

Evaluation of Jatyadi Taila Pichu as an Intra-Anal Drug Delivery Modality in the Management of Parikartika (Acute Fissure-in-Ano): An Integrative Review with Pilot Clinical Study

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ABSTRACT

Parikartika is a painful anorectal disorder described in Ayurvedic classics and closely resembles acute fissure-in-ano. It is characterised by severe pain, bleeding, constipation, and sphincter spasm. Modern colorectal surgical literature emphasizes intra-anal topical therapy to reduce sphincter tone and improve anodermal perfusion, thereby promoting healing. Ayurveda advocates Taila Pichu as an effective Sthanika Chikitsa that provides sustained intra-anal drug delivery. Classical Ayurvedic texts also describe Pakvasaya as an important route for systemic absorption and therapeutic action of drugs through Virya, Vyavayi, and Sukshma properties. This review examines the anatomical, physiological, pharmacological, and Ayurvedic basis of Pichu and integrates pilot clinical evidence evaluating Jatyadi Taila Pichu in acute fissure-in-ano. Clinical findings demonstrated statistically significant improvement in pain, bleeding, constipation, and sphincter tone, with complete healing within 28 days. These findings validate Pichu as a safe, effective, and rational conservative treatment modality....

Keywords: N/A

How to cite this article: Balendra S, Dileep Kumar D, Rupendra C, Ranjan PP, Aakash K, Arpit P, Sewanti T., Evaluation of Jatyadi Taila Pichu as an Intra-Anal Drug Delivery Modality in the Management of Parikartika (Acute Fissure-in-Ano): An Integrative Review with Pilot Clinical Study. *Int J Drug Deliv Technol.* 2026;16(3s): 50-52; DOI: 10.25258/ijddt.16.3s.6

Source of support: Nil.

Conflict of interest: None

INTRODUCTION

Parikartika is described in Sushruta Samhita as a painful condition affecting guda sthana, characterized by kartanavat the anal canal, allowing prolonged contact of the drug with the vedana, daha, and bleeding per rectum¹. It is caused by lesion and promoting healing^{1, 8}.

vitiation of Vata and Pitta dosha affecting the anorectal region.

Clinically, Parikartika resembles acute fissure-in-ano, which is defined as a longitudinal tear in the anoderm associated with severe pain, bleeding, and internal sphincter spasm².

Modern surgical texts such as Bailey and Love's Short Practice of Surgery³, Schwartz's Principles of Surgery⁴, Sabiston Textbook of Surgery⁵, and Goligher's Surgery of the Anus, effect³.

Rectum and Colon⁶ explain that fissure persistence results from increased internal sphincter tone causing reduced anodermal blood flow and ischemia. Therefore, conservative treatment focuses on reducing sphincter tone and improving perfusion through intra-anal drug delivery.

Basis of Intra-Anal Drug Delivery

The anal canal possesses anatomical and physiological features that facilitate efficient drug delivery. The anoderm is thin and highly permeable, allowing rapid diffusion of therapeutic agents. The inferior rectal venous plexus allows systemic absorption while also providing local therapeutic

The internal sphincter lies directly beneath the anoderm, allowing local drug delivery to directly influence sphincter tone. Schouten et al. demonstrated that fissure healing is

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directly related to restoration of anodermal blood flow following reduction in sphincter pressure⁷.

Thus, sustained intra-anal drug delivery improves perfusion, reduces sphincter spasm, and promotes tissue healing.

Ayurvedic Perspective:

Ayurveda provides a detailed explanation of systemic drug absorption through the anal route. Acharya Charaka identifies Pakvasaya as the principal seat of Vata, which governs movement, transport, and circulation throughout the body⁹. Since Vata controls systemic physiological transport, medicines administered through the anal route can spread rapidly throughout the body.

Acharya Sushruta explains that drugs administered through Guda spread from Pakvasaya to the entire body through srotas, producing systemic therapeutic effects¹². This corresponds with modern understanding of venous and lymphatic absorption through rectal mucosa.

Acharya Charaka describes that drugs possessing Vyavayi guna spread throughout the body before digestion, producing rapid systemic effects¹⁰. Sneha preparations such as Jatyadi Taila possess Vyavayi property, enabling rapid systemic distribution.

