



# Role of Yavakshara in the Management of Post Fistulectomy Wound – A Single Case Report

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## Abstract

**Background:** Anorectal disorders can cause discomfort and greatly affect a patient's quality of life. Faulty lifestyles, and changing diet patterns, lead to various anorectal disorders. *Bhagandara* (Fistula in ano) is such a disorder regarded as one among the *Ashtamahagadas* by *Acharyas*. *Acharya* elaborated on *Vrana*, *Dushtavrana*, and its 60 different therapeutic procedures in *Sushruta Samhita*. One of them is the *Kshara* application, a distinctive para-surgical technique that acts as a powerful debriding agent to promote the growth of healthy granulation tissue and efficient healing. The objective of the study is to know the role of the *Kshara* application in treating the post-fistulectomy wound. **Method:** In this study, the post-fistulectomy wound was treated with *Yavakshara* followed by daily cleaning and dressing with *Jathyadi ghrita* application for 14 days. The parameters like discharge, edge, floor, margin, surrounding area, bleeding, and temperature of the wound were assessed. **Result:** By the 6<sup>th</sup> day of application there were significant changes like the gradual desloughing process had started, and pus discharge was reduced. By the end of 14 days, discharge - absent, edge - not attached, floor- healthy granulation present, margin - regular, surrounding area - normal, bleeding - active bleeding present, temperature - absent. **Conclusion:** The application of *Yavakshara* was found to be effective in treating post-fistulectomy wounds with proper dressing and care by its wound-cleansing quality and debriding nature.

**Keywords:** *Dushtavrana*, Granulation, Post Fistulectomy Wound, *Vrana*, Wound, *Yavakshara*

## 1. Introduction

The word *Bhagandara* is a combination of two words “*Bhaga*” and “*Darana*”. *Bhagandara* translates to *Darana* or deformity in *Bhaga* (perineal region), *Guda* (anal region), and *Basti Pradesha* (urinary bladder), indicating the splitting or piercing of the perianal region. In the pre-suppurative stage, it is considered as *Pidika*, while *Bhagandara* is the term for the suppurative stage<sup>1</sup>. Based on the type of dosha involved, *Bhagandara* is of five types according to *Acharya Susruta*, namely *Shataponaka*, *Ushtragreeva*, *Parisravi*, *Shambookaavarta*, and *Unmargee*<sup>2</sup>. It is considered as one of the *Ashtamahagadas*<sup>3</sup>. In modern parlance, it is compared to *Fistula in ano*, which is an unhealthy track made of unhealthy granulation tissue and fibrous tissue that has an external opening in the perianal region and an

internal opening in the anal canal or rectum, as a result of an inflammatory reaction to the anal gland. *Fistulotomy* is the treatment method followed in contemporary medicine. The chances of recurrence are also present.

While explaining the *Shashtiupakramas*, *Acharya* has explained *Kshara Karma*<sup>4</sup>. It is regarded as being superior to surgical and para-surgical techniques due to its *Chedya*, *Bhedya*, *Lekhya*, *Tridoshagnatwa* and *Visheshakriyata* properties<sup>5</sup> and due to its *Ksharana* and *Kshanana* properties, it is used as a treatment modality for *Vrana*<sup>6</sup>. *Acharya Sushruta* specifically mentioned that *Vrana* with *Utsanna Katinamamsa*, *Kandu*, *Chirothitha*, and *Dushoddhya* should be cleansed by *Ksharakarma* due to debridement of slough tissue and promote quick healing<sup>7</sup>.

Granulation tissue serves as a wound filler and replaces any lost tissue as a result of trauma. It spreads

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outward from the wound's opening until the skin's surface is level with it. Bright red or dark pink, soft to the touch, moist bumpy (granular) in appearance, pulse on palpation, and painlessness are all signs of good granulation<sup>8</sup>. There are numerous factors, including chronic inflammation brought on by an infection or leftover dressing fibres, healing by secondary intention, external irritation, and recurrent use of occlusive dressings, that can lead to hypergranulation and delay the formation of healthy granulation. Modern medicine uses chemical cautery with silver nitrate, laser ablation, and surgical excision as therapy options. However, one of the major negative effects of these methods is that in addition to the hypergranulated tissue, it will also irritate and scrape off the healthy tissue beneath<sup>9</sup>. *Kshara Karma* is simple, cost-effective, less invasive and with negligible side effects. Although *Acharya* has already stated that *Yava Kshara* should be considered anytime when *Kshara* is mentioned, *Apamarga Kshara* is frequently used in anorectal diseases. Additionally, the focus of this study is also on the *Lekhana* property of *Yava* (*Hordeum vulgare* Linn). Therefore, a small attempt is made to determine *Yava Kshara's* impact in this condition.

