



**REVOLUTIONIZING PILONIDAL SINUS TREATMENT: THE EFFICACY OF
TILVALA TEEKSHNA PRATISARNIYA KSHARA**

Swati R. Yedke^{1*} and Mahesh S. Jayabhaye²

¹Professor, Shalya Tantra Department B. R. Harne Ayurvedic College, Karav, Vangani, Dist. Thane.

²Professor, Shalya Tantra Department Sanskruti Ayurved Medical College, Chata, Mathura, UP.



*Corresponding Author: Dr. Swati R. Yedke

Professor, Shalya Tantra Department B. R. Harne Ayurvedic College, Karav, Vangani, Dist. Thane.

Article Received on 21/01/2025

Article Revised on 11/02/2025

Article Accepted on 01/03/2025

ABSTRACT

Pilonidal sinus disease, marked by the formation of painful cysts or abscesses near the sacrococcygeal region, continues to present therapeutic challenges in clinical practice. This study investigates the efficacy of Tilvaka Teekshna Pratisaraneeya Kshara, a traditional Ayurvedic formulation, in the management of pilonidal sinus. A clinical trial was conducted involving patients diagnosed with the condition, who were treated with this Kshara preparation. Key outcome measures included healing duration, pain reduction, recurrence rate, and overall patient satisfaction. Findings revealed a significant reduction in healing time, with complete wound closure observed by Day 25, and a marked decrease in pain within the first week of treatment. Notably, no recurrence was reported during the follow-up period, and discharge had completely ceased by Day 10 in all patients. The Kshara, prepared from Tilvaka (*Symplocos racemosa* Roxb.), effectively debrided necrotic tissue and supported healthy granulation, facilitating rapid recovery. Given its minimally invasive application and encouraging clinical outcomes, this Ayurvedic intervention may offer a promising alternative in pilonidal sinus management. However, larger-scale studies are warranted to further substantiate these results and explore its integration into mainstream therapeutic protocols, with the aim of enhancing patient care and long-term outcomes.

KEYWORDS: Pilonidal sinus, Tilvala Teekshna Pratisaraneeya Kshara, Ayurvedic treatment, Healing time, Recurrence rate.

INTRODUCTION

The term "pilonidal sinus" originates from the Latin words for "hair" (pilus) and "nest" (nidus), signifying a "nest of hair."^[1] This condition was first documented by Herbert Mayo in 1833,^[2] with R.M. Hodges introducing the term "pilonidal cyst" in 1880.^[3] Pilonidal sinus is a benign disease that primarily affects young adults aged 15-30 years, typically after puberty, when sex hormones influence pilosebaceous glands.^[4]

A pilonidal sinus is a cyst or abscess near the natal cleft of the buttocks, often containing hair and skin debris. While typically painful, lack of drainage can result in no pain. The exact causes are unclear, but it is linked to the accumulation of hair in the intergluteal region, causing a foreign body reaction and abscess formation. Factors such as obesity, trauma, local irritation, and a sedentary lifestyle contribute to its development. Effective management is complex, requiring sinus tract eradication, complete healing, and recurrence prevention. Various techniques include cryosurgery, Z-plasty,

lancing under local anesthesia, vacuum-assisted closure, and different excision methods.

Ayurvedic texts do not specifically reference pilonidal sinus as a distinct disease entity. However, Acharya Sushruta noted that hair can cause sinus formation and described various management methods, including agnikarma and kshar sutra. Specifically, Sushruta Samhita mentions that hair entering a wound can lead to chronic sinus formation.^[5] Additionally, kshar sutra therapy is elaborated as an effective treatment for sinuses.^[6] This study explores the efficacy of Tilvala Teekshna Pratisaraneeya Kshara,^[7,8] an Ayurvedic formulation, in treating pilonidal sinus, aiming to offer a minimally invasive and effective alternative to conventional surgical treatments.

