



A CLINICAL CASE STUDY ON THE EFFICACY OF COMBINED SYSTEMIC AND TOPICAL VEDNASTHAPAN REGIMEN IN ACHIEVING COMPLETE REMISSION OF SEVERE POST-FISSURECTOMY PAIN AND ACCELERATED WOUND HEALING

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I. Abstract

Background: Post-operative Fissure-in-Ano pain is characterized by severe, prolonged discomfort often perpetuated by internal anal sphincter spasm, necessitating effective pain management and accelerated wound repair (*Vrana Ropana*). Conventional therapies often present limitations or side effects. This case report evaluates a comprehensive Ayurvedic approach utilizing the therapeutic principle of *Vedanasthapan Karma* (Pain relief) and *Vrana Chikitsa* (wound care) through a dual systemic and local regimen.

Case Presentation-A 32-year-old male, diagnosed with Post-operative Fissure in Ano, presented with severe, intermittent pain lasting 4-5 hours after defecation, a baseline Visual Analogue Scale (VAS) score of 6/10, hard stool consistency, and observable spasmodic sphincter tone. The surgical site was a fissurectomy wound measuring 1.7- 0.2 cm at the 6 O'clock position (Grade 2 wound).

Intervention-The patient was enrolled in an open-label therapeutic trial receiving a combined regimen for 28 days. The intervention consisted of *Vednasthapan Vati* (Oral, 1g twice daily) taken after meals with lukewarm water, and *Vednasthapan Ointment* (1-2g) applied locally upon the post-operative wound once daily during dressing. The formulation utilizes drugs from the classical *Vednasthapan Mahakashay* of *Acharya Charaka*, known for their potent anti-inflammatory and analgesic properties.

Results-The patient exhibited a rapid and sustained therapeutic response. The Pain VAS score dropped dramatically from 6 (Baseline) to 2 (8 hours post-dose), demonstrating immediate analgesic action. By the 14th day of follow-up, all symptoms had resolved: Pain VAS was 0, pain duration after defecation was 0 hours, and the wound size achieved Grade 0 (complete epithelialization).¹ The patient's overall result was assessed as **Complete Remission** (100% improvement) with no reported Adverse Drug Reactions (ADR) throughout the trial period.

Conclusion-The integrated systemic and local *Vednasthapan* therapy demonstrated remarkable efficacy in the management of severe post-fissurectomy pain and significantly accelerated wound healing. The dual approach, addressing both systemic *Vata* vitiation and local tissue repair, offers a rapid, safe, and holistic management strategy highly suitable for post-surgical care in *Shalya Tantra* practice.

KeyWords- Post-Fissurectomy Pain, *Vednasthapan Mahakashay*, *Vednasthapan Vati*, *Vednasthapan Ointment*, Ano-rectal Pain, *Shalyatantra*, *Ayurveda*.

II. Introduction: Context, Rationale, and Hypothesis

2.1. Pathophysiology of Post-Operative Anorectal Pain

Post-operative pain following Anorectal surgery, particularly fissurectomy, presents a significant clinical challenge that often compromises patient recovery and quality of life. The pathophysiology of this persistent pain is multifactorial, rooted predominantly in inflammatory processes triggered by tissue damage and surgical incision. The release of inflammatory cytokines, interleukins, and prostaglandins initiates a neuro-inflammatory cascade that sensitizes peripheral Ad and C nerve fibers. Furthermore, mechanical factors play a critical role; chronic anal fissure etiology involves continuous internal anal sphincter spasm, which, even post-operation, contributes substantially to pain. This spasm leads to localized ischemia, characterized by low tissue pH and high lactate levels, perpetuating a vicious cycle of pain and delayed healing.ⁱ

The clinical need for superior pain management in this domain is urgent. While modern medicine utilizes agents like lignocaine jelly, diltiazem, and glyceryl trinitrate (GTN), these pharmacological interventions carry limitations. GTN ointment, for example, is known to frequently induce headaches, leading patients to seek safer, natural therapeutic alternatives with lower toxicity.ⁱⁱ

