

Evaluation of Comparative Efficacy of *Trivritadi Ointment* versus *Jatyadi Ointment* in *Bhagandara Vrana Ropana Karma* (Post-partial Fistulectomy Wound Healing): A Randomised Controlled Clinical Trial Research Protocol

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ABSTRACT

Introduction: *Bhagandara* (fistula-in-ANO) is a chronic anorectal disease that develops from an abnormally positioned tract between perianal skin and the anal canal and is routinely found to develop as a sequela of incompletely healed or untreated anal abscesses. Partial fistulectomy is the treatment of choice, yet slow or imperfect wound coverage is a serious issue. In traditional Indian medicine (Ayurveda), *Jatyadi* ointment has been a traditional remedy for wound management after surgery for years. At the same time, *Trivritadi* ointment is classically listed for *Bhagandara* but is less studied.

Need of the study: Although *Jatyadi* ointment has adequate documentation for the general cure of wounds, no trial has comparatively studied it vis-à-vis *Trivritadi* ointment, indicated for the coverage of fistula wounds as per the literature from Ayurveda. This research bridges that gap for determining a superior treatment option.

Aim: To compare the efficacies of *Trivritadi* ointment and *Jatyadi* ointment for early coverage of wounds after partial fistulectomy for patients of *Bhagandara*.

Materials and Methods: A double-blind, randomised controlled trial shall be undertaken at Mahatma Gandhi Ayurved College Hospital and Research Centre (MGACH), Salod (H), Wardha, Maharashtra, India. The trial will be planned for April 2025 commencement until December 2025 and each patient will be monitored for one month, including a 30-day postoperative evaluation. The duration of the study will depend on the inclusion rate of patients and the completion of follow-up visits. Based on the sample size calculation, a total of 144 participants will be enrolled and randomly allocated to receive wound dressing with either *Trivritadi* ointment (Group A) or *Jatyadi* ointment (Group B), with 72 participants in each group for a treatment period of 14 days. Wound cure shall be analysed at Day 7, Day 14 and Day 30 by both objective and subjective parameters like quality of wound bed, granulation formation, discharge, foul odour and intensity of pain, the latter being graded through a Visual Analogue Scale (VAS). Student's t-test will be used for continuous variables and Chi-square test for categorical variables. Paired t-test will assess outcome changes over time, with significance at $p < 0.05$.

Keywords: Anti-inflammatory agents, Ayurvedic medicine, Granulation tissue, Phytotherapy, Visual analogue scale

INTRODUCTION

Bhagandara (Fistula in Ano) is a chronic anorectal disease characterised by an unwarranted communication or tunnel between the perianal skin and the anal canal. It almost always arises as a sequel to an untreated or imperfectly healed perianal abscess and leads to a chronic sinuous wound that discharges pus, blood, or even at times, faeces, flatus and urine [1