

# Wound Healing Effect of *Guggulu Panchapala Taila Varti* in Post-*Ksharasutra* Ulcer of Fistula-In-Ano: A Case Study

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**Abstract**—Fistula-in-ano is a tract, lined by unhealthy granulation tissues that connects anal canal to an external opening in the peri-anal skin. Formation of anal abscess when untreated leads to the fistula-in-ano that can affect the day-to-day activities of an individual. Although not fatal, this chronic illness remains highly perturbing and troublesome for the patient, often affecting the patient's quality of life. In Ayurvedic science, *ksharasutra* which is the application of medicated thread, helps in the cutting and healing of the fistulous tract. After the cutting of *ksharasutra*, the major challenge lies in the healing of ulcer at the site, as improper healing may lead to recurrence. A male patient of age 51, complaints of pain in anal region associated with swelling and pus discharge which was treated with *ksharasutra* and later the ulcer was healed by the application of *varti*. This article provides an insight in the usage of *Guggulupanchapala churna* as *taila varti* that helps in the healing of post-*ksharasutra* ulcer of fistula-in-ano through a case study. The assessment was taken using visual analogue scale and gradation for wound healing, which was done on every 7th day for 28 days or until wound heals.

**Keywords**—Fistula-in-ano, *Bhagandara*, *Guggulu panchapala taila varti*, wound healing, post-*ksharasutra*.

## I. INTRODUCTION

Fistula-in-ano, is a debilitating condition characterized by a chronic inflammatory tract, has challenged medical practitioners for centuries. While modern surgery offers a solution, it often comes with a risk of recurrence and complications. In the ancient Indian system of medicine, *Ayurveda*, a unique and highly effective para-surgical technique known as *ksharasutra* has been used for treating fistula-in-ano<sup>1</sup>. This method involves the use of a medicated thread to gradually cut and heal the fistulous tract, offering a minimally invasive approach with a high success rate. However, the healing of the resulting ulcer can sometimes be prolonged. This article delves into a case study where the post-*ksharasutra* ulcer of a fistula-in-ano patient was successfully managed and healed through the innovative application of a *Guggulu panchapala taila varti*, highlighting a novel approach to accelerate the wound healing process in this context.

### Background

The prevalence is greater in men than women, with a rate of 12.3 cases per 100,000 and 5.6 cases per 100,000, respectively<sup>2</sup>. The average age at diagnosis is 38 years, with most occurring between 20 to 40 years of age<sup>3</sup>. Obesity, diabetes, smoking, hyperlipidaemia, and a sedentary lifestyle are all risk factors for fistula formation<sup>4</sup>. Fistula-in-ano, a chronic and often recurring anorectal disorder, has been a significant challenge in both conventional and traditional medical systems. Modern surgical interventions, such as

fistulotomy and fistulectomy, while effective; carry a notable risk of complications, including damage to the anal sphincter, leading to a risk of faecal incontinence and a high rate of recurrence (up to 26.5%)<sup>5</sup>. In Ayurveda, the ancient Indian system of medicine, this condition is known as *Bhagandara*. For its treatment, *Acharya Sushruta*, the "Father of surgery," advocated a unique para-surgical procedure called *ksharasutra* therapy. This method involves the use of a specially prepared medicated thread (*ksharasutra*) that is inserted into the fistulous tract. The thread is coated with a series of *kshara* i.e alkali and herbal pastes, which allows it to simultaneously cut and heal the tract. This dual action—*chedana* and *ropana* is a key principle of the treatment<sup>6</sup>. The *ksharasutra* gradually debrides the unhealthy granulation tissue, promoting a clean wound environment and encouraging the formation of healthy new tissue. This method has a high success rate and a very low rate of recurrence and incontinence, making it a preferred choice for many patients.

### Rationale of the Study

Despite the proven efficacy of *ksharasutra* therapy, the post-procedural healing of the remaining ulcer can sometimes be a slow process. The wound, being located in a challenging anatomical area, is susceptible to infection and delayed healing due to constant contamination and movement. This study is based on the rationale of using *Guggulu panchapala taila varti*, to accelerate the healing. The formulation is derived from *Guggulu panchapala churna*, an Ayurvedic preparation traditionally used for chronic wounds, *nadivrana*, and *bhagandhara*. The key ingredients, such as *Guggulu*

(Commiphora mukul), *Pippali* (Piper longum), and *Triphala* are well-known in Ayurveda for their potent wound-healing, anti-inflammatory and antimicrobial properties mentioned in *Ashtanga hridaya*, *Uthara sthana*<sup>7</sup>. As the *varti* form allows for the direct, continuous application of the potent medicinal properties of *Guggulu panchapala* to the base of the post-*ksharasutra* ulcer. Compared to standard postoperative treatment, the components of *Guggulu panchapala taila* aid in wound *shodhana*, slough removal, and the development of healthy granulation tissue with *ropana* properties, which can greatly shorten the overall healing time of the ulcer.