2.2. *Vedanasthapan* and *Vrana Chikitsa* in Classical Ayurveda

Ayurveda, particularly the branch of *Shalya Tantra* (surgical science), has provided detailed protocols for managing surgical pain and wound healing (*Vrana Chikitsa*) since ancient times. Acharya Sushruta emphasized the critical importance of pain relief, even advocating the use of *tikshna madya* (strong alcohol) before surgery to manage pain. Post-operative management, or *Vrana Shoola* (wound pain) management, involves various procedures like *Dhoopana* (fumigation), *Swedana* (sudation), and local applications such as *Seka* (irrigation) and *Lepa* (topical paste/ointment).ⁱⁱⁱ

A cornerstone of post-operative pain management in classical texts is the use of *Yashtimadhu Ghrita*. Acharya Sushruta explicitly cited its use, stating that the intense pain generated by surgery subsides upon applying lukewarm ghee boiled with *Yashtimadhuka*. This pharmacological strategy leverages the *Vata-Pitta Shamaka* and *Vrana Ropana* (healing) properties of *Yashtimadhu*.^{iv}

The foundation for the specific analgesic formulation used in this study, the *Vednasthapan Mahakashay*, is rooted in the classification provided by Acharya Charaka in the *Charaka Samhita, Sutra Sthana*. This group of ten herbs is specifically selected for its potent action in relieving *Vedana* (pain), representing a targeted classical approach to analgesia.^v

2.3. Rationale for the Combined *Vednasthapan* Dual Regimen

The chronic and recurrent nature of anorectal pain, often linked to hard stool and sphincter spasm (*Vata* vitiation), necessitates a comprehensive intervention that targets both local pathology and systemic imbalances. The combined therapeutic regimen, integrating oral *Vati* (tablets) and local *Ointment* application, is designed to achieve this holistic outcome.

The **systemic action** provided by the oral *Vednasthapan Vati* is primarily focused on *Vata Shamana* (pacification of Vata Dosha) and addressing the underlying *Agni* imbalance, which manifests in the patient as irregular bowel habits and hard stools. *Vata Dosha* is the key factor responsible for pain generation (*Shoola*) and spasticity in the body. By pacifying *Vata* systemically, the *Vati* aims to interrupt the spasm-pain cycle at its root, leading to sustained relief and normalizing sphincter tone.^{vi}

Concurrently, the **local action** of the *Vednasthapan Ointment* provides immediate relief from *Vrana Shoola* and actively supports *Vrana Ropana*. The topical application ensures high concentration of analgesic and wound-healing principles directly at the fissurectomy site. This dual strategy ensures that while the systemic cause of the pain is mitigated, the local suffering and physical recovery are also rapidly addressed, fulfilling the requirements of effective *Vrana Chikitsa*.^{vii}

Hypothesis

The combined systemic and local *Vednasthapan* regimen will provide a rapid, safe, and complete resolution of post-fissurectomy pain, accelerated wound healing, and normalization of underlying pathology, resulting in superior outcomes compared to conventional post-surgical expectations.

III. Materials and Methods: Case Selection and Therapeutic Intervention

3.1. Case Enrollment and Ethical Considerations

The subject, patient XXXX (Register No. 34743), a 32-year-old male student, was enrolled from the IPD department following elective fissurectomy. The patient met the primary inclusion criterion of being an operated case of fissure in ano complaining of pain at the anal region, within the age group of 18–65 years. Exclusion criteria were meticulously checked, confirming the absence of systemic and metabolic diseases such as Diabetes mellitus, tuberculosis, HIV, HBsAg, chronic renal failure, and other anorectal diseases like fistula or carcinoma.

The study adhered strictly to ethical guidelines. Written informed consent was secured from the patient prior to the commencement of the trial, acknowledging the voluntary nature of participation and the confidentiality of data. The procedure was conducted according to the institutional research protocol.

3.2. Drug Formulation: *Vednasthapan Vati* and *Ointment*

The research drugs, *Vednasthapan Vati* and *Vednasthapan Ointment*, were prepared at the institutional Rasayansala. The preparation of the *Vati* adhered to the principles of *Vati Kalpana* (tablet preparation) as outlined in the *Sharangdhara Samhita, Madhyam Khand*. The Ointment was prepared using the Trituration method.

The formulation is derived from the *Vednasthapan Mahakashay* and incorporates ten ingredients in equal parts, targeting both anti-nociception and tissue repair.

