AYUSHDHARA
ISSN: 2393-9583 (P)/ 2393-9591 (O)
An International Journal of Research in AYUSH and Allied Systems

Research Article

A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF *LAJJALU TAILA PICHU* VERSUS *YASHTIMADHU TAILA PICHU* IN THE MANAGEMENT OF *PARIKARTIKA* W.S.R. TO ACUTE FISSURE IN ANO

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Article info
Article History:
Received: 12-11-2025
Accepted: 19-12-2025
Published: 20-01-2026
KEYWORDS:
Parikartika, Tila Pichu, Lajjalu Tila, Yashtimadhu Taila, Fissure-in-Ano.

ABSTRACT

Parikartika, described in *Ayurveda* as cutting pain and burning in the anal region, is listed as a complication of *Vataja Jwara*, *Pittaja Atisara*, *Sahaja* and *Kaphaja Arsha*, and *Basti–Virechana Vyapat*, with *Acharya Kashyapa* also noting its prevalence in pregnancy. *Ayurveda* provides localized, safe therapies such as *Pichu Karma*, where medicated oils with *Vata-Pitta Shamana* and *Vrana-Ropana* properties help reduce symptoms and promote healing. Hence, in the present Study *Taila Pichu* with *Lajjalu Taila Pichu* in Group A and *Yashtimadhu Taila Pichu* in Group B were used to evaluate their efficacy in the management of *Parikartika* W.S.R. to Acute Fissure in Ano. **Aims and Objectives: 1.** To study the concept of *Parikartika* in detail as described in *Ayurvedic* classics. **2.** To Study the clinical features, pathology, and management of acute fissure-in-ano from the modern perspective. **3.** To evaluate the efficacy of *Lajjalu Taila Pichu* in the management of *Parikartika* (acute fissure-in-ano). **4.** To evaluate the efficacy of *Yashtimadhu Taila Pichu* in the management of *Parikartika* (acute fissure-in-ano). **Methods:** This is a Comparative Clinical Study with pre-test & post-test design where in 60 patients diagnosed with *Parikartika* of either sex were randomly assigned into two groups viz Group A & Group B. **Intervention:** Group A: Patients were treated with *Pichu Karma* using *Lajjalu Taila* once daily for 10 days. Group B**:** Patients were treated with *Pichu Karma* using *Yashtimadhu Taila* once daily for 10 days. **Results:** The effect of the treatment in both the groups were assessed by applying Wilcoxon's rank sum test within the groups and Mann-Whitney U test between the groups, it showed that Group B showed better results than Group A. **Conclusion:** It can be concluded from the study that in the management of *Parikartika, Pichu Karma* using *Lajjalu Taila* and *Pichu Karma* using *Yashtimadhu Taila*, drugs and Procedures of both the groups are highly effective in treating *Parikartika*.

INTRODUCTION

Parikartika[1] is described in Ayurveda as a distressing anorectal disorder marked by *Kartanavat Shoola* and *Daha*, and is referenced across classical texts as a complication of *Vataja Jwara* [2], *Pittaja Atisara*[3], *Sahaja*[4] and *Kaphaja Arsha*[5], *Arsha Purvarupa*, *Garbhini Arsha*, and *Basti-Virechana Vyapat* [6].

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	https://doi.org/10.47070/ayushdhara.v12i6.2439

Acharya Kashyapa also highlights its prevalence in pregnancy[7]. Owing to its clinical features, cutting pain, burning, bleeding, and difficulty during defecation. *Parikartika* is widely correlated with fissure-in-ano in modern medicine.

Epidemiological reports show fissure-in-ano constitutes 10–15% of anorectal cases in India and is increasingly common in individuals aged 20–40 due to sedentary habits, faulty diet, chronic constipation, and stress-related bowel disturbances. Women are particularly susceptible during pregnancy and postpartum. Modern descriptions define it as a longitudinal tear in the anoderm, presenting in acute or chronic forms, both significantly affecting quality of life.

Conventional management includes stool softeners, vasodilator ointments, sitz baths, and surgical procedures such as lateral internal sphincterotomy, all of which carry risks of recurrence, postoperative pain, delayed healing, and potential fecal incontinence. Ayurveda offers a safer, holistic alternative focused on *Vata-Pitta Shamana*, pain relief, and effective wound healing. Therapies like *Anuvasana Basti*, *Pichu*, *Parisheka*, and *Lepa* with *Sneha Dravya's* are emphasized for reducing sphincter spasm, soothing inflamed tissue, and promoting *Vrana Ropana*.