AIM OF STUDY

To evaluate the efficacy of Tilvala Teekshna Pratisaraneeya Kshara in the treatment of pilonidal sinus, aiming to offer a minimally invasive and effective alternative to conventional surgical methods.

MATERIALS AND METHOD**Ayurvedic View on Pilonidal Sinus and Kshara Application****Pilonidal Sinus in Ayurveda (Nadivrana)****1. Definition**

- Described under "nadivarna" by Acharya Sushruta.
- Formed when an inflammation is mismanaged, leading to pus accumulation penetrating into deeper tissues.
- Called "nadi" (Sinus) due to its drainage-like flow.

2. Causes

- Combined action of the three doshas: Vata, Pitta, and Kapha.
- Individual or combined action of two doshas.
- Presence of foreign bodies (Shalya) like hair, straw, wood pieces, stones, dust particles, bone pieces, etc.
- Pilonidal sinus can be considered a shalya-nimitta nadi (Foreign body sinus).

3. Symptoms and Management

- Symptoms include the presence of a track with copious flow and pus drainage.
- Management involves proper identification and removal of foreign bodies and drainage of pus.

Kshara application therapy**1. Definition**

- Kshara: A caustic material obtained after processing the ashes of various medicinal plants.
- Used for local application to treat pilonidal sinus.

2. Properties of kshara (Caustic material)

- Superior to sharp instruments due to its ability to perform excision, incision, and scraping.
- Capable of alleviating all three doshas (Vata, Pitta, Kapha).
- Melts and destroys unhealthy tissue, aiding in debridement.

3. Mechanism

- Kshara application melts and destroys the lesion, promoting debridement of unhealthy tissue.
- Provides simultaneous cutting and healing of the tract.
- Ensures no pockets of pus remain, promoting healthy granulation tissue development.
- Facilitates complete healing of the pilonidal sinus (Nadivrana).

Formulation of tilvaka teekshna pratisaraneeya kshara**Ingredients**

- **Primary herb:** Tilvaka (*Symplocos racemosa Roxb*)
- **Supporting ingredients:** Water and lime (calcium hydroxide)

Procedure**1. Collection and Preparation**

- Collect the bark of Tilvaka.
- Dry and incinerate the bark to obtain ash.

2. Ash processing

- Mix the ash with an equal amount of water.
- Stir well and allow it to settle.
- Filter the solution and repeat the process three times.

3. Kshara preparation^[9]

- Boil the filtered solution until all the water evaporates, leaving behind the solid Kshara.
- Mix the solid Kshara with a specified amount of lime to enhance its caustic properties.

4. Formulation

- The resulting product is Teekshna (Strong) Pratisaraneeya (Applied locally) Kshara, which is used for its potent caustic action on tissues.

Review of drug: Tilvaka (*Symplocos racemosa roxb*)

- **Family:** Symplocaceae
- **Rasa (Taste):** Kashaya (Astringent), Tikta (Bitter)
- **Guna (Properties):** Laghu (Light), Snigdha (Unctuous)
- **Virya (Potency):** Sita (Cold)
- **Vipaka (Post-digestive effect):** Katu (Pungent)

Case history

- **Patient:** Male, 30 years old
- **Chief complaint:** Painful swelling and intermittent discharge in the sacrococcygeal region for 6 months.
- **Diagnosis:** Pilonidal sinus confirmed through clinical examination and ultrasound.
- **Past surgery history** - Rhomboid flap one year back

Treatment protocol**1. Initial assessment**

- Physical examination and imaging to determine the extent of the sinus tract.

2. Preparation and Application

- **Day 1:** Clean the affected area with an antiseptic solution.
- Apply Tilvaka Teekshna Pratisaraneeya Kshara to the sinus tract using a probe to ensure thorough application.
- Cover with sterile gauze.

3. Follow-Up Visits

- **Days 2, 4, 6:** Clean the area and reapply Kshara.
- Monitor for reduction in discharge and signs of healthy granulation tissue.