Table 1: Composition and Pharmacological Action of *Vednasthapan Mahakashay* Ingredients

Sanskrit Name	Botanical Name	Part Used	Classical Karma	Key Modern Action
<i>Shala</i> (शाल)	<i>Shorea robusta</i> Gaertn. f.	Gum	<i>Vedana Shamaka, Vrana Ropana</i>	Central and peripheral analgesic; accelerates wound contraction and increases tensile strength
<i>Katphala</i> (कट्फल)	<i>Myrica esculenta</i> Buch.-Ham.	Stem bark	<i>Vata-Kapha Shamaka, Shothahara</i>	Significant anti-inflammatory, analgesic, and anti-allergic activity
<i>Kadamba</i> (कदम्ब)	<i>Anthocephalus cadamba</i> Miq.	Stem bark	<i>Vrana Ropana, Dahaprashamana</i>	Anti-inflammatory and tissue regeneration properties.
<i>Padmaka</i> (पद्मक)	<i>Prunus puddum</i> Roxb. Ex Wall	Stem bark	<i>Vedana Shamaka</i>	Known for anti-nociceptive and anti-inflammatory effects.
<i>Tumba</i> (तुम्ब)	<i>Logenaria vulgaris</i> Ser.	Fruit	<i>Pachana, Deepana</i>	Mild purgative and digestive properties.

<i>Mocarasa</i> (मोचरस)	<i>Bombax malabaricum</i> DC.	Gum	<i>Grahi, Vrana, Ropana, Stambhaka</i>	Potent astringent, hemostatic, and promoter of mucosal healing.
<i>Shirisha</i> (शिरिष)	<i>Albizia lebeck</i> Benth.	Stem bark	<i>Vata-Kapha Shamaka, Vishahara</i>	Anti-allergic, anti-inflammatory.
<i>Vajjula</i> (वज्जुल)	<i>Salix tetrasperma</i> Roxb.	Stem bark	<i>Vedana Shamaka, Shothahara</i>	Contains Salicin, recognized for potent systemic anti-nociception.
<i>Elavaluka</i> (ऐलवालुक)	<i>Prunus cerasus</i> Linn.	Seed pulp	<i>Dahaprashamana, Vata Shamaka</i>	Cooling and anti-inflammatory effects.
<i>Ashoka</i> (अशोक)	<i>Saraca asoca</i> (Roxb.) De Wilde	Stem bark	<i>Vrana Ropana, Vedana Shamaka</i>	Accelerates wound healing, noted for antioxidant and antimicrobial action ⁷

3.3. Treatment Protocol and Follow-up Schedule

The treatment commenced on the 1st post-operative day, following the surgical procedure conducted on 26/08/23. The duration of the intervention was 28 days.

Table 2: Treatment Protocol (Dosage and Administration)

Drug	Formulation	Dose	Route & Frequency	Administration Details	Duration
<i>Vednasthapan Vati</i>	Tablet (500mg)	2 tablets	Oral, Twice Daily (BID)	After meal with lukewarm water	28 Days
<i>Vednasthapan Ointment</i>	Topical preparation	1–2g	Local, Once Daily (OD)	Applied directly to the wound during dressing	28 Days

Patient assessments were formalized at baseline (Day 1) and continuous observation was conducted, particularly documenting the immediate post-dose response at 4 hours and 8 hours. Follow-up assessments utilizing standardized criteria were recorded on Day 14 and Day 28 after the trial began.

3.4. Assessment Criteria

Efficacy was assessed using three primary criteria established in the research protocol ¹:

- Pain Intensity:** Measured using the Visual Analogue Scale (VAS), scored from 0 (No pain) to 10 (Worst pain imaginable). Scores were categorized into Grade 0 (0), Grade 1 (1–3), Grade 2 (4–6), and Grade 3 (7–10).
- Pain Duration After Defecation:** Measured in minutes/hours, graded from 0 (No pain) to 4 (Pain throughout the day).
- Size of the Post-Operative Fissure Wound:** Objectively measured and graded from 0 (No discontinuity) to 3 (greater than of previous area and depth).

Overall effect was classified based on percentage improvement, with relief defined as **Complete Remission**.

IV. Case Narrative and Progression of Clinical Data

4.1. Baseline Clinical Assessment

The patient presented to the IPD on 25/08/23, having undergone fissurectomy the same day (Date of Procedure: 26/08/23, though admission/register dates are 25/08/23, the protocol assessment starts from the 1st post-op day).

