



Case Study

HEALING EFFECT OF *TAILA DAHANA* AFTER *PADANA* IN PILONIDAL SINUS

Arya Krishna.SK^{1*}, Aneesh. S², Sreelekha MP³

*1PG Scholar, ²Associate professor, ³Assistant professor, Department of Salyathantra, Government Ayurveda College, Thiruvananthapuram, Kerala, India.

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ABSTRACT

Pilonidal sinus is an epithelium lined tract, situated in sacrococcygeal region, containing hairs and unhealthy granulation tissue. The treatment includes both conservative and surgical procedures. It is highly recurrent in nature, which makes this condition more difficult to treat. In Ayurveda, it can be correlated with *Salyaja nadivrana* and treatment are *Agnikarma* (cautery), *Eshana* (probing), *Padana* (incision), *Taila daha* (cautery with oil) and *Ksharasutra. Dahana* (cautery) with *Svarjikadi taila* which is a type of *Snigdha agnikarma* (unctous cautery) after incision of pilonidal sinus tract as a one time procedure was done in a 29 year old male patient with pain, swelling and pus discharge from natal cleft. Healing was assessed by parameters like pain, granulation tissue and size of wound using grading method. Pain was much lesser, granulation tissue formation was normal and healing was improved in lesser time. The present study is to evaluate the healing effect of *Dahana* with *Svarjikadi taila* in pilonidal sinus after *eshana* and *padana* (full length incision of tract).

INTRODUCTION

Agnikarma is considered as supreme among para surgical procedures. *Taila daha* (cautery with oil) is a type of *Snigdha agnikarma* (cauterization using unctuous materials). Pilonidal sinus is an epithelium lined tract, in sacrococcygeal region. Pilonidal consists of two words, Pilus-hair and Nidus-nest^[1]. It is an acquired condition caused by activities like friction and prolonged sitting, which leads to penetration of hairs through the soft and moist skin in intergluteal region into the sudoriferous glands causing inflammation and sinus formation. Observed most commonly in people aged 20-30 years, with a 6:1 male to female ratio^[2]. Symptoms of pilonidal sinus are tender swelling in natal cleft, throbbing and persistent pain, blood-stained pus discharge^[1]. The modern treatment includes conservative and surgical managements, in which surgical procedures are considered as the main intervention. Surgical procedures include excision, open operation and marsupialization. The complications includes recurrent inflammation, abscess formation, recurrence of pilonidal sinus, sacral osteomyelitis etc^[2].

In Ayurveda classics, pilonidal sinus can be compared to a type of *Nadivrana*. According to *Acharya Sushruta*, *Nadivrana* (sinus) occurs, if a *Pakvasopha* (suppurated swelling) is neglected thinking it as *Apakva* (before sappuration) or neglects a wound full of pus, then the pus will spread into deeper parts destroying *twak* (skin) and *Mamsa* (muscle). And forms a tract known as *Nadi* or *gati*.^[3] There are 5 types of *Nadivrana*^[4] (sinus), among these *Salyaja nadivrana* has more similar features of pilonidal sinus. The symptoms are burning sensation, severe pain and frothy, clear or blood mixed discharge.^[5] The treatments includes *Eshana* (probing), *Bhedana* (incision), *Padana* (incision), *Agnikarma* (cauterisation)^[6] and *Ksharasutra* therapy. But it has some drawbacks like it is painful, need long duration and needs multiple sittings for the complete cure of the diseases. *Acharya Sushruta* and *Vagbhata* indicates *Agnikarma* in *Nadivrana* (sinus), *Bhagandara* (fistula in ano) and diseases with involvement of *Twak* (skin), *Sira* (artery), *Snayu* (ligaments), *Mamsa* (muscles) and *Asthi Sandhi* (bones and joints).^[7,8]

As *Bhagandara* (fistula in ano) is also considered as *Nadiroga* (sinus) or *Gati* and having similar ethiopathology and clinical features of *Nadivrana* (sinus), its treatment principles like *Eshana* (probing), *Padana* (incision) and *Taila daha* (cauterisation with oil) explained by *Acharya Charaka*^[9] can be adopted in treatment of pilonidal

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sinus. *Acharyas* like *Sushruta* and *Vagbhata* also mentioned that, after *Agnikarma* (cauterisation), the diseases becomes *Apunarbhava* (prevent recurrence) [10,11]. Since *Agnikarma* (cauterisation) is indicated for *Nadivrana* (sinus) and to prevent its recurrence, *Taila dahana* (cauterisation with oil) which is a type of *Snigdha agnikarma* (cauterisation with unctuous material) [11] can be done in pilonidal sinus. *Svarjikadi taila* mentioned in *Nadivrana Chikitsa* of *Bhavaprakasa* [12] is used for *Snigdha agnikarma* (cauterisation with unctuous material).

