues and acting as a foreign body, causing sinus development and chronic inflammation¹. The Latin words pilus (hair) and nidus (nest), which literally translate to "nest of hair," are the source of the name pilonidal². Young individuals who lead sedentary lifestyles and have hairy bodies are more likely to suffer from this illness.

Sushruta in his treatise refers to a similar condition in Ayurvedic literature called *Shalyaja Nadi Vrana*³. It is a type of *Dushta Vrana* (non-healing ulcer) with an extended, narrow channel created by a persistent infection or foreign body (*shalya*). In order to concurrently encourage regulated cutting, drainage, and healing, Sushruta has stressed the use of *Ksharsutra* in the management of such *Nadi Vranas*⁴. Wide excision with secondary healing, excision with primary closure, Z-plasty, and flap reconstruction are examples of contemporary surgical therapy⁵. Nevertheless, these operations are frequently linked to recurrence, lengthy hospital stays, postoperative pain, and inadequate cosmetic results.

These restrictions are eliminated by *Ksharsutra* therapy, which guarantees total sinus tract eradication with little tissue damage, quicker recovery, and minimum recurrence⁶.

In order to demonstrate the therapeutic benefits of this traditional Ayurvedic method, this case study describes a clinical example of Pilonidal sinus that was successfully treated with *Apamarga Ksharsutra*.

Case Report

A 27-year-old man arrived at the NRC OPD of the Shalya Tantra Department, faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, complaining of pain, itching, and discomfort while sitting for the previous seven months due to a small opening at the upper part of the natal cleft. The patient had undergone surgical excision at a private hospital six months earlier, but the discharge continued and the wound never fully healed. No history of TB, diabetes mellitus, or other systemic illnesses was present. The patient's job required them to sit for extended periods of time, and the area's hygiene was inadequate.

Local Examination

- Site: Midline over the sacrococcygeal region (about 4 cm above the anal verge)
- External Opening: Single, oval, with sero-purulent discharge
- Local tenderness and induration present
- Probing revealed a tract approximately 3 cm deep, directed upward and laterally
- No secondary openings were seen

Routine investigations (CBC, FBS, HIV, HBsAg, and urine examination etc.) were within normal limits.

Diagnosis: After all clinical evaluation, it was diagnosed as *Pilonidal Sinus (Nadi Vrana)*

Intervention

The patient was prepared for *Ksharsutra* application once informed consent was obtained. The surrounding area was cleansed and covered with aseptic precautions. 2% lignocaine was used as a local anaesthetic. A pliable probe was used to gently probe the sinus tract. An *Apamarga Ksharsutra* was threaded through the tract and fastened firmly at both ends when the passage was established. The patient was instructed to have a weekly follow-up for *Ksharsutra* replacement after the surgery was finished in a single session.

Preparation of *Apamarga Ksharsutra*⁷

The *Ksharsutra* was prepared using the traditional process outlined in the *Sushruta Samhita*, which CCRAS standardized. *Snuhi* latex (*Euphorbia nerifolia*), *Apamarga Kshara* (alkaline ash of *Achyranthes aspera*), and turmeric powder (*Haridra*) were applied to a surgical linen thread (Barbour No. 20). The thread was dried and UV-sterilized after 21 coats.

Adjuvant Ayurvedic Medicines used

- *Triphala Guggulu* – 2 tablets thrice daily
- *Arogyavardhini Vati* – 2 tablets twice daily
- *Gandhak Rasayan* – 2 tablets twice daily
- Local application of *Jatyadi Taila* after cleansing

Postoperative Care

- Sitz bath with *Triphala Kwatha* twice daily
- High-fiber diet, plenty of fluids, and avoidance of prolonged sitting
- Weekly follow-up for changing the *Ksharsutra*

Observation and Results

Day	Observation	Result
7 th Day	Pain and discharge significantly reduced	Foul smell absent, minimal tenderness
14 th Day	Formation of healthy granulation tissue	Reduction in tract depth
21 st Day	Cut through was done	No discharge, healthy healing
28 th Day	Healing was quick	Smooth epithelialization
45 th Day	Follow-up – complete healing	Minimal scar

Outcome

The patient was followed up for 8 months, during which no recurrence or secondary infection was reported. The cosmetic outcome was excellent.