Pichu Karma, involving local application of medicated oil-soaked cotton, is particularly effective due to its simplicity, localized action, and patient tolerance. *Lajjalu Taila* [8] and *Yashtimadhu Taila* [9-10], renowned for their *Shoola Hara*, *Snigdha*, and *Vrana Ropana* properties which aid in reducing pain, burning, bleeding, and facilitating fissure healing. Given the high prevalence of fissure-in-ano, its impact on patient well-being, and limitations of modern treatments, evaluating *Ayurvedic* alternatives becomes essential.

Methodology

In *Parikartika*, *Pichu Karma* serves as a result-oriented treatment modality, where its proven localized effect becomes clinically significant in addressing the associated wound.

Hypothesis

Null Hypothesis

H_0 - There is no significant difference between *Lajjalu Taila Pichu* and *Yashtimadhu Taila Pichu* in the management of *Parikartika* w.s.r. to Acute Fissure-in-Ano.

Alternate Hypothesis

H_1 – *Lajjalu Taila Pichu* has a significant therapeutic effect in the management of *Parikartika* w.s.r. to Acute Fissure-in-Ano.

H_2 – *Yashtimadhu Taila Pichu* has a significant therapeutic effect in the management of *Parikartika* w.s.r. to Acute Fissure-in-Ano.

H_3 – *Both Lajjalu Taila Pichu* and *Yashtimadhu Taila Pichu* have equal significant therapeutic effects in the management of *Parikartika* w.s.r. to Acute Fissure-in-Ano.

Source of Data

1. **Literary source:** Available *Ayurvedic* literatures, contemporary text books, journals, E-books and Imprint resources in library about Disease, procedure and drugs were reviewed and documented for the present clinical study.
2. **Sample source:** 60 Patients with *Lakshanas* of *Parikartika* coming under inclusion criteria approaching Out-patient department and In-patient department of Shalya Tantra of Shri Shivayogeeshwar Rural Ayurvedic Medical College & Hospital, Inchal will be selected for the study.
3. **Drug source:** The identified dry and wet drugs required for the preparation of *Lajjalu Taila* and *Yashtimadhu Taila* were purchased from approved vendors and post purchase medicines were prepared in *Rasa Shala*–Pharmacy of our college-Shri Shivayogeeshwar Rural *Ayurvedic* Medical College & Hospital, Inchal.
4. **I.E.C.:** The study was initiated after obtaining prior approval from the Institutional Ethics Committee (IEC Ref. No: SSRAMC/IECC/2023/).
5. **C.T.R.I.:** The clinical trial was prospectively registered with the Clinical Trial Registry of India (CTRI Registration No: CTRI/2025/08/093205).

Study design

- Study type: Interventional
- Allocation: Randomized
- Endpoint classification: Efficacy study
- Intervention model: Double group assignment.
- Primary purpose: Treatment
- Masking: Open label
- Treatment duration: 10 days
- Follow up period: 20 days
- Total duration of study: 30 days

Diagnostic criteria

- The patients presenting with *Lakshanas* of *Parikartika*.
- The patients with following Sign and symptoms will be selected for the study -
  - *Kartanavat Shoola* (cutting type of pain)
  - *Daha* (burning sensation)
  - *Kandu* (itching)
  - *Shonita Srava* (bleeding)

Inclusion criteria

- Patients of both genders.
- Patients irrespective of religion, occupation, and socio-economic status.
- Patients clinically diagnosed as a case of *Parikartika* (acute fissure-in-ano).
- Patients preferably within the age group of 20–60 years.
- Patients who are known cases of controlled Hypertension or diabetes mellitus will also be included in the study.

Exclusion criteria

- Patients below 20 years or above 60 years of age.
- Patients suffering from *Parikartika* secondary to other systemic or local diseases such as rectal

carcinoma, ulcerative colitis, Crohn's disease, tuberculosis, etc.

- Patients with uncontrolled hypertension or uncontrolled diabetes mellitus.
- Patients diagnosed as HIV positive or HBsAG positive will be excluded from the study.