## 2. Case Report

A 55-year-old male patient, a driver by occupation, arrived at *Shalya Tantra* OPD of Dr. D. Y. Patil Ayurved Hospital, complaining of pain and burning sensation in the anal region, along with purulent pus discharge with an unpleasant odour from the operated site.

The patient who is a known case of Diabetes mellitus for 20 years, under medication (Inj. Human Actrapid insulin 9 units TDS + Metformin 500mg BD), had undergone a fistulectomy in a private hospital 8 days prior. The patient was unable to sit or stand due to pain. He was given a course of Inj. Meropenem in the previous hospital, and the patient was taking medicines in the form of NSAIDs and analgesics as prescribed by the previous hospital at the time of consultation in the Ayurvedic Outpatient Department. Local examinations shown in Tables 1 and 2.

## 3. Plan of Treatment

*Yavakshara* application over the post-fistulectomy wound.

**Table 1.** Local examination of post-fistulectomy wound

Size	7*3*5cm
Discharge	Purulent, Foul-smelling discharge
Edge	Inflamed
Floor	Covered with unhealthy slough tissue
Margins	Irregular
Surrounding area	Oedematous
Position	Right perianal region
Bleeding	Absent
Tenderness	Present (VAS 8)
Temperature	Present

**Table 2.** Investigations

	Reading	Unit
Haemoglobin	12.4	mg/dl
White Blood Cells	12,700	mm <sup>3</sup>
Platelet	5.08	lac/mm <sup>3</sup>
Fasting Blood Sugar	238	mg/dl
Post Prandial Blood Sugar	363	mg/dl
HbA1C	11.70	
HIV	Negative	
HBsAg	Negative	

### 3.1 Timeline

The patient had complaints of fistula in ano and underwent surgery for the same on 19<sup>th</sup> March 2021. After 8 days, he developed pain, itching and burning sensation along with pus discharge from the operated site. He came to Dr. D. Y. Patil Ayurved College, *Shalya Tantra* OPD on the 9<sup>th</sup> day, i.e., 28<sup>th</sup> March for further management (Table 3).

## 4. Therapeutic Focus

Informed written consent was taken from the patient. The *Vrana* was cleaned with distilled water using sterile gauze. *Yava Kshara* was applied with *Ksharakarma Shalaka* over the *Vrana*. After waiting till 100 *Matrakala*, it was then washed with *Nimbuswarasa*<sup>10</sup>. *Jatyadi ghritha* was applied on the area where *Ksharakarma* was done. Daily cleaning and dressing of the wound with *Jatyadi ghritha* for 14 days were done. The routine post-operative protocol was followed that are *avagaha sweda* with *Shudh tankan bhasma* twice

**Table 3.** Timeline

Day	Clinical findings	Treatment
28.03.21	Discharge – +++ Tenderness –+++ Floor – Covered with unhealthy granulation tissue Margins – Irregular Surrounding area – Odematous	– <i>Avagaha Sweda</i> – <i>Chandraprabha vati</i> (3-3-3) – <i>Gandhaka rasayan</i> (2-2-2)
30.03.21	Discharge – +++ Tenderness– +++ Floor – Unhealthy granulation tissue Margins – Irregular Surrounding area- Odematous	– <i>Yavakshara</i> application (Day 1)
01.04.21	Discharge – +++ Tenderness – ++ Floor – Unhealthy granulation tissue Margins – Irregular Surrounding area - Odematous	– <i>Yavakshara</i> application (Day 3)
05.04.21	Discharge – ++ Tenderness – ++ Floor – Unhealthy granulation tissue Margins- Regular Surrounding area - Normal	– <i>Yavakshara</i> application (Day 7)
08.04.21	Discharge – + Tenderness – + Floor – Healthy granulation seen Margins – Regular Surrounding area – Normal	– <i>Yavakshara</i> application (Day 10)
12.04.21	Discharge – Absent Tenderness – Absent Floor – Healthy granulation present Margins – Regular Surrounding area – Normal	– <i>Yavakshara</i> application (Day 14)

daily from the day of admission. The medicines given were manufactured at Sudhatatva pharmacy of Dr D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune (Table 4).

## 5. Observation and Outcome

The clinical features like pain, burning sensation, pus discharge, itching, odour and tenderness were reduced, and slough tissue of the floor of the *Vrana* was debrided by the *Kshara* and turned into its *Shuddha avastha* by removing unhealthy granulation tissue, which led to the fast healing of the wound. The inflamed reddish surrounding area of the *Vrana* was gradually normalised after 14 days of treatment (Table 5).