Case Description

A 29 year old male patient, who is an IT worker by profession came to OPD with complaints of pain, swelling and pus discharge from natal cleft. He was asymptomatic before 1 ½ years, developed pain in natal cleft, for which he consulted an allopathic hospital and diagnosed as pilonidal sinus. There he was advised to do surgery, but he was not willing to do the surgery and took internal medications. The symptoms got worsened day by day and affected his day to day activities. So he came to our OPD for better management. In present case, healing effect of *dahana* (cauterisation with oil) with *Svarjikadi taila* after *Eshana* (probing) and *Padana* (full length incision of the tract) is assessed.

Past History: Covid positive in 2022

General Examination

General condition	Fair
Built	Moderate
Height	5'9"
Weight	68 kg
Blood pressure	110/90 mmHg
Pulse rate	74/min
Respiratory rate	14 / min
Pallor	Absent

Local Examination of Sacrococcygeal Region

• Inspection

Site- natal cleft in midline position.
 Colour of discharge – Blood tinted yellowish discharge.
 Number of openings – One
 Previously operated scar – Absent

• Palpation

Area of induration – Felt
 Local temperature – Present

• Probing

Length -6.9cm

Investigations

Blood routine, bleeding time, clotting time – Normal limits

HIV, VDRL, HCV, HbsAg- Non –reactive.

Methodology

Taila dahana with *Svarjikadi taila* was done in pilonidal sinus after complete incision of the tract for duration of two minutes on a single sitting. Dressing with *Madhu* and *Ghritha* was done for 7 days and later with *Svarjikadi taila* till complete healing. The effect *Taila dahana* with *Svarjikadi taila* after complete incision of the tract was assessed using grading score method on individual parameters like pain, granulation tissue and size of the wound. The procedure was carried out after obtaining ethical clearance from the institutional ethical committee and consent from the patient.

Svarjikadi Taila

Svarjikadi taila is mentioned in *Nadivrana Chikitsa* of *Bhavaprakasa*. [12] The *Taila* has ingredients like *Svarjika kshara*, *Saindava*, *Dantimoola*, *Nilimoola*, *Madana*, *Gomutra* and *Tila taila*. [7]

Preparation

Svarjikadi Taila [9] is prepared as per classical references with drugs like *Dantimoola*, *Nilimoola*, *Madanaphala*, *Saindava*, *Svarjika kshara* and 4 parts of *Gomutra* and *Tila taila*. It is cooked till *Sneha Sidhi lakshana*. [14]

Intervention

A patient with pilonidal sinus was subjected to *Taila dahana* using *Svarjikadi taila* after complete incision of the tract was done in a single sitting for duration of 2 minutes. Dressing with *Madhu* and *Ghritha* was done for 7 days and later with *Svarjikadi taila* till complete healing.

Poorvakarma (Pre-Operative Procedures)

- Pre-operative check-up was done to screen cardiovascular and pulmonary system to assess the fitness of the patient for procedure.
- Enema and TT immunisation was given.
- Local anesthesia after sensitivity test was given.
- Preparation of the part was done.

Pradhana Karma (Operative Procedure)

- The patient was asked to lie down in prone position on a surgical table.
- Site of application was made aseptic with antiseptic solution.
- A lubricated copper probe was introduced through the course of sinus and incision of the tract up to its full length was done using surgical blade number 11. And the sinus tract was exposed using a retractor.
- 1-2ml of *Svarjikadi taila* heated up to its boiling point and is placed over the unhealthy granulation tissue in tract using a pipette.

- Then it is wiped after 2 minutes with a cotton swab and the wound is dressed with *Madhu* (honey) and *Ghritha* (ghee).

Paschat Karma (Post-Operative Procedure)

- Patient was advised to take rest until he becomes stable.
- Daily cleaning and dressing with *Madhu* (honey) and *Ghritha* (ghee) was done for first 7 days.
- Later cleaning and dressing with *Svarjyadi taila* was done till complete wound healing.

Outcome Measures

Healing process is assessed by grading score on individual parameters like pain, granulation tissue and size of the wound.

Assessment was done on 2nd, 4th, 7th, 14th, 21st and 24th day

Pain - VR Scale

Criteria	2 nd day	4 th day	7 th day	14 th day	21 st day	24 th day
Pain	Grade 1	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0
Granulation tissue	Grade 1	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0
Size of wound (surface area)	6.9×2.6 17.94 cm ²	6.2 ×2.3 14.26 cm ²	5.6× 1.8 10.08 cm ²	3.3 ×1.1 3.63 cm ²	0.5× 0.2 0.1 cm ²	0× 0