Similarly, Vikasi guna facilitates tissue penetration by loosening tissue compactness, allowing drug diffusion into deeper structures¹⁰. Sukshma guna enables drugs to penetrate microchannels and reach target tissues.

Acharya Charaka emphasizes the pharmacodynamic importance of Virya: “वीर्यं पुनः क्रियाहेतुः”

(Virya is responsible for therapeutic action of drugs)¹¹

Thus, once absorbed through Pakvasaya, the Virya of Jatyadi Taila spreads through srotas and produces therapeutic effects including sphincter relaxation, pain relief, and wound healing.

Acharya Vagbhata further explains: “बस्तिः सर्वशरीरं व्याप्नोति”

(Basti spreads throughout the body)¹³

This confirms systemic absorption and distribution of drugs administered through the anal route.

These classical principles explain how Jatyadi Taila Pichu produces both local and systemic therapeutic effects.

Mechanism of Action of Jatyadi Taila Pichu:

Pichu acts as a sustained intra-anal drug delivery system. The cotton or gauze serves as a reservoir, releasing medicated oil gradually. Jatyadi Taila penetrates anoderm and underlying tissues due to its Sukshma, Vyavayi, and Vikasi properties¹⁰.

Jatyadi Taila is a classical Sneha Kalpana indicated for Vrana Shodhana and Vrana Ropana, promoting wound cleansing and healing in Parikartika. Jati (*Jasminum officinale*) facilitates wound healing by enhancing granulation and reducing microbial load. Nimba (*Azadirachta indica*) exhibits antimicrobial and anti-inflammatory properties, preventing infection and inflammation. Haridra (*Curcuma longa*) reduces inflammation and promotes tissue repair due to its antioxidant action. Daruharidra (*Berberis aristata*) supports healing by preventing microbial growth and promoting healthy tissue

formation. Patola (*Trichosanthes dioica*) reduces burning sensation and inflammation through its Pitta-shamaka effect. Karanja (*Pongamia pinnata*) promotes wound healing and prevents infection due to its antimicrobial action. Manjistha (*Rubia cordifolia*) improves local circulation and promotes healing through its Rakta Prasadana property. Tutha (purified Copper sulphate) helps in wound cleansing and removal of unhealthy tissue. Tila Taila (*Sesamum indicum* oil), the base oil, penetrates tissues due to its Sukshma and Vyavayi properties, reduces sphincter spasm, lubricates the anal canal, and enhances absorption of active constituents. Overall, Jatyadi Taila possesses Vrana Shodhana and Vrana Ropana properties, promoting tissue regeneration^{1,8}. Lubrication reduces trauma during defecation, promoting faster healing.

Pilot clinical study

A prospective, open-label, single-arm pilot clinical study was conducted to evaluate the efficacy and safety of Jatyadi Taila Pichu in the management of Parikartika (acute fissure-in-ano). A total of 15 patients aged between 18 and 60 years, clinically diagnosed with acute fissure-in-ano based on classical Ayurvedic features such as kartanavat vedana, daha, raktasrava, and vibandha, along with modern clinical findings including anodermal tear and sphincter spasm, were enrolled from the Outpatient Department of Shalya Tantra, NPA Government Ayurvedic College and Hospital, Raipur. Patients with chronic fissure, associated anorectal disorders, systemic diseases affecting wound healing, or pregnancy were excluded.

After obtaining informed consent, sterile cotton gauze soaked in Jatyadi Taila was applied intra-anally as Taila Pichu once daily under aseptic precautions for a duration of 28 days. Patients were advised dietary and lifestyle modifications to prevent constipation. Clinical assessment was performed at baseline and on Day 1, Day 7, Day 14, Day 21, and Day 28 using standardized scoring criteria for pain, bleeding, constipation, and sphincter tone.

RESULTS

The baseline mean pain score was 2.13. Significant improvement was observed by Day 7 (mean 1.27; 40.38% relief; $Z = 3.357$, $p = 0.001$). Complete relief occurred by Day 21 and Day 28 (100% relief; $p = 0.001$).

Baseline bleeding score was 0.57. Complete cessation occurred by Day 14 (100% relief; $Z = 2.828$, $p = 0.005$).

Baseline constipation score was 1.67. Complete relief occurred by Day 21 (100% relief; $Z = 3.354$, $p = 0.001$).