**Table 4.** External and internal medications given

Sl. No.	Therapeutic Regimen	Dosage
1.	<i>Yavakshara</i> application	14 days
2.	<i>Avagaha sweda</i> with <i>Shudha tankan bhasma</i>	Twice a day for 16 days
3.	Tab. <i>Gandhak Rasayan</i>	2 tabs, thrice a day
4.	Tab. <i>Chandraprabha vati</i>	3 tabs, thrice a day

## 6. Discussion

*Bhagandara*, one of the *Ashtamahagada* by *Acharya Susruta*, is compared to *Fistula in ano* in contemporary medicine. In *fistulectomy*, the tract is completely excised, so that there are no infected tissues left behind. But

**Table 5.** Local examination of wound post-Kshara application

Discharge	Absent
Edge	Not attached
Floor	Healthy granulation present
Margins	Regular
Surrounding area	Normal
Bleeding	Active bleeding
Tenderness	Reduced (VAS 1)
Temperature	Absent

sometimes, there are chances of failure of surgery, which leads to infected pus discharge from the tract and pain. This is where *Ayurveda* has the upper hand. The patient with post fistulectomy wound presented with complaints similar to *Dushta Vrana* which are *Vedonarvan* (Severe pain), *Vivruta* (Wide mouthed), *Ushna* (Hot), *Daha* (Burning sensation at the site), *Paka* (Suppuration), *Puyasravaya* (Discharging pus), *Amanojnadarshana* (With ugly sight), *Kandu* (Itching), *Shopha* – (Swelling). *Acharya* has advised the use of *Ksharakarma* in *Vrana*, which are *Utsanna katina mamsa* (elevated muscular growth), *Katina* (hardness), *Kandu* (itching), *Chirothitha* (chronic) and *Dussadhya* (difficult to clean or purify) should be treated with *Kshara*<sup>11</sup>.

### 6.1 Effect on Vrana Vedana

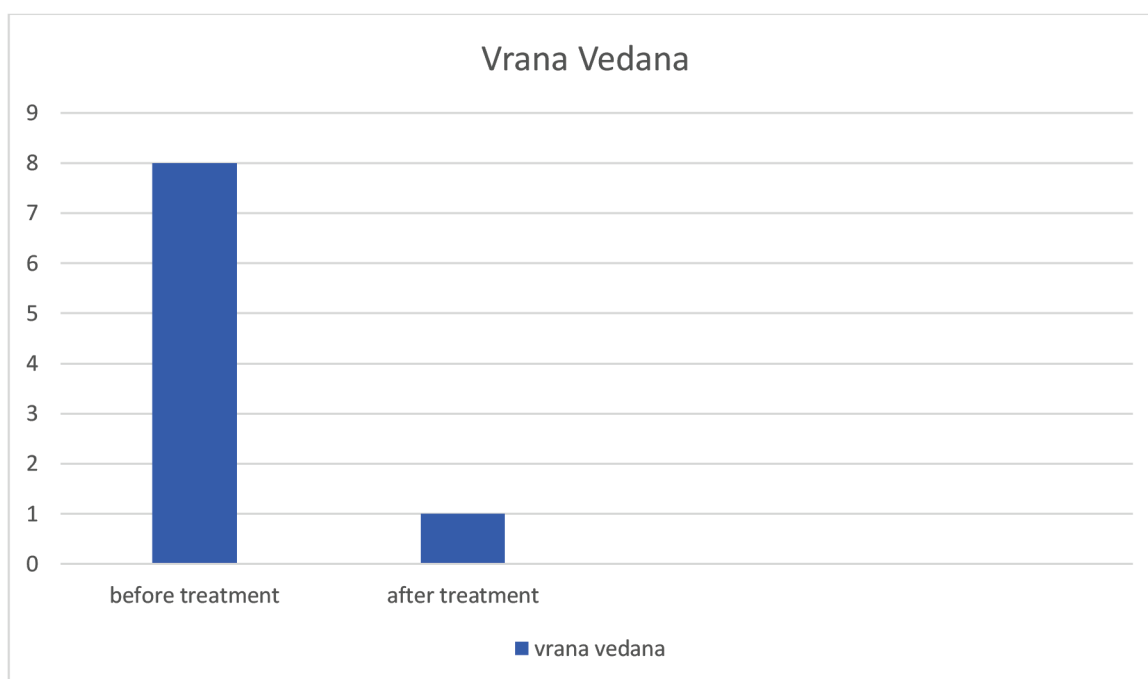
Pain and tenderness have been reduced by the end of 14 days. The VAS score was 8/10 at the time of admission. After the treatment, it has been reduced to 1/10 (Figure 1). The patient while coming to our OPD, had trouble even in standing and sitting due to pain. But following the treatment, the pain subsided, and he was able to perform his day-to-day activities. The pain was mainly due to the infection, destruction of tissue, pus collection and slough. Due to the *Tridoshagna*, *Chedana*, *Lekhana* and *Bhedana* properties of *Kshara*, the infection was reduced, thus reducing the pain.