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

Granulation Tissue

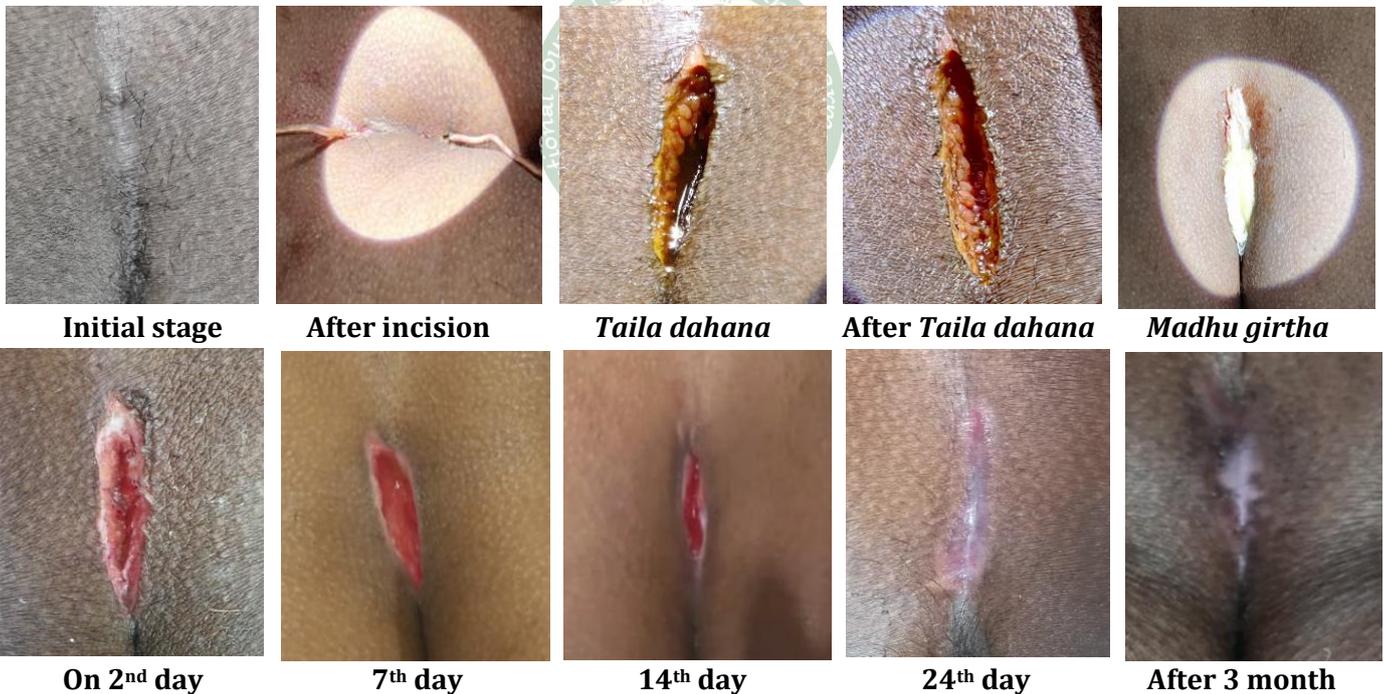
- Grade 0 – Healthy granulation tissue
- Grade 1 – Moderate granulation
- Grade 2 – Unhealthy granulation
- Grade 3 – Granulation tissue absent^[15]

Size of Wound

- Surface area = L× W ^[16]
L – Length W- Width^[17]

RESULTS

The wound completely healed by 24 days. The post operative period was uneventful. No reoccurrence was noted in the follow-up period of 1 year.



DISCUSSION

In the present study, the pain was reduced from score 1 on initial two assessment days to score 0 from 7th day onwards. The wound forms healthy granulation tissue from 7th day and the wound completely healed by 24th day. The reduction of unhealthy granulation tissue might be due to *Ksharana* and *Lekhana* property of *Swarjika kshara*. *Tila taila* may help to penetrate deeply and enhance wound healing by *Gunas* like *Vyavayi*, *Vikasi* and *Vrana ropana*. The ingredients of *Taila* are having *Kapha vata hara*

property helps to reduce pain and also its *Vrana nasana* property helps in fast healing of wound. *Taila* having more viscosity will enter blood vessels and increase blood circulation and healing *Taila daha* (cauterisation with oil) which is a type of *Snigdha agnikarma* (cauterisation with unctuous) helps in deeper tissue penetration and enhance wound healing. *Taila dahana* helps in disintegration of diseased granulation tissue. Rate of superficial tissue disintegration is high compared to other para surgical

procedures. The theory of pro-inflammation cause induction of acute inflammation and may accelerate healing. Pain may be reduced by its action on pain gate control mechanism^[18]. Thus, *Taila dahana* with *Swarjikadi taila* after complete incision of the tract is found to be effective in healing of pilonidal sinus. There were also no recurrence of the disease occurs within 1 year of follow up time.

CONCLUSION

The current modern treatments like conservative management and surgical procedures are very expensive and not successful in many cases. It has several complications like recurrence of disease, recurrent inflammation and infection, sacral osteomyelitis etc. The widely practising Ayurvedic treatments like *Eshana* (probing) and *Ksharasutra* therapy is effective, but is having some drawbacks includes painful procedure, needs long duration and multiple sittings for the complete cure of pilonidal sinus. *Taila dahana* (cauterisation with oil) with *Swarjikadi taila* after incision in pilonidal sinus can be adopted for the healing of pilonidal sinus. Comparing with conventional treatments for pilonidal sinus, *Taila dahana* (cauterisation with oil) can be considered as the advanced treatment methodology with less invasion and more convenience.

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*Address for correspondence

Dr. Arya Krishna.SK

PG Scholar,

Department of Salyathantra,
Government Ayurveda College,
Thiruvananthapuram.

Email:

dr.aryakrishnask170@gmail.com

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