

**AYURVEDIC MANAGEMENT OF PILONIDAL SINUS (SHALYAJA NADI VRANA): A  
REVIEW STUDY****Dr. Omkar Gharat<sup>\*1</sup>, Dr. Sumedh Wasnik<sup>2</sup>, Dr. Mahesh Joshi<sup>3</sup>, Dr. Anuradha Tirmane<sup>4</sup>**<sup>1</sup>Post Graduation Scholar at Shalyatantra Department, PMTs Ayurved College, Shevgaon, Ahmednagar.<sup>2</sup>HOD and Professor of Shalyatantra PMTs Ayurved College, Shevgaon, Ahmednagar.<sup>3,4</sup>Associate Professor of Shalyatantra, PMTs Ayurved College, Shevgaon, Ahmednagar.**\*Corresponding Author: Dr. Omkar Gharat**

Post Graduation Scholar at Shalyatantra Department, PMTs Ayurved College, Shevgaon, Ahmednagar.

DOI: <https://doi.org/10.5281/zenodo.20526173>**How to cite this Article:** Dr. Omkar Gharat<sup>\*1</sup>, Dr. Sumedh Wasnik<sup>2</sup>, Dr. Mahesh Joshi<sup>3</sup>, Dr. Anuradha Tirmane<sup>4</sup>. (2026). Ayurvedic Management of Pilonidal Sinus (Shalyaja Nadi Vrana): A Review Study. World Journal of Pharmaceutical and Medical Research, 12(6), 459-461.

This work is licensed under Creative Commons Attribution 4.0 International license.



Article Received on 05/05/2026

Article Revised on 25/05/2026

Article Published on 03/06/2026

**ABSTRACT**

Pilonidal sinus disease is a chronic acquired disorder of the sacrococcygeal region that causes considerable morbidity and increases healthcare expenditure. Numerous surgical and conservative treatment methods have been proposed, yet no single modality has achieved universal acceptance. The condition commonly develops in the natal cleft due to the accumulation of loose hair within hair follicles, leading to chronic sinus formation with occasional acute flare-ups. Patients usually present with classical signs of inflammation such as pain, swelling, redness, increased local temperature, and purulent or serous discharge from the sinus tract. Risk factors including prolonged sitting, obesity, a deep natal cleft, repeated local irritation by hair, and positive family history contribute to the development of the disease. In Ayurvedic literature, pilonidal sinus can be correlated with *Nadi Vrana*. Acharya Sushruta has described eight varieties of *Nadi Vrana*, among which pilonidal sinus may be classified under *Shalyaja Nadi Vrana*.

**INTRODUCTION**

Pilonidal sinus is a chronic inflammatory condition characterized by the presence of one or more midline openings in the intergluteal cleft, situated posterior to the anal canal and commonly containing hair nests.<sup>[1]</sup> Although it predominantly affects the sacrococcygeal region, pilonidal sinus may also occur in areas such as the axilla, groin, interdigital spaces of the hands or feet, and occipital region. The development of the disease is strongly associated with factors such as a deep natal cleft and the accumulation of loose hair within the cleft. The deep cleft creates a suitable environment for sweating, maceration, bacterial growth, and penetration of hair into the skin, thereby promoting sinus formation.<sup>[2-3]</sup> The embedded hair acts as a foreign body, triggering chronic inflammatory reaction and resulting in the formation of primary midline pits, which may later become secondarily infected.<sup>[4-5]</sup>

Clinically, postanal pilonidal sinus may present in different forms, including an acute pilonidal abscess,

an asymptomatic pit, a painless swelling, or a discharging sinus associated with pain and inflammation. Chronic disease is typically identified by one or more epithelial-lined midline pits at the base of the natal cleft, often containing visible hair fragments. Secondary lateral openings may also develop and can discharge pus or blood due to granulation tissue formation. In cases where multiple secondary openings are present, branching sinus tracts are usually indicated. Various treatment approaches have been employed for the management of pilonidal disease, such as shaving, incision and drainage, phenol therapy, cryosurgery, excision with primary closure, open wound management, marsupialization, and flap reconstruction techniques.<sup>[6-9]</sup>

**MATERIALS AND METHODS**

The present review was compiled using references obtained from classical Ayurvedic scriptures, modern surgical and medical textbooks, published research articles, journals, and reliable internet sources.