Discussion

The three actions of *Apamarga Ksharsutra* are *Shodhana* (debridement), *Bhedana* (drainage), and *Chedana* (excision)⁸. *Apamarga Kshara's* alkaline quality aids in the breakdown of slough and necrotic tissue, encouraging healthy granulation⁹. Pus and debris do not build up because of the thread's mechanical action, which gradually cuts and drains. In addition to acting as a binding agent, *Snuhi* latex has anti-inflammatory and proteolytic qualities that promote wound healing¹⁰. *Curcuma longa*, or *haridra*, has antibacterial and anti-inflammatory properties that lessen pain and illness¹¹. In contrast to contemporary surgical methods that necessitate extensive excision and extended hospital stays, *Ksharsutra* therapy guarantees ongoing drainage and healing concurrently, lowering recurrence rates and enhancing patient compliance. This therapy converts *Dushta Vrana* (infected wound) into *Shuddha Vrana* (clean wound) through the combined action of *Lekhana* (scraping), *Ropana* (healing), and *Shodhana* (cleansing).

Previous studies conducted several Ayurvedic centres have shown a promising success rate of *Nadi Vrana* or Pilonidal sinus with *Ksharsutra* therapy, emphasizing its clinical significance¹².

Conclusion

Pilonidal sinus (*Nadi Vrana*) can be treated safely, affordably, and effectively using *Apamarga Ksharsutra*. It guarantees cutting, draining, and healing all at once with few postoperative complications and very little recurrence. It can be

regarded as a better option than contemporary surgical procedures because it is a daycare procedure with a quick recovery period. The outcomes of this case further support Sushruta's traditional knowledge of using *Ksharsutra* chikitsa to effectively treat sinus diseases.

References

1. Harris C, Sibbald RG, Mufti A, Somayaji R. Pilonidal sinus disease: 10 steps to optimize care. *Advances in Skin & Wound Care*. 2016 Oct 1;29(10):469-78.
2. Choy KT, Srinath H. Pilonidal disease practice points: 'An update'. *Australian journal of general practice*. 2019 Mar;48(3):116-8.
3. Rajasree G, Patel AK. A Review on Salyajanya Nadi Vrana (pilonidal sinus) with clinical approach. *Journal of Ayurveda and Integrated Medical Sciences*. 2019 Apr 30;4(02):85-9.
4. Shinde P, Toshikhane H. Pilonidal sinus (Nadi vrana): A case study. *Int J Ayurveda Res*. 2010 Jul;1(3):181-2. doi: 10.4103/0974-7788.72492. PMID: 21170212; PMCID: PMC2996578.
5. Iesalnieks I, Ommer A. The Management of Pilonidal Sinus. *Dtsch Arztebl Int*. 2019 Jan 7;116(1-2):12-21. doi: 10.3238/arztebl.2019.0012. PMID: 30782310; PMCID: PMC6384517.
6. Dwivedi AP. Management of pilonidal sinus by Kshar Sutra, a minimally invasive treatment. *Int J Ayurveda Res*. 2010 Apr;1(2):122-3. doi: 10.4103/0974-7788.64408. PMID: 20814527; PMCID: PMC2924975.
7. CCRAS. *Standardization of Ksharsutra*, Ministry of AYUSH, Govt. of India, 2006.
8. Dudhamal TS, Gupta SK, Bhuyan C, Singh K. The role of Apamarga Kshara in the treatment of Arsha. *Ayu*. 2010 Apr;31(2):232-5. doi: 10.4103/0974-8520.72406. PMID: 22131716; PMCID: PMC3215370.
9. rajesh gupta. efficacy of apamarga kshar sutra in the management of shalyaj nadi vrana (pilonidal sinus). *Int Ayurvedic Med J*. 2015;Volume III(Volume III Issue II 2015):469-471.
10. Manoj Goyala MG, Nagoria BP, Sasmal D. Wound healing activity of latex of *Euphorbia caducifolia*-2012.
11. Prasad S, Aggarwal BB. Turmeric, the Golden Spice: From Traditional Medicine to Modern Medicine. In: Benzie IFF, Wachtel-Galor S, editors. *Herbal Medicine: Biomolecular and Clinical Aspects*. 2nd edition. Boca Raton (FL): CRC Press/Taylor & Francis; 2011. Chapter 13. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK92752/>
12. Badwe YR, Rokade B, Paliwal A. ROLE OF KSHARSUTRA IN THE TREATMENT OF RECURRENT PILONIDAL SINUSES. *International Journal of Ayurveda and Pharma Research*. 2015.