

**EFFECTIVENESS OF ARKA KSHEER-BASED KSHAR SUTRA IN THE MANAGEMENT OF NADI VRANA: A CASE STUDY****Dr. Dheeraj Soni\*<sup>1</sup>, Dr. Mrigank Shekhar<sup>2</sup>, Dr. Anubha Srivastava<sup>3</sup>**<sup>1</sup>PG Scholar Shalya Tantra Department Government Ayurvedic College and Hospital Varanasi.<sup>2</sup>Assistant Professor Shalya Tantra Department Government Ayurved College and Hospital Varanasi.<sup>3</sup>Assistant Professor Rachana Sharir Department Government Ayurved College and Hospital Varanasi.**\*Corresponding Author: Dr. Dheeraj Soni**

PG Scholar Shalya Tantra Department Government Ayurvedic College and Hospital Varanasi.

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**ABSTRACT**

Pilonidal sinus is a chronic condition of the sacrococcygeal region that can be correlated with *Shalyaja Nadi Vrana* described in Ayurveda. It is considered a type of *Dushta Vrana*, wherein a sinus tract develops due to the lodgment of hair acting as a foreign body, leading to persistent infection and discharge. The condition often shows a tendency for chronicity with intermittent episodes of acute inflammation if not managed properly. Classical Ayurvedic texts emphasize the role of *Ksharasutra* therapy in the effective management of *Nadi Vrana*. The present case report describes a 25-year-old male patient who presented with complaints of pain, purulent discharge, slough formation, foul smell, swelling, and discoloration of skin in the natal cleft region, with a duration of three months. The patient was treated with *Arka Ksheera*-based *Yavakshara Sutra*, a modified medicated thread therapy. Gradual excision and healing of the sinus tract were achieved with minimal tissue damage and satisfactory cosmetic outcome, without recurrence during the follow-up period.

**KEYWORDS:** Pilonidal sinus, *Shalyaja Nadi Vrana*, *Dushta Vrana*, *Arka Ksheera Yavakshara Sutra*.**INTRODUCTION**

In Ayurveda, *Nadi Vrana* is described as a chronic sinus characterized by a narrow tract with intermittent purulent discharge. Acharya Sushruta explains it as a complication of improperly healed wounds, caused by vitiated *Doshas*—mainly *Vata* and *Kapha*—along with *Dushta Rakta*.<sup>[1]</sup> Among its types, *Shalyaja Nadi Vrana* occurs due to the presence of a foreign body (*Shalya*), leading to persistent inflammation and suppuration.<sup>[2]</sup> Pilonidal sinus, a benign condition commonly affecting young adults, can be correlated with *Shalyaja Nadi Vrana*. It typically occurs in the natal cleft and contains hair tufts, presenting with pain, discharge, and recurrent infection.<sup>[3]</sup> In Ayurvedic terms, hair acts as *Shalya*, causing obstruction of *Srotas* by *Kapha* and *Meda*, followed by *Vata* aggravation leading to sinus tract formation.<sup>[4]</sup> Modern surgical management includes excision and flap procedures, which may be associated with recurrence, delayed healing, and scarring.<sup>[5]</sup> In contrast, Ayurveda offers *Ksharasutra* therapy, a

minimally invasive parasurgical technique that facilitates simultaneous cutting, debridement, and healing of the tract. In the present study, *Arka Ksheera*-based *Yavakshara Sutra* is utilized as a modified *Ksharasutra*. *Arka Ksheera* possesses *Lekhana*, *Shodhana*, and *Krimighna* properties, while *Yavakshara* exhibits *Ksharana* and *Chedana* actions, promoting effective sloughing of unhealthy tissue and healing.<sup>[6]</sup> Therefore, the present study aims to evaluate the efficacy of *Arka Ksheera*-based *Yavakshara Sutra* in the management of pilonidal sinus as a safe, cost-effective, and minimally invasive treatment modality.

**CASE REPORT**

A 25-year-old male patient was apparently asymptomatic 3 months ago, when he first noticed a small opening in the natal cleft region, associated with pain, which was aggravated on sitting. Over time, Pus discharge began from the opening. The discharge was foul-smelling and occasionally stained his clothes. The patient also

complained of discomfort while sitting and walking. He consulted a local doctor and took medications, but did not experience any significant relief. The symptoms persisted with occasional exacerbation. The patient then presented with these complaints at OPD No. 25, Rajkiya Ayurvedic College, Varanasi.