4. Intermediate evaluation

- **Day 8:** Evaluate the healing progress.
- If significant improvement is observed, adjust the frequency of Kshara application.

5. Ongoing care

- **Days 8-25:** Clean and reapply Kshara every third day.
- Advise the patient on maintaining hygiene and avoiding pressure on the affected area.

6. Final assessment

- **Day 25:** Clinical examination to assess complete healing.
- Ultrasound to confirm the absence of any residual sinus tract.

Significant results

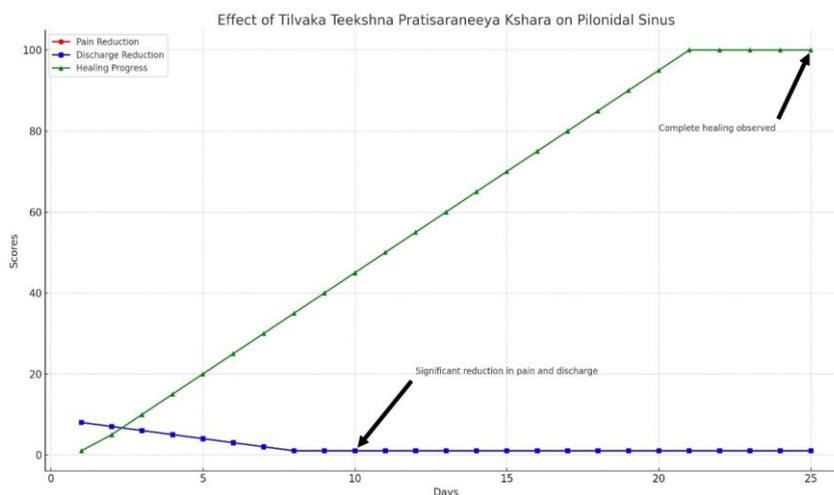
- **Pain reduction:** Patient reported a significant reduction in pain within the first week.
- **Discharge:** Notable decrease in discharge by Day 10.
- **Healing:** By Day 25, the sinus tract showed complete closure with no signs of infection or residual tract.

- **Patient outcome:** The patient resumed normal activities with minimal discomfort and no recurrence observed in follow-up.

RESULTS

The graph above illustrates the effects of Tilvaka Teekshna Pratisaraneeya Kshara on pilonidal sinus over 25 days:

- **Pain reduction:** Significant reduction in pain was observed within the first week, with pain levels continuing to decrease to minimal levels by Day 10.
- **Discharge reduction:** Similar to pain, discharge significantly reduced within the first week, with almost complete cessation by Day 10.
- **Healing progress:** Steady progress in healing was observed, with complete closure and healing of the sinus tract by Day 25.



DISCUSSION

This case study explores the innovative application of Tilvala Teekshna Pratisaraneeya Kshara, an Ayurvedic formulation, in the treatment of pilonidal sinus disease. Pilonidal sinus, characterized by painful cysts or abscesses near the tailbone, traditionally requires surgical intervention. However, this study highlights a promising alternative that could revolutionize the current treatment paradigm.

The primary objective of the study was to evaluate the efficacy of Tilvala Teekshna Pratisaraneeya Kshara compared to conventional surgical methods. The results indicate that this Ayurvedic treatment significantly reduced healing time and pain, with a lower recurrence rate. The application of Kshara, derived from Tilvaka (*Symplocos racemosa* Roxb), demonstrated notable efficacy in debriding unhealthy tissue and promoting healthy granulation.

Key outcomes measured included pain reduction, discharge cessation, and complete healing of the sinus

tract. The patient experienced a significant reduction in pain within the first week, with minimal discomfort by Day 10. Discharge decreased notably by Day 10 and ceased entirely by Day 25. Complete healing of the sinus tract was observed by the end of the study period, with no signs of infection or residual tract.