Withdrawal Criteria

- If any serious complication, adverse reaction, or aggravation of disease symptoms occurs during the course of treatment requiring immediate or alternative medical management, the patient will be withdrawn from the study and treated accordingly.
- If a patient wishes to discontinue or withdraw from the study voluntarily at any stage, they will be allowed to do so without prejudice

Investigations

The following routine and specific investigations were carried out to assess the baseline condition of the patients and to rule out any systemic disorders before initiating treatment:

- Complete Blood Count (CBC)
- Random Blood Sugar (RBS)
- Serum HIV (S. HIV)
- Serum HBsAG (S. HBsAG)
- Clotting Time (CT)
- Bleeding Time (BT)

Interventions

60 patients who fulfilled the inclusion criteria were selected and randomly assigned into 2 groups as Group-A and Group-B comprising of 30 patients each.

- **Group-A:** Patients were treated with *Pichu Karma* using *Lajjalu Taila* once daily for 10 days.
- **Group-B:** Patients were treated with *Pichu Karma* using *Yashtimadhu Taila* once daily for 10 days.

Duration of the study

***Pichu Karma*: for both Group A and Group B -**

Poorva Karma

- Tools & equipment- Essential instruments, medicines, and supportive drugs arranged.
- Medicine preparation- *Lajjalu Taila* and *Yashtimadhu Taila* prepared in-house.
- Patient preparation - Consent taken; bladder and bowel emptied and perianal area cleaned and sitz bath given.

Pradhana Karma

Method of *Pichu* Application

- Patient positioned in lithotomy and area cleaned.
- Warm medicated *Taila*–soaked *Pichu* placed over the fissure region.
- Group A: *Lajjalu Taila*; Group B: *Yashtimadhu Taila*.
- *Pichu* retained for 3 hours, once daily for 10 days.

Nirikshana

Patient kept in lying position briefly after application.

Pashchat Karma

- *Pichu* removed after 3 hours and the area gently cleaned.
- Patient advised on local hygiene, light diet, and avoiding constipation.
- Observed for any adverse reactions and counselled for regular compliance.

Adverse Events

- Any untoward medical occurrence or complication arising during the treatment, whether directly related to the therapy or not, will be recorded meticulously.
- Such events will be managed promptly and appropriately to ensure patient safety and well-being throughout the study period.

Table 1: Duration of the study for both Group A and Group B

Group	No. of Pt.	Procedure	Trial Duration	Follow up	Study Duration
Group A	30	*Lajjalu Taila Pichu Karma*	10 days	After 20 days - on 30th day	30 days
Group B	30	*Yashtimadhu Taila Pichu Karma*	10 days	After 20 days - on 30th day	30 days

No. = Number, Pt. = Patients

Chart for Grading of Subjective Criteria

Table 2: Gradings of Subjective Criteria for Group A and Group B

S.No.	Criteria	Grade	Assessment Grading
1.	Pain (VAS - Visual Analogue Scale)	0	0 = No pain.
		1	1 – 3 = Pain at the time of defecation and subside within 30 minutes.
		2	4–6 = Pain at the time of defecation and subside more than 30 minutes to less than 1 hour.
		3	7 – 10 = Continuous unbearable pain at the time of defecation which persist more than 1 hour.
2.	P/R Bleeding during Defecation (ISTH - BAT - Bleeding Assessment Tool)	0	No Bleeding = No visible streaks or drops of blood during or after defecation.
		1	Mild Bleeding = Streak of blood over the surface of stool.
		2	Moderate Bleeding = Dropwise bleeding during passage of stool, approximately 0–10 drops
		3	Severe Bleeding = Profuse bleeding during or after defecation more than 10 drops.

Chart for gradings of Objective Criteria

Table 3: Gradings of Objective Criteria for Group A and Group B

S.No.	Criteria	Grade	Assessment Grading
3.	Number of ulcer in ano	0	No Ulcer = Normal mucosa; no visible fissure or ulcer
		1	One Ulcer = Anterior / Posterior
		2	Two Ulcers. = Anterior and posterior ulcer
		3	More than two ulcers
4.	Sphincteric Spasm – (DRESS - Digital Rectal Examination Scoring System)	0	Normal = No spasm; index finger passes easily on DRE without discomfort or resistance.
		1	Mild Spasm = Allowing passage of the index finger on DRE with mild or no resistance and index finger hugging the rectal stricture circumferentially without causing pain.
		2	Moderate Spasm = Allowing passage of the index finger on DRE but with significant resistance at the level of the stricture and patient feeling pain on DRE.
		3	Severe Spasm = Stricture not allowing at all the passage of the index finger on DRE even under pressure.
5.	Size of ulcer-measurement with the help of probe	0	No Ulcer
		1	1 – 5 mm.
		2	6 – 10 mm.
		3	≥11 mm.