### PHYSICAL EXAMINATION

On examination, a small sinus opening was present in the sacrococcygeal region. The opening showed pus discharge with a foul odor, along with mild swelling and tenderness. On palpation, a firm cord-like tract was felt extending from the external opening toward the gluteal natal cleft. Probing through the external opening was done to assess the course, branching, and extent of the tract, which measured approximately 3 cm. Per rectal examination was performed to rule out any associated anal pathology or communication with the anal canal. Routine blood and urine investigations were normal, and there was no history of any systemic illness. Before starting treatment, other possible causes such as tuberculosis, pelvic inflammatory abscess, HIV infection, diabetes mellitus, foreign body, and trauma were excluded.

### INTERVENTION

The part was prepared with Savlon, spirit, and Betadine solution respectively, and the surrounding area was draped with a sterile cut sheet under all aseptic precautions. Inj. Lignocaine with adrenaline (2%), diluted with distilled water in a ratio of 1:1, was infiltrated in and around the sinus tract to achieve adequate local anesthesia. The sinus tract was then gently dilated with the help of an artery forceps, and the loose,

embedded hair within the tract was removed. This was followed by thorough irrigation of the sinus cavity using sterile water and an antiseptic solution. A malleable silver probe was carefully introduced into the tract and negotiated through to the external opening. An *Arka Ksheera*-based *Yavakshara Sutra* was then threaded along the tract with the help of the probe and secured in place by tying its ends. A cutting pathway was established within the sinus tract and was further extended using scissors. The *Ksharsutra* was replaced at each follow-up visit. On the fourth visit, a complete lay-open (cut-through) of the sinus tract was performed, after which the patient was discharged. The wound showed complete healing within one month after the cut-through procedure, leaving behind only a minimal scar. Along with the surgical intervention, the patient was advised to maintain a light, protein-rich diet. The prescribed medications included *Triphala Guggulu*, *Arogyavardhini Vati*, and *haritaki churna* at bed time with luke warm water.

### OBSERVATION AND RESULTS

After 7 days of application of *Arka Ksheer*-based *Yava Kshar Sutra*, the wound created during the operative procedure—following removal of unhealthy tissue—was found to be clean and free from slough. By the 14th day, healthy granulation tissue was observed. Complete cut-through of the remaining tract occurred by the 3rd week, during which regular dressing was carried out with *Jatyadi* oil. On follow-up after one month, the wound had healed completely with minimal scarring. Continued follow-up for three months showed no evidence of recurrence.



**Fig. 1: External Opening Present At Natal Cleft Before Treatment.**



**Fig. 2: During Treatment Unhealthy Track Curated and Ksharsutra Application Done**



**Fig. 3: During Treatment.**



**Fig. 4: After Complete Healing.**

### DISCUSSION

At present, multiple treatment options are available for pilonidal sinus; however, *Kshar Sutra* therapy is increasingly recognized as an effective management approach. The *Arka Ksheer*-based *Yava Kshar Sutra* works through a combined chemical and mechanical effect, leading to gradual cutting through the tract along with debridement, drainage, and thorough cleansing, which supports effective healing of the sinus. As described in classical Ayurvedic literature, *Acharya Sushruta* has mentioned *Kshar Sutra* in the context of *Nadi Vrana* management<sup>7</sup>. This minimally invasive technique has shown encouraging results in pilonidal sinus cases, with the advantage of lowering the chances of recurrence and complications while promoting quicker restoration of normal routine activities. From an Ayurvedic viewpoint, the therapeutic effect of *Arka Ksheer*-based *Yava Kshar Sutra* is attributed to its potent cleansing and wound-healing action at the site of application. It also supports healing with minimal scarring, thus providing a cosmetically acceptable outcome.

### CONCLUSION

*Kshar Sutra* therapy is regarded as an important therapeutic procedure described in Ayurveda. This minimally invasive technique shows significant efficacy in the management of pilonidal sinus or *Nadi Vrana*. Originating from classical Ayurvedic principles, it is widely accepted among patients across different age groups. It serves as a valuable alternative, especially for individuals who are apprehensive about or unwilling to undergo conventional surgical procedures, offering encouraging and effective clinical outcomes.

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