II. CASE STUDY

Chief Complaint

A 51-year-old male complaints of severe pain along with tenderness and pus discharge from his peri-anal region since 1 week has visited OPD of the *Shalyatantra* dept.

History of Present Illness

The patient noticed swelling and severe pain in anal region since 1 week. The pain increased day by day and affected his daily routine. He also complaints of difficulty and pain on sitting as well as while defecating. The condition was diagnosed as *bhagandara*.

The patient is a known case of HTN since 10 years. Regular medication: NEBICARD-H (5mg) 1-0-0 A/C.

FAMILY HISTORY: Paternal history of fistula-in-ano.

PERSONAL HISTORY: Bowel habits: irregular, Appetite: Reduced, Sleep: Disturbed due to pain. BP:150/90 mm of Hg

Ano-Rectal Examination:

*Inspection:* Swelling present around 9’ o clock position at 2.5cm away from anal verge with redness and pus discharge. External opening found at 9’ o clock position, 2.5cm away from anal verge

*Palpation:* Grade 3 Tenderness present, Warmth is positive.

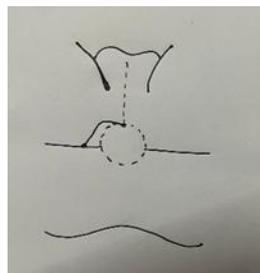
Length of the tract: 2cm.

*Investigation:*

MRI-Fistulogram-(10.6.25)

Small STIR Hyper intense fistulous tract is seen from the external opening at right peri anal region towards natal cleft extending superiorly showing an inter-sphincteric course and opening at 12 o’ clock position. Inflammatory changes at right peri anal region with irregular discontinuous fistulous tract extending antero-superiorly, extending laterally along trans-sphincteric plane reaching up to the root of penis.

Diagrammatic representation:



Treatment: Primary threading was done on 16.6.25(1<sup>st</sup> day). Thread was changed on 23.6.25 (8<sup>th</sup> day)

Thread fall-off was noted on 13.7.25(28<sup>th</sup> day of procedure). Packing was done using *Guggulu panchapala taila varti* following thread fall-off.

III. OBSERVATION AND RESULT



- Pain (visual analogue scale)<sup>8</sup>.
- Wound healing (based on Gradation for wound healing)<sup>9</sup>.

DAY	VAS	WOUND HEALING
7	7	2
14	5	1
21	4	1
28	2	0

IV. DISCUSSION

The present case study demonstrates a promising and effective approach to a common challenge in the management of fistula-in-ano: the often-prolonged healing of the post-*ksharasutra* ulcer. While the *ksharasutra* technique is a well-established and highly successful method for cutting the fistulous tract, the subsequent healing of the residual wound requires careful and consistent management. This case highlights how the local application of *Guggulu panchapala taila varti* addresses this need by significantly accelerating the healing process, thereby reducing patient discomfort and overall treatment duration.

The primary components, particularly *Guggulu* (Commiphora mukul), *Triphala*, and *Pippali* (Piper longum), possess well-documented pharmacological properties that are highly beneficial for wound management with a mild debriding effect. *Guggulu* and *Triphala* are potent anti-inflammatory agents. Their application directly to the wound bed helps to reduce local swelling and pain. Furthermore, their

antimicrobial properties help to keep the ulcer free from secondary infections, which is a major concern in the contaminated perianal region. This creates an optimal environment for tissue regeneration. The *varti* promotes the rapid growth of healthy granulation tissue from the base of the ulcer. The presence of *triphala*, rich in tannins and other bio-active compounds, aids in accelerating the epithelialization process, leading to faster closure of the wound. The choice of a *varti* as the technique of application is a critical factor in the success of this treatment. As the *varti* can be placed deep inside the fistulous tract, ensuring continuous contact of the medicinal properties helps in sustained release of the active compounds ensures maximum therapeutic effect.

#### V. CONCLUSION

In conclusion, this case study provides an evidence that the integrated use of *ksharasutra* therapy for the primary fistulous tract and the post-operative application of *Guggulu panchapala taila varti* for the residual ulcer represents an efficient treatment for fistula-in-ano. This approach not only leverages the proven benefits of a traditional surgical technique but also introduces a novel method to accelerate the crucial healing phase, leading to better patient outcomes and a significantly reduced treatment duration. While this study is based on a single case, its positive results further investigation

through larger, controlled clinical trials to validate the efficacy of this combined therapeutic approach.

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