RESULT

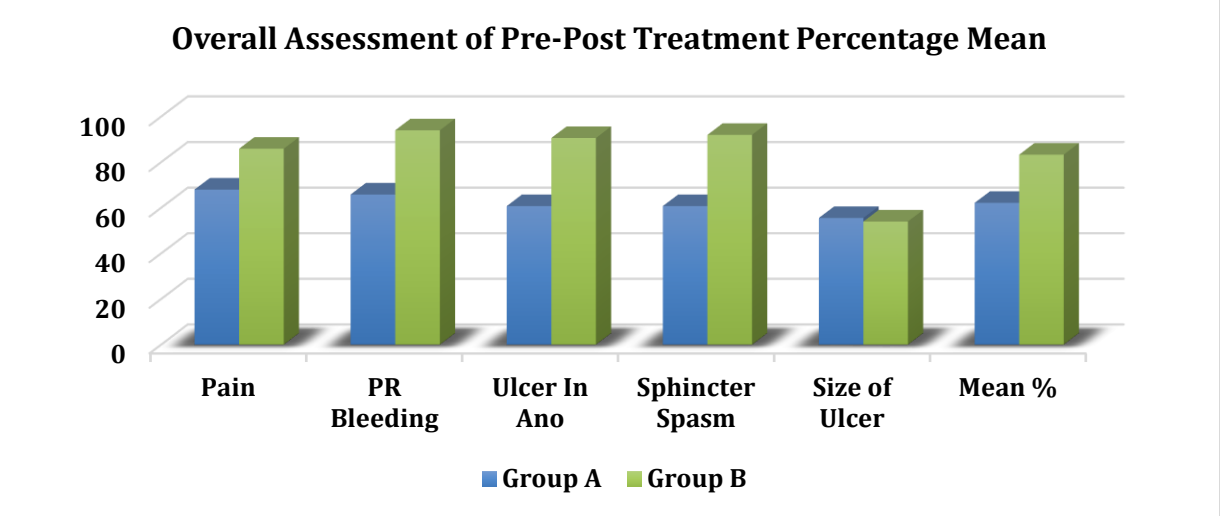
Table 4: Overall Assessment of Treatment Percentage Mean of all Criteria

S.No.	Parameters	Mean Change Treatment %			
		Group A		Group B	
		AT	AF	AT	AF
Subjective Parameters					
1.	Pain	28%	68%	43.66%	85.92%
2.	PR Bleeding	34.17%	65.84%	45.82%	94%

Objective Parameters					
3.	Number of Ulcer in Ano	24%	60.75%	42.25%	90.61%
4.	Sphincter Spasm	25.32%	60.75%	46.52%	92%
5.	Size of Ulcer	28.34%	55.55%	33.18%	54%
Total Mean %		27.96%	62.17%	42.28%	83.30%

