

CASE STUDY

Healing Effect of *Aragwadhadi Varthi* in Pilonidal Sinus - A Case Report

Author: Arjun Vijay¹

Co Authors: C S Sivakumar² and Aneesh S³

¹⁻³Department of Shalyatantra, Government Ayurveda College, Thiruvananthapuram, Kerala, India

ABSTRACT

Pilonidal sinus is a narrow, epithelium-lined tract located in the sacrococcygeal region, characterized by the presence of entrapped hairs and unhealthy granulation tissues. It occurs due to penetration of hairs through the skin into subcutaneous tissue, causing a spectrum of clinical presentations, ranging from asymptomatic hair containing cysts and sinuses to large symptomatic abscesses. Many surgical and para surgical treatments are available for this condition. In Ayurveda, *salyaja nadivrana* can be compared with pilonidal sinus on the basis of its etiopathogenesis, signs and symptoms. Ayurveda classics mentioned the use of *varthi* in the management of *salyaja nadivrana*, having good healing property. One among them is *Aragwadhadi varthi* mentioned in *Bhaishajya ratnavali*. In this case study, *Aragwadhadi varthi* is applied in pilonidal sinus for a period of 14 days. The effect of *varthi* was assessed by subjective and objective parameters on 0th, 7th, 14th day. Patient experienced significant relief from the symptoms within 14 days. No complications were reported after the procedure.

Key Words *Pilonidal sinus, Salyaja nadivrana, Aragwadhadi varthi*

Received 31st September 2024 Accepted 26th November 2024 Published 10th January 2025

INTRODUCTION

Pilonidal sinus is one of the troublesome diseases encountered in surgical practice. It is diagnosed by the finding of a characterised epithelial tract situated in the skin of the natal cleft and generally containing hair and skin debris. Incidence of pilonidal sinus is about 26 per 100,000 population¹. It occurs typically in the late teens, decreasing after age of 35 and rarely occurs after the age of 40¹. The main etiological factors are ingrown hair, buttocks friction due to prolonged sitting, congenital pilonidal dimple, excessive

sweating, obesity, poor personal hygiene and positive family history. In pilonidal sinus, typically the patient presents with a chronic sinus about the level of first piece of coccyx. A tuft of hair projects from its mouth². The treatment includes both conservative management and surgical procedures. Surgical procedure includes excision, open operation and marsupialization. As per Ayurveda classics, Pilonidal Sinus can be compared to *salyaja nadivrana* based on its pathology, signs and symptoms. In *Nadivrana*, *varthi prayoga* is explained by various acharyas.

CASE STUDY

In the context of *vrana chikilsa*, Acharya Susrutha explains *sodhana* and *ropana varthi* as one among the *shashti upakramas* in *Dwivraneeya adhyaya*. *Aragwadhadi varthi* is explained in Bhaishajya Ratnavali in *Nadivrana* context³. *Aragwadhadi varthi* consists of *Aragwadha*, *Nisa*, *Manjishtha*, *Ghritham*, *Kshoudram*, *Gomutram*³. Here we made an attempt to evaluate the efficacy of *Aragwadhadi Varthi* in Pilonidal sinus.

PATIENT INFORMATION

28 year old male patient with pain and pus discharge from natal cleft since 6 months presented in OPD, Dept of Salyatantra, Govt Ayurveda college Hospital Thiruvananthapuram. He gave a history of Z – plasty performed for pilonidal sinus one year back. As the patient followed *apathya ahara* and *vihara* (prolonged riding hours as a part of occupation), the disease reoccurred after 6months. The patient was not willing for surgery again and patient was managed with *Aragwadhadi varthi Prayoga*.

Clinical examination

Natal cleft examination

Inspection– External opening present within natal cleft

Scar mark of earlier z-plasty surgery noted.

Palpation - Induration felt along the natal cleft from external opening.

Probing - On probing, tract of 5cm length noted along the natal cleft from external opening towards the direction of anal canal.