### 6.2 Effect on Vrana Varna

*Kashaya rasa* and *Ruksha guna* absorb the *Kleda* present and ultimately do the *Lekhana karma* due to which the slough was removed and the wound bed was also cleaned.

### 6.3 Effect on Vrana Srava

At the time of admission, the patient had complained of profuse purulent discharge, which was completely reduced at the end of 14 days. This can be attributed to the *Lekhana* property of *Yava* and to the *Shoshana* and *Shodhana* properties of *Kshara*. This reduces the *srava*.

**Figure 1.** Graphical representation of pain scale (VAS) before and after treatment.



#### 6.4 Effect on *Vrana Gandha*

Foul smell and itching in the *Vrana* are basically due to the presence of infection. It was reduced after 14 days of treatment. The *Krimighna* and *Shodhana* properties of *Kshara* helped to reduce the infection and foul smell.

According to the study's findings, *Yava Kshara* can remove harmful granulation tissue due to the *Lekhana* property of both *Yava* and *Kshara*, which later on provides a healthy wound floor to heal (Figure 2). It is a very quick and minimally invasive technique that completely removes abnormal tissue. By its qualities, such as *Pachana*, *Deepana*, *Vilayana*, *Dharana*, *Shoshana*, and *Tridoshagnatwa*, among others, *Kshara* provides a quick debridement of *Vrana*<sup>12</sup>. This aids in achieving immediate *Shodhana* and subsequently

encourages the *Ropana* of the *Vrana*. Because of its *Ksharana* quality, it causes debridement. This leads us to the conclusion that *Yava Kshara* has wound-cleaning abilities and can assist in lessening the symptoms of a post-fistulectomy wound without having any negative effects. It is affordable and simple to use.

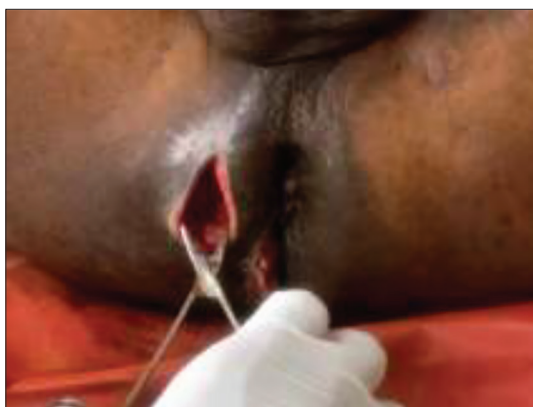
Along with *Yavakshara*, the adjuvant therapy given, i.e. *Chandraprabha vati* and *Gandhaka rasayan* also have aided in wound healing. *Chandraprabha vati* which is *Tridoshahara* but predominantly *Vata Kaphahara* helped in reducing the pus discharge. The *Guggulu* content in it helped in reducing inflammation. While studies have proven the effect of *Gandhak rasayan* in wound healing. *Gandhak rasayan* by fibroblast activation and by modulation of proteins are involved in tissue remodelling<sup>13</sup>.



MATERIALS USED



DAY 1



DAY 7



DAY 14

**Figure 2.** Pictures showing progress of wound healing.

Even after administering a high-course antibiotic like Inj. Meropenem, the complaints were not reduced. Through this case, we were able to explore whether Ayurveda has an upper hand over allopathy in treating complications from surgery by offering protection against infection, that too without suppressing innate immunity but rather by enhancing the individual's natural healing power and cutting down on post-operative recovery time. We can now say that the combination of both internal and external ayurvedic therapies was sufficient in aiding the wound to heal.

## 7. Patient's Perspective

I had undergone a fistulectomy on 19<sup>th</sup> March 2021 before admission to Ayurved Hospital and developed pain and burning sensation at the operative site along with pus discharge. The pain was severe in nature, I was unable to sit and stand, and it was hampering my day-to-day activities. So, I visited Shalya Tantra OPD of Dr. D. Y. Patil Ayurved Hospital, Pimpri, on 28<sup>th</sup> March 2021, and my primary consultant suggested *Kshara Karma* with *Yavakshara*. The result was wonderful. My complaints were reduced. I got proper relief from all my symptoms. I thank everyone from the *Shalya Tantra* Department of Dr. D. Y. Patil College of Ayurved and Research Centre for the best treatment and the utmost care I received during my stay in the hospital.

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