AT = After Treatment, AF = After Follow-up

Graph 1: Overall Assessment of Treatment Percentage Mean of all Criteria

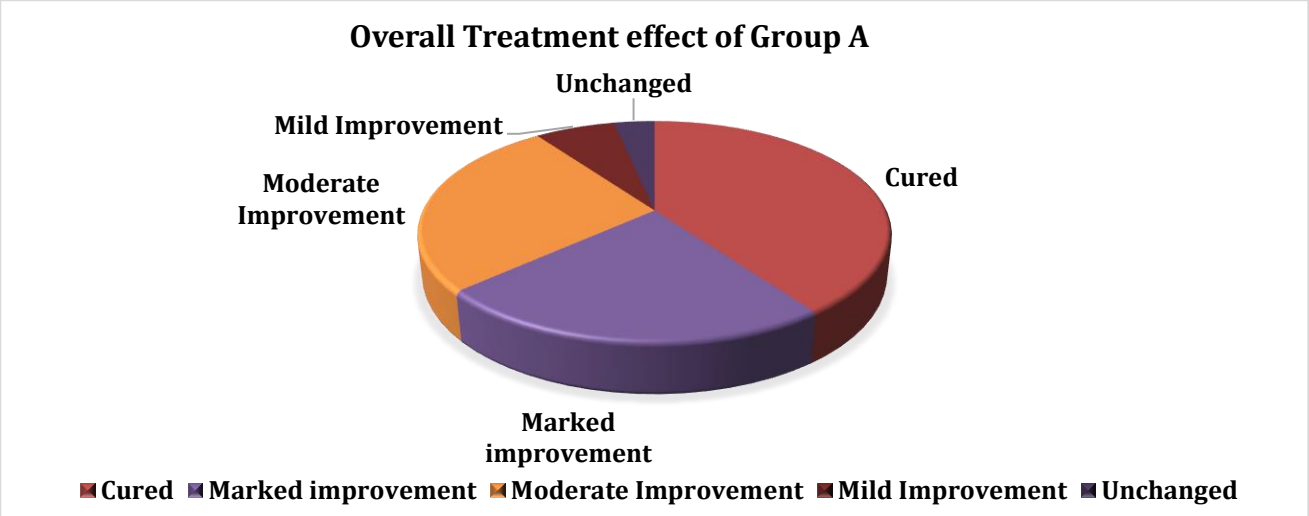


Overall Treatment Result of Group A

Table 6: Overall Assessment of Post Treatment Effect in Group A

S.No.	Criteria	% Gradings	No. of Pt. in Group A	% of Results
1.	Cured	91% - 100%	12	40%
2.	Marked Improvement	71% - 90%	7	23.3%
3.	Moderate Improvement	51% - 70%	8	26.66%
4.	Mild Improvement	31% - 50%	2	6.6%
5.	Unchanged	0% - 30%	1	3.33%
Total			**30**	**100%**

Graph 2: Overall Assessment of Post Treatment Effect in Group A

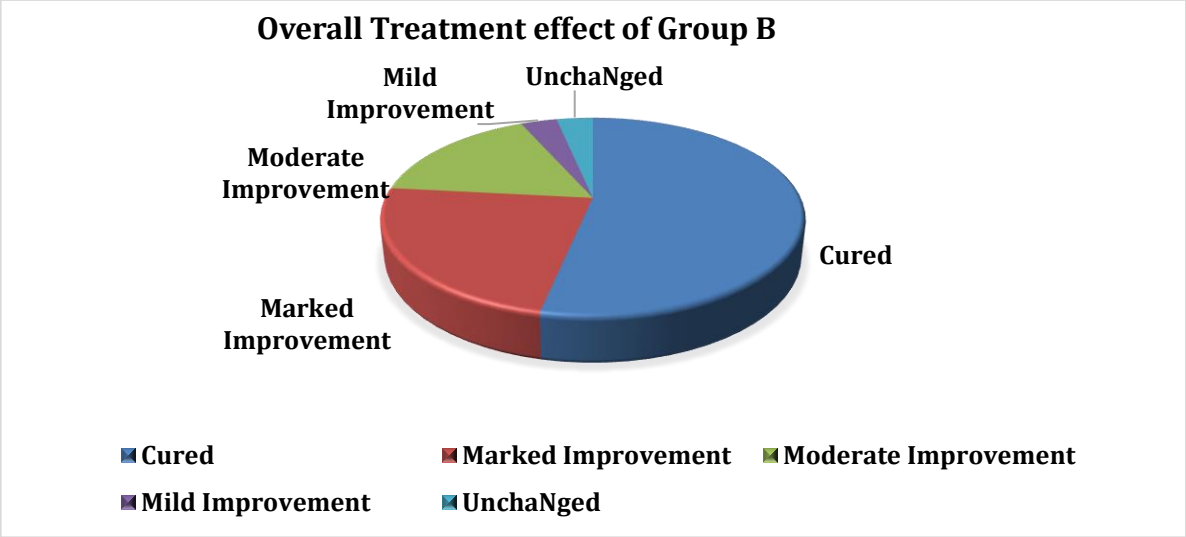


Overall Treatment Result of Group B

Table 7: Overall Assessment of Post Treatment Effect in Group B

S.No.	Criteria	% Gradings	No. of Pt. in Group B	% of Results
1.	Cured	91% - 100%	16	53.33%
2.	Marked improvement	71% - 90%	7	23.33%
3.	Moderate improvement	51% - 70%	5	16.66%
4.	Mild improvement	31% - 50%	1	3.33%
5.	Unchanged	0% - 30%	1	3.33%
Total			30	100%

Graph 3: Overall Assessment of Post Treatment Effect in Group B



DISCUSSION

Pichu is one of the important *Bahya Upakramas* employed in this study for promoting *Vrana* (wound) healing. For any externally applied formulation, selecting appropriate *Dravya* along with their specific gunas is essential to ensure optimal absorption and penetration into the affected area. The therapeutic action of *Pichu* largely depends on the synergistic properties of the chosen ingredients, which collectively support localized healing and symptom relief.