DETAILS OF DRUG

ARAGWADHADI VARTHI

A) INGREDIENTS

1. *Aragwadha* : Cassia fistula
2. *Haridra* : Curcuma longa
3. *Manjishtha*: Rubia cordifolia
4. *Ghritha* : Cow's Ghee
5. *Kshoudram* : Honey
6. *Gomutram* : Cow's urine

B) METHOD OF PREPARATION OF ARAGWADHADI VARTHI

Powders of *aragwadha*, *haridra*, & *manjishtha*(6gm each), are mixed with *ghritha*, *kshoudra* (12gm each) and *gomutra* (192 ml). These were mixed by churning into a *kalka* form. This *kalka* is smeared over gauze, made to the shape of *varthi* and preserved in airtight container after sufficient dryness is attained³.

INTERVENTION

PURVA KARMA

Participant with pain and pus discharge as symptoms is thoroughly examined. Screening of cardiovascular and pulmonary system to assess the fitness of the patient for procedure was done. Surrounding area made aseptic with antiseptic solution. Written consent was collected from the participant before the procedure.

PRADHANA KARMA

The participant is asked to lie down in prone position on a surgical table. **As per figure 1**, lubricated copper probe was introduced through the course of sinus. **As per figure 2**, *Aragwadhadi varthi* was fully packed in the tract throughout its

CASE STUDY

whole length and sterile pad is placed. *Varthi* is removed on the next day through opposite opening of tract for the effective debridement of tract. Cleaning with sterile water was done before placing *varthi* everyday and the procedure was repeated for a period of 14 days.

After 14 days, no further intervention were done on the tract, but was observed for a follow up period of 1 month for healthy granulation tissue formation.



Figure 1 Varthi application

Step 1. Varthi tied at the end of a copper probe using suture thread

Step 2. Probing done along the length of sinus



Figure 2 Varthi inserted along the whole length of tract

PASCHATH KARMA

Varthi changed every day for a maximum period of 14 days after cleaning the part.

After 14 days, no further intervention were done on the tract, but was observed for a follow up period of 1 month for healthy granulation tissue formation.

OUTCOME VARIABLE

- The efficacy of the treatment is assessed by subjective and objective parameters mainly based on clinical observations.
- Healing process- Assessed by grading score on individual parameters like pain, discharge, and length of tract.

The outcome measures were assessed on 0th day, 14th day and during the follow up period (1 month)

GRADINGS FOR ASSESSMENT OF OUTCOME MEASURES

1. PAIN – VERBAL RATING SCALE

- Grade 0- no pain
- Grade 1- mild pain
- Grade 2- moderate pain
- Grade 3- severe pain

2. DISCHARGE

- Grade 0 – no discharge
- Grade 1 – mild discharge
- Grade 2 – moderate discharge
- Grade 3 – profuse discharge

3. LENGTH OF TRACT

Measured in cm using a probe.

ASSESSMENT OF OUTCOME MEASURES AFTER 14 DAYS

CASE STUDY

Pain was reduced from severe pain (Grade 3) on 0th day to no pain (Grade 0) on 14th day.

Pus discharge reduces from Moderate discharge (Grade 2) on 0th day to No discharge (Grade 0) on 14th day.

There was no reoccurrence of pain and pus discharge after follow up period of 1 month.

Length of tract remains same throughout the assessment period, but complete obliteration of tract was found after a follow up of 1 month.



Figure 3 After follow up

DISCUSSION

There was a significant change in pain and pus discharge in the participant during the assessment period of 14 days. Even though the length of tract remains same throughout the 14 days, there was complete obliteration of tract observed after the follow up period of 1 month.