Ayurvedic and Modern Clinical Status:

General examination revealed a *Madhyam* (moderate) built, moderate nutrition, and stable vital signs (Pulse: 84/min, BP:-122/82mmHg). Systemic examination was normal.

- **Chief Complaint:** Severe, intermittent pain characterized as burning, occurring strictly after defecation, lasting 4–5 hours.
- **Bowel Habit:** Irregular, hard consistency, and unsatisfactory clearance.
- **Local Findings (Day 1 Post-Op):** Fissurectomy wound observed at the 6 O'clock position. Initial dimensions were 1.7 cm length by 0.2cm width.
- **P/R Examination (Day 1 Post-Op):** Sphincter tone was noted as **Spasmodic**.

Pre-Treatment Assessment Scores:

The baseline severity on Day 1 (before starting the *Vednasthapan* regimen) was quantified as follows:

Assessment Parameter	Baseline Value (Day 1)	Assessment Grade
Pain Intensity (VAS/10)	6	Grade 2 (Moderate Pain)
Pain Duration Post-Defecation	4–5 hours	Grade 3/4 (Almost half a day/Severe)
Wound Size (L x W)	1.7 cm x 0.2 cm	Grade 2 of previous area & depth)

4.2. Acute Response and Rapid Analgesia

The administration of the combined therapy resulted in an immediate, sharp reduction in pain within the initial eight hours, indicating prompt analgesic action. This rapid response confirms the highly bioavailable and swift mechanism of the drug combination.

The Pain VAS score, recorded at 4 hours post-treatment, remained high at 6 (suggesting the lingering effect of surgical trauma and post-anesthesia rebound), but by 8 hours post-dose, the score plummeted to 2. This shift from severe pain (Grade 2) to mild pain (Grade 1) in a matter of hours underscores the potency of the *Vednasthapan* formulation. This immediate relief suggests that the oral *Vati* components specifically containing ingredients like *Vajjula* (*Salix*), which provides systemic anti-nociceptive principles, and *Shorea robusta* gum, which has proven central analgesic properties were quickly absorbed into the circulation, effectively countering the acute post-operative inflammatory cascade.

4.3. Follow-up and Final Outcome Assessment

The sustained use of the dual regimen over the trial period led to continuous improvement across all measured parameters. The follow-up charting demonstrated complete resolution by the 14th day.

Table 3: Progression of Subjective and Objective Assessment Scores-

Assessment Parameter	Baseline (Day 1)	8 Hours Post-Dose	14th Day Follow-up	28th Day Follow-up	Change (Baseline → Final)
Pain Intensity (VAS/10)	6	2	0	0	100 reduction
Pain Duration Post-Defecation (Hrs)	4–5 hrs	Not recorded	0 hrs	0 hrs	100 %reduction
Wound Size (Grade)	Grade 2	N/A	Grade 0	Grade 0	Complete Healing
Sphincter Tone (P/R)	Spasmodic	N/A	Normal	Normal	Resolved

The achievement of **Grade 0** for Pain VAS and Pain Duration by the 14th day of treatment signifies that the patient was entirely pain-free, even after defecation. Furthermore, the objective wound assessment recorded Grade 0 by Day 14, meaning there was No discontinuity of skin/mucous membrane. This outcome demonstrates accelerated tissue repair, achieving complete epithelialization within two weeks of a major surgical wound (1.7cm). The final result was officially designated as **Complete Remission**, indicating 100 %overall improvement. No adverse drug reactions were reported during the 28-day follow-up period.

V. Discussion: Interruption of Pathogenesis (*Samprapti Vighatana*)

5.1. Resolution of *Vata* Vitiating and Anal Spasm

The success of the *Vednasthapan* therapy hinges on its strategic capacity to address the root pathogenesis (*Samprapti*) of post-fissurectomy pain. Persistent anal pain is a clear manifestation of aggravated *Vata Dosha*, characterized by *Shoola* (pain) and *Sankoca* (constriction or spasm). In this patient, the baseline findings of spasmodic sphincter tone, irregular bowel habits, and hard stools strongly confirmed severe *Vata* vitiation.