Lajjalu Taila

Lajjalu Taila, prepared mainly with *Lajjalu* (*Mimosa pudica*) and *Tila Taila*, offers significant therapeutic value due to its *Katu*, *Tikta*, and *Kashaya Rasas*, along with *Laghu*, *Rooksha*, *Teekshna*, and *Ushna Gunas*, *Ushna Veerya*, and *Katu Vipaka*. These attributes provide potent *Vrana Ropana*, *Shothahara*, *Rakta Shodhaka*, *Vedana Sthapaka*, *Krimighna*, *Srotovishodhaka*, and *Kapha-Vatahara* actions. By cleansing the wound (*Vrana Shodhana*), enhancing local circulation, and reducing infection and toxicity, *Lajjalu Taila* effectively alleviates swelling, itching, and pain. The presence of *Tila Taila* further supports skin nourishment and channel cleansing, while the formulation as a whole exhibit notable antibacterial, anti-inflammatory, and antioxidant properties, making it highly effective in managing chronic wounds such as fissure-in-ano.

Yashtimadhu Taila

Yashtimadhu Taila, composed of *Yashtimadhu*, *Tila Taila*, *Godugdha*, and *Amalaki*, possesses *Madhura*, *Tikta*, and *Kashaya Rasas*, along with *Guru*, *Snigdha*, *Teekshna*, and *Sara Gunas*, and exhibits *Sheeta Veerya* and *Madhura Vipaka*, which confer strong *Vrana Ropana*, *Twachya*, *Rakta Shodhaka*, *Vedana Sthapaka*, *Srotovishodhaka*, and *Kapha-Vatahara* actions. *Yashtimadhu*, enriched with glycyrrhizin and flavonoids, promotes tissue regeneration, reduces inflammation, and alleviates pain, making the oil highly effective in fissure-in-ano. When applied through *Pichu*, the formulation ensures prolonged contact with the anal mucosa, allowing deeper penetration, improved circulation, faster healing, reduced swelling, and better control of bleeding. The *Madhura Rasa* and *Snigdha Guna* help pacify aggravated *Vata Dosha*, addressing the root of *Parikartika*. *Tila Taila* further contributes *Twachya* and *Srotoshodaka* properties, softening tissues, clearing

channels, reducing inflammation, and enhancing local drug absorption, thereby improving overall therapeutic outcomes.

Karmukata* of *Pichu

Pichu is an effective Ayurvedic external therapy designed to enhance local drug delivery and absorption. In this procedure, medicated oil is retained over the affected area using a cotton pad, ensuring prolonged and steady contact with the tissues. The *Drava* consistency of the *Taila* allows it to remain in place for an extended duration, promoting deeper tissue penetration and sustained therapeutic action. Because of these advantages, *Pichu* is particularly beneficial in conditions that require localized healing, pain relief, and effective *Vata* pacification.

Comparison of Study

The effect of treatment has showed statistically highly significant results in both the groups with *p* value <0.001 in almost all the parameters. On comparison between the groups, Group B has an edge over Group A based on the mean rank value, which can be concluded that, *Yashtimadhu Taila Pichu* has shown better effect in reducing the symptoms of *Parikartika.*

The effect of treatment was statistically non-significant between the groups - Group A and Group B with respect to all 5 assessment parameters. However, statistically when mean rank and mean were compared between groups.

Group B was comparatively better than Group A in all the 5 parameters like pain, p.r. bleeding, number of ulcer in ano, sphincter spasm and size of the ulcer.

Overall Treatment Assessment After Treatment (BT-AT)

- BT-AT within Group A is 27.96%.
- BT-AT within Group B is 42.28%.
- BT-AT between Group A is 40% & Group B is 60%.

Overall Treatment Assessment After Follow up (BT-AF)

- BT-AF within Group A is 62.75%.
- BT-AF within Group B is 83.30%.
- BT-AF between Group A is 43% and Group B is 57%.