This *varthi* due to its *teekshna*, *sukshma*, *sara*, *vrana* & *krimighna* properties act as a local debriding agent and keeps the tract clean and devoid of purulent discharge. Its *laghu* and *sukshma guna* enable it to penetrate deeper into the tissues and acts against the tendency of body

towards the formation of unhealthy fibrous tissues. The presence of constituents in cow's urine like copper, urea, ammonia helps in antimicrobial activity⁴. Thus it prevents further infection and promotes healthy healing. *Kashasya*, *thiktha rasas* of drugs like *manjishta* present in *aragwadhathi varthi* facilitates *ropana karma* due to *sandhaneeya* property⁵. Drugs like *aragwadha* due to its *Madhura rasa* is having the property *sarva dhathu vardhana* which promotes healing by healthy granulation tissue formation. Honey is having *vrana sodhana – ropana* properties⁵. The *Kashaya rasa* along with *chedya* and *lekhana* property of honey helps in debridement of unhealthy granulation tissues, whereas the *Madhura rasa* and *sookshma maarganusari* (ability to permeate in microchannels) properties of honey gives nutrition to the tissues and thus helps in granulation tissue formation. *Ghritha* having *Madhura rasa*, *Snigda guna* and *sodhana ropana sandhaneeya* property might do *ropana karma* by increased fibroblastic proliferation forming fibrin network and thus helps in formation of healthy granulation tissues⁶. Continuous application and removal of *varthi* along with sterile water irrigation daily helped in mechanical debridement as it washes away the exudates and unhealthy tissues from the tract. Tube in tract method is a modern method to manage sinus wounds, in which the external opening is kept open by keeping a tube in the external opening⁷. This method facilitates the drainage of pus in the tract and prevents false

January 10th 2025 Volume 22, Issue 1 Page 119

CASE STUDY

healing in the sinus, which further results in the complete healing of the tract⁷. Placing *varthi* through out the length of the tract substantiates the process of drainage from the tract, prevents false healing and thus results in healing of tract during the follow up. This minimally invasive procedure can be a solution for excruciating pain, pus discharge and can cut down the healing period without inducing injury to the healthy tissues.

CONCLUSION

Aragwadhadi varthi prayoga has good potential in the management of pilonidal sinus. From the above case study, it can be concluded that *Aragwadhadi varthi prayoga* is effective in reducing pain and pus discharge followed by complete obliteration of tract in pilonidal sinus within 5cm length.

CASE STUDY

REFERENCES

1. Johnson, E. K., Vogel, J. D., Cowan, M. L., Feingold, D. L., Steele, S. R., & Clinical Practice Guidelines Committee of the American Society of Colon and Rectal Surgeons. (2019). The American Society of Colon and Rectal Surgeons' clinical practice guidelines for the management of pilonidal disease. *Diseases of the Colon and Rectum*, 62(2), 146–157. doi: 10.1097/DCR.0000000000001323
2. Søndena, K., Andersen, E., Nesvik, I., & Søreide, J. A. (1995). Patient characteristics and symptoms in chronic pilonidal sinus disease. *International Journal of Colorectal Disease*, 10(1), 39–42. doi: 10.1007/BF00386261
3. Dasji, G. (2009). *Bhaishajya Ratnavali* (Vol. 2, pp. 780). Commentary by Vaidya Shri Ambika Datha Shastri. Choukamba Sanskrit Academy.
4. Gomutra (cow urine): A multidimensional drug review article. (n.d.). Research Gate. Retrieved September 13, 2024
5. India. Department of Indian Systems of Medicine & Homoeopathy. (2001). *The Ayurvedic pharmacopoeia of India* (1st ed., Vol. 1, 3). New Delhi, India: Government of India, Ministry of Health and Family Welfare.
6. Vagbhata. (Updated 3rd ed.). (T. Sreekumar, Trans.). (n.d.). *Ashtanga Hrdaya* (Vol. 1, Sutrasthana, Chapter 5, verses 35, 51, 80). Thrissur, India: Harisree Publications.
7. Garg, P. (2016). Tube in tract technique: A simple alternative to a loose draining seton in the management of complex fistula-in-ano—A video vignette. *Colorectal Disease*, 18(1), 107.