Baseline sphincter tone score was 0.87. Complete normalization occurred by Day 21 (100% relief; $Z = 2.739$, $p = 0.006$).

All results were statistically significant.

DISCUSSION

The clinical improvement observed with Jatyadi Taila Pichu can be explained by both modern surgical principles and Ayurvedic pharmacological mechanisms. Surgical literature emphasizes reduction of sphincter tone and restoration of blood flow as essential for fissure healing³⁻⁷. Jatyadi Taila

Pichu achieves these objectives through sustained intra-anal drug delivery.

Ayurvedic principles explain that drugs administered through Pakvasaya spread throughout the body via Vata-mediated transport and srotas distribution^{9,12}. The Vyavayi, Vikasi, and Sukshma properties facilitate rapid absorption and tissue penetration¹⁰. The Virya of Jatyadi Taila produces pharmacological effects including analgesia, sphincter relaxation, and wound healing¹¹.

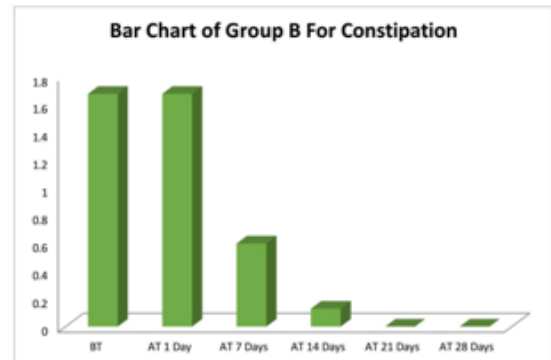
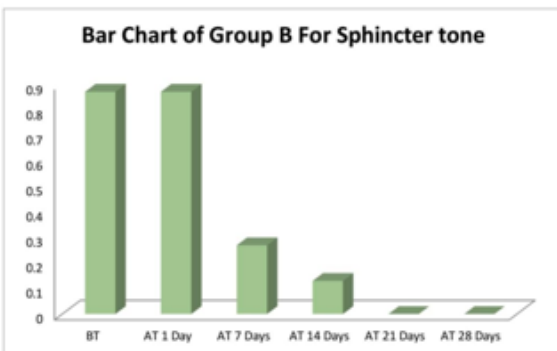
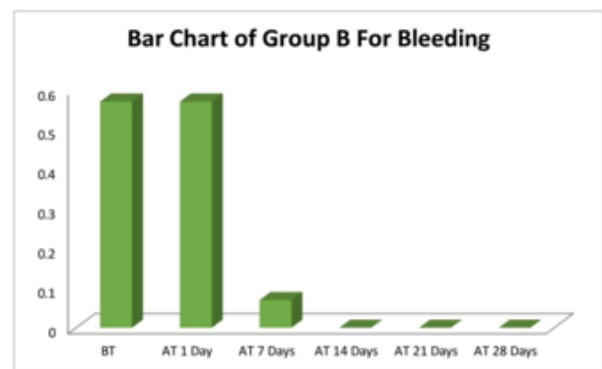
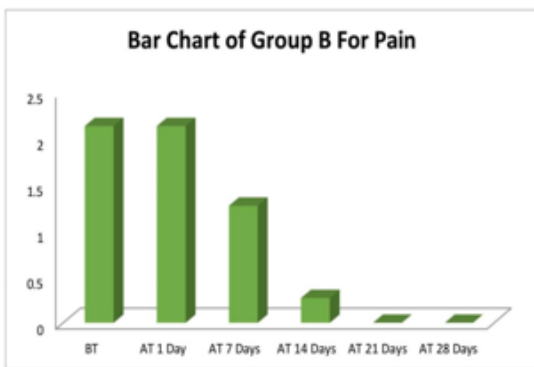
Thus, Pichu represents a scientifically valid intra-anal drug delivery system supported by both classical Ayurvedic and modern surgical principles. Pichu is safe, effective, economical, and suitable for conservative outpatient management.

CONCLUSION

Jatyadi Taila Pichu is an effective sustained intra-anal drug delivery system for management of acute fissure-in-ano. It produces statistically significant improvement in pain, bleeding, constipation, and sphincter tone, with complete healing within 28 days.

Ayurvedic principles of Pakvasaya absorption, Vyavayi property, and Virya action provide a clear scientific explanation for its effectiveness.

Statistical graphs



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