CONCLUSION

In the present study, 60 patients who fulfilled the inclusion criteria for *Parikartika* (acute fissure-in-ano) were selected and randomly assigned into two groups of 30 patients each. Patients in Group A were treated with *Lajjalu Taila Pichu*, and patients in Group B were treated with *Yashtimadhu Taila Pichu* for a duration of 10 days. Observations during and after the treatment were systematically recorded. The study also incorporates literary aspects of *Parikartika*, Fissure-in-ano, *Lajjalu Taila Pichu*, and *Yashtimadhu Taila Pichu*.

Upon application of statistical tests over the observations obtained, it was found that both formulations were significant in the management of *Parikartika*. Assessment of individual symptoms revealed that both the *Dravyas* were effective in relieving pain, bleeding per rectum, ulcer in ano, sphincter spasm, and reducing the size of the ulcer. However, comparative analysis showed that *Yashtimadhu Taila Pichu* demonstrated better clinical outcomes than *Lajjalu Taila Pichu*.

No untoward effects were observed during or after the treatment in either group. The technique of administration was simple, and the therapy was well tolerated by all participants. Based on this clinical study, it can be concluded that the efficacy of *Yashtimadhu Taila Pichu* has an edge over *Lajjalu Taila Pichu* in the management of *Parikartika* w.s.r. to Acute Fissure-in-ano.

In the present study, maximum patients were married, predominantly males (70%), and mostly belonged to the middle socio-economic class (52%). A majority were followers of Hindu religion (93%). Most patients were of *Vatakapha Prakruti* (52%), *Krura Koshta* (55%), and had *Mandagni* (61%).

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Cite this article as:
Dinesh B. Varvadiya, Kubendra H. Pachchinavar, Akshay B. Ganachari, R. C. Yakkundi. A Comparative Clinical Study to Evaluate the Efficacy of Lajjalu Taila Pichu Versus Yashtimadhu Taila Pichu in the Management of Parikartika w.s.r. to Acute Fissure in Ano. AYUSHDHARA, 2025;12(6):47-56.
https://doi.org/10.47070/ayushdhara.v12i6.2439
Source of support: Nil, Conflict of interest: None Declared