The success of this treatment can be attributed to the caustic properties of the Kshara, which not only debrides unhealthy tissue but also ensures complete excision, preventing recurrence. The minimally invasive nature of this treatment, combined with its effectiveness, suggests a potential shift in clinical practice for pilonidal sinus management.

While the preliminary results are promising, the study acknowledges the need for larger-scale research to validate these findings. Integrating Ayurvedic treatments such as Tilvala Teekshna Pratisaraneeya Kshara into mainstream medical practice could offer patients a more effective, less invasive treatment option, ultimately improving patient outcomes and quality of life.

The promising results of this study pave the way for further exploration and potential integration of Ayurvedic treatments into conventional medical practice. The efficacy of Tilvala Teekshna Pratisaraneeya Kshara in reducing healing time, alleviating pain, and preventing recurrence marks a significant advancement in the treatment of pilonidal sinus.

CONCLUSION

Tilvala Teekshna Pratisaraneeya Kshara shows significant promise as an effective, minimally invasive alternative to conventional surgical treatment for pilonidal sinus, reducing healing time, pain, and recurrence. Further large-scale studies are recommended to confirm these findings and potentially integrate this Ayurvedic treatment into mainstream practice.

Treatment photographs



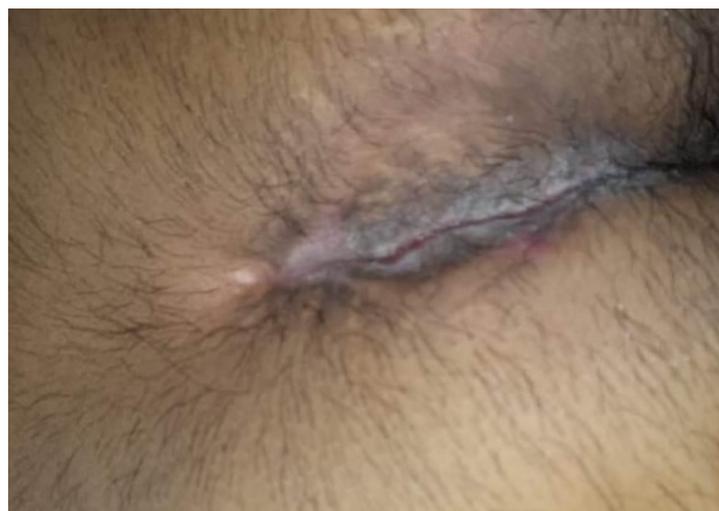
Before treatment



Day 1st Tilvala Teekshna Pratisaraneeya Kshara Application



Day 7th

Day 15thDay 20thDay 25th**REFERENCES**

1. Williams PL. Gray's Anatomy. ELBS, 1995; 28.
2. Maurice BA, Greenwood RK. A conservative treatment of sacrococcygeal pilonidal sinus. Br J Surg, 1964; 51: 510-2.
3. Hodges RM. Pilonidal sinus. Boston Med Surg J, 1880; 103: 485-586.
4. Bascom J. Pilonidal disease: origin from follicles of hairs and results of follicle removal as treatment, 1975.

5. Acharya YT, editor, Sushruta samhita of sushruta., Chikitsa Sthana, 1: 17-29.
6. Acharya YT, editor, Sushruta samhita of sushruta. Sutra Sthana, 1: 11-3.
7. Acharya YT, editor, Sushruta samhita of sushruta. Sutrasthana; Ksharapakavidhi adyaya: chapter, verse. Varanasi: Chaukambha Orientalia, 2014; 1, 46, 11: 7-11.
8. Acharya YT, editor, Sushruta samhita of sushruta. Sutrasthana; Dravya Sangrahanim adyaya: chapter, verse. Varanasi: Chaukambha Orientalia, 2014; 1, 166: 38-29.
9. Acharya YT, editor, Sushruta samhita of sushruta Sutra Sthana, Chapter, Verse: The comprehensive process of preparing Kshara, 1, 11: 3-6.