### Ayurvedic Concept

In Ayurveda, pilonidal sinus is considered comparable to *Nadi Vrana* of *Shalyaja* origin, as it develops due to the retention of foreign material within the tissue. The term *Shalya* refers to substances such as hair, pus, slough, or unhealthy granulation tissue that remain embedded in the tract and prevent proper healing. Because of these retained materials, a chronic sinus passage develops with recurrent discharge and inflammation, which closely resembles the pathology of pilonidal sinus described in contemporary medicine.

### Nidana (Aetiology)

Ayurvedic texts describe *Nadi Vrana* as a condition that may arise due to improper management of an abscess, particularly when an unripe or immature swelling (*Apakva Vrana Shopha*) is surgically opened before complete suppuration. The condition is further aggravated by unhealthy dietary habits and faulty lifestyle practices (*Ahita Ahara-Vihara*). Retention of *Shalya* (foreign material) within the tissue is also considered an important causative factor responsible for the development of the sinus tract.

### Samprapti (Pathogenesis)

According to Ayurveda, prolonged retention of a foreign body (*Shalya*) inside the body initiates chronic inflammation and results in the formation of a narrow tract or passage. Over time, this tract progresses towards the skin and opens externally. The lesion is characterized by continuous discharge of pus, often mixed with blood and frothy in nature, accompanied by pain and discomfort that increases with movement of the affected area. This pathological condition is termed *Shalyaja Nadi Vrana* in Ayurvedic science.

### Types of Nadi Vrana

According to Sushruta, *Nadi Vrana* is classified into eight varieties: *Vataja*, *Pittaja*, *Kaphaja*, *Vata- Pittaja*, *Pitta-Kaphaja*, *Vata-Kaphaja*, *Sannipataja*, and *Shalyaja* (also known as *Agantuja Nadi Vrana*). However, Vagbhata described five principal types based on the predominance of *Vata*, *Pitta*, *Kapha*, *Sannipata*, and *Sahaja* factors.

### Ayurvedic Management of Nadi Vrana

Ayurvedic management of *Nadi Vrana* includes both surgical and para-surgical approaches. Sushruta has elaborated the principles of *Samanya Chikitsa* (general treatment) as well as specific therapies for different varieties of *Nadi Vrana*. The use of *Pratisaraniya Kshara* (alkaline cauterization) is recommended as a common therapeutic measure for chronic sinus tracts. Similarly, *Bhedana Karma* (incision and drainage) is advised for opening the tract, while *Chedana Karma* (excision) is indicated when a foreign body (*Shalya*) is lodged within deeper tissues.

### Kshara Karma

*Kshara Karma* is a para-surgical procedure in Ayurveda in which therapeutic actions such as *Bhedana* (incision), *Chedana* (excision), and *Lekhana* (scraping) are performed using specially prepared alkaline formulations known as *Kshara*. During the procedure, the patient is placed in the prone position, and the sinus tract is carefully probed to assess its direction and extent. An elliptical incision is then made around the pilonidal sinus, and the entire tract is excised up to the presacral fascia.

Following excision, *Pratisaraniya Kshara* is applied over the operative area to facilitate cleansing and destruction of unhealthy tissue. The alkali is retained for approximately one minute (*100 Matra Kala*), after which the wound is washed with *Jambeera Swarasa* (lime juice) to neutralize the action of *Kshara*. Postoperatively, regular wound dressing is carried out daily until complete healing of the surgical site is achieved.