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Annexure

Drug Preparation

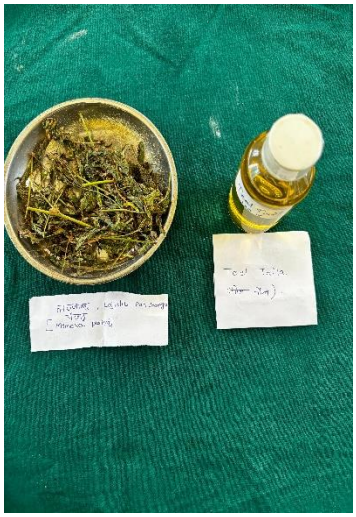

Figure 1: Ingredients of *Lajjalu Taila*

Figure 2: Preparing *Taila* under the Supervision of RSBK Hod Sir

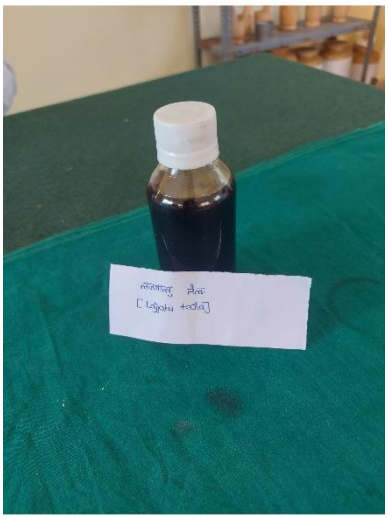

Figure 3: *Lajjalu Taila* Is Cooled and Stored

Figure 4: Ingredients of *Yashtimadhu Taila*

Figure 5: *Yashtimadhu Taila*

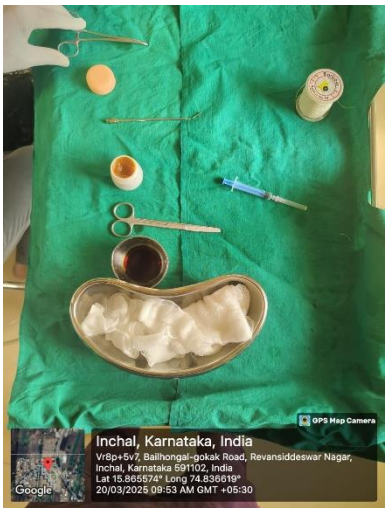

Figure 6: Instruments Required for the Procedure

Group – A Patient: Before and After Treatment

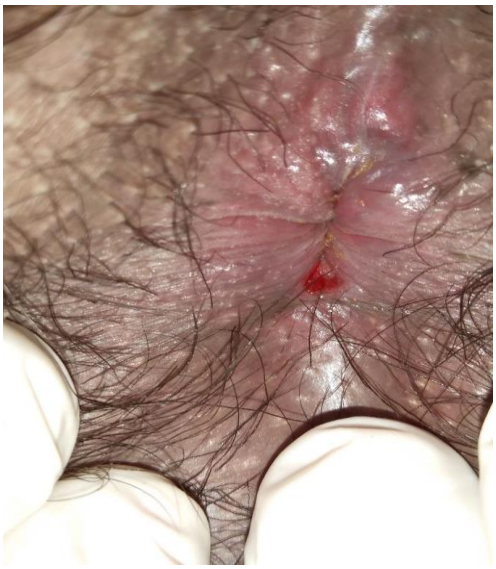

Figure 7 – Group A - Patient No. A1 – Before Treatment - BT

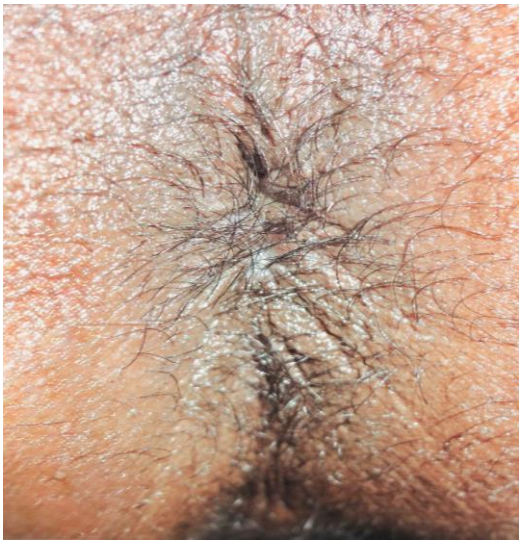

Figure 8 – Group A Patient No. A1 – After Treatment - AT

Group – B Patient: Before and After Treatment

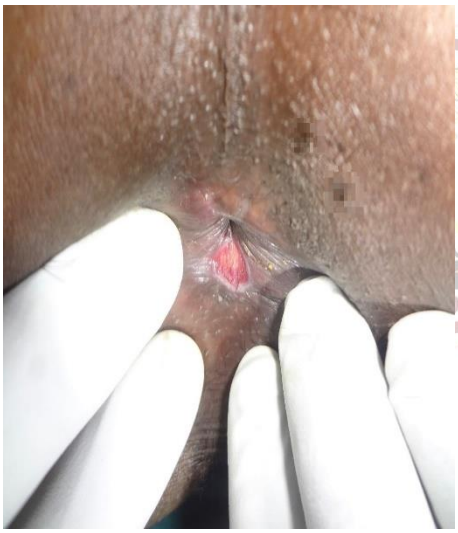

Figure 9 – Group B Patient No. B1– Before Treatment - BT

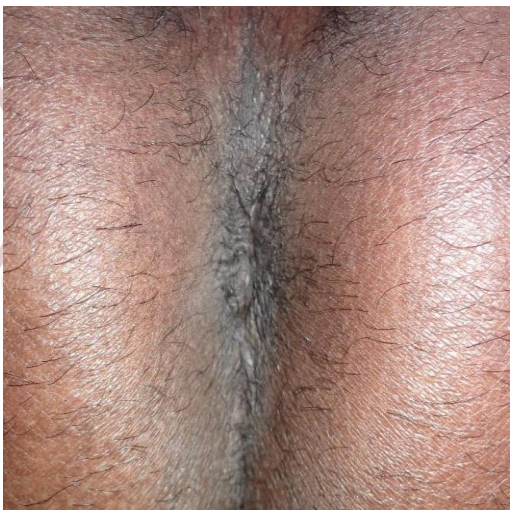

Figure 10 – Group B Patient – No. B1 – After Treatment - AT