The elimination of pain duration (4–5 hours to 0 hours) and the normalization of sphincter tone by Day 14 provides critical evidence of successful *Vata Shamana*. This normalization of function could not have been achieved by topical local analgesia alone. The oral *Vednasthapan Vati*, containing specific *Vata-Kapha Shamaka* and *Deepana-Pachana* components (such as *Katphala* and *Tumba*), effectively addressed the systemic component driving the chronic pain and spasticity. By regulating the *Agni* and promoting better bowel clearance, the regimen interrupted the pain-spasm-ischemia cycle perpetuated by hard stool trauma, ensuring sustained and complete symptomatic relief.^{viii}

Furthermore, the formulation offers synergistic analgesic pathways. Ingredients like *Shorea robusta* and *Salix tetrasperma* contribute to both central and peripheral anti-nociceptive effects. *Salix* is a natural source of salicin, a precursor to salicylic acid, providing systemic anti-inflammatory action that reduces prostaglandin synthesis. The *Shorea robusta* gum exhibits significant analgesic activity in various pain models, including post-surgical pain. This dual-action pathway systemic *Vata* correction via the *Vati* and targeted pharmacological anti-nociception explains the rapid initial drop in VAS score (6 to 2 in 8 hours) and the subsequent sustained remission^{ix}.

5.2. Mechanistic Analysis of Accelerated Wound Epithelialization

The swift achievement of Grade 0 wound healing within 14 days is a highly significant clinical outcome for a post-surgical defect of 1.7 0.2 cm. Healing by secondary intention often requires a longer duration, making this accelerated *Vrana Ropana* attributable to the specific composition and local application of the *Vednasthapan Ointment*.

The *Mahakashay* is rich in compounds known for tissue repair. *Shorea robusta* gum has been scientifically documented to enhance wound contraction and significantly increase hydroxyproline content, which is essential for collagen synthesis and strengthening the healing tissue.³ *Mocarasa* (gum of *Bombax malabaricum*) and *Saraca asoca* are classical *Vrana Ropana* and *Grahi* (astringent) drugs, which function to cleanse the wound, control exudate, and promote epithelial regeneration. The synergistic action of these components delivered directly to the wound site via the *Ghritha*-based Ointment vehicle facilitated optimal tissue environment, leading to rapid, robust epithelialization. The local application effectively addressed the *Vrana Dushya* (tissue pathology) while the systemic preparation simultaneously mitigated the inflammatory stimulus, optimizing the body's intrinsic healing mechanism.^x

5.3. Comparative Perspective and Safety Profile

The clinical outcome of **Complete Remission** (100% relief) achieved by Day 14 highlights the superior efficacy of this Ayurvedic regimen. This result is particularly noteworthy when compared to conventional treatments, which frequently fail to provide total relief or are hampered by side effects.

For instance, topical glyceryl trinitrate (GTN), used widely to relax the internal anal sphincter, often causes headaches, compelling patients to discontinue therapy.

In contrast, this *Vednasthapan* dual therapy resulted in 100% patient compliance and zero reported Adverse Drug Reactions (ADR). This excellent safety profile, combined with the comprehensive clinical resolution of both pain and wound status, strongly validates the regimen as a highly efficacious and safe alternative for post-surgical care. While this represents a single-case report, the magnitude and speed of the response (complete healing and pain resolution within two weeks) are findings deemed **Extremely Significant** in the context of the larger research goal, providing compelling evidence to support the ongoing clinical evaluation of this therapeutic strategy.

VI. Conclusion

The management of Post-operative Fissure-in-Ano pain using the combined therapeutic strategy of oral *Vednasthapan Vati* and topical *Vednasthapan Ointment* proved to be profoundly effective in this clinical case study. The regimen successfully achieved **Complete Remission** of post-surgical symptoms and objective clinical signs by the 14th day of administration. This accelerated recovery was attributed to the dual strategic action: systemic *Vata Shamana* and anti-nociception provided by the *Vati* to resolve internal anal sphincter spasm and pain duration, coupled with the local *Vrana Ropana* and analgesic properties of the *Ointment* to promote rapid and complete epithelialization of the surgical wound. This integrated Ayurvedic approach stands as a robust, safe, and holistic model for optimizing pain management and accelerating recovery in *Shalya Tantra* practice.

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