### Kshara Sutra

*Kshara Sutra* therapy is a specialized Ayurvedic para-surgical technique that combines mechanical pressure with the chemical action of medicated thread for gradual excision and healing of the sinus tract. Sushruta recommended this therapy in *Nadi Vrana*, particularly in debilitated or apprehensive patients and in lesions located near vital structures (*Marma Sthana*). In this procedure, the tract is first explored with a probe until its blind end is identified, following which an external opening is created if necessary. The medicated *Kshara Sutra* is then passed through the tract with the help of the probe and tied appropriately. The thread exerts continuous cutting, draining, and healing action on the tract. Periodic replacement of the *Kshara Sutra*, generally once weekly, is continued until the entire sinus tract is gradually cut through and healed completely.

### CONCLUSION

Pilonidal sinus disease remains a challenging condition to manage due to its chronic nature and tendency for recurrence. Although both open and closed surgical techniques are widely practiced, the recurrence rates reported with these methods do not show significant variation. Ayurvedic para-surgical procedures such as *Kshara Karma* and *Kshara Sutra* therapy appear to provide better outcomes with comparatively lower chances of recurrence, as they facilitate thorough scraping and cleansing of the sinus tract along with adjacent pits. The alkaline properties of *Kshara* contribute to its anti-inflammatory and antimicrobial effects, thereby promoting effective wound healing. In addition, regular local hair removal and maintenance of hygiene through sitz bath therapy are important supportive measures that help reduce the likelihood of disease recurrence.

**REFERENCE**

1. Sondenaa K, Pollard ML. Histology of chronic pilonidal sinus. *Acta Pathologica Microbiologica Et Immunologica Scandinavica*, 1995; 103: 267-272. <http://dx.doi.org/10.1111/j.1699-0463.1995.tb01105.x>
2. Schoeller T, Wechselberger G, Otto A, et al. Definite surgical treatment of complicated recurrent pilonidal disease with a modified fascio-cutaneous V-Y advancement flap. *Surgery*, 1997; 121: 258–263. [http://dx.doi.org/10.1016/S0039-6060\(97\)90354-8](http://dx.doi.org/10.1016/S0039-6060(97)90354-8)
3. Bascom J. Pilonidal disease: origin from follicles of hairs and results of follicle removal as treatment. *Surgery*, 1980; 87: 567–572.
4. Patey DH, Scarff RW. Pathology of post-anal pilonidal sinus; its bearing on treatment. *Lancet*, 1946; 2: 484–486. [http://dx.doi.org/10.1016/S0140-6736\(46\)91756-4](http://dx.doi.org/10.1016/S0140-6736(46)91756-4)
5. Hull TL, Wu J. Pilonidal disease. *Surgical Clinics of North America*, 2002; 82: 1169–1185. [http://dx.doi.org/10.1016/S0039-6109\(02\)00062-2](http://dx.doi.org/10.1016/S0039-6109(02)00062-2)
6. Arumugam PJ, Chandrasekaran TV, Morgan AR, et al. The rhomboid flap for pilonidal disease. *Colorectal Disease*, 2003; 5: 218–221. <http://dx.doi.org/10.1046/j.1463-1318.2003.00435.x>
7. Yilmaz S, Kirimlioglu V, Katz D. Role of simple V-Y advancement flap in the treatment of complicated pilonidal sinus. *European Journal of Surgery*, 2000; 166: 269–272. <http://dx.doi.org/10.1080/110241500750009410>
8. Cubukcu A, Gonullu NN, Paksoy M, et al. The role of obesity on the recurrence of pilonidal sinus disease in patients, who were treated by excision and Limberg flap transposition. *International Journal of Colorectal Disease*, 2000; 15: 173–175. <http://dx.doi.org/10.1007/s003840000212>
9. Quinodoz PD, Chilcott M, Grolleau JL, et al. Surgical treatment of sacrococcygeal pilonidal sinus disease by excision and skin flaps: the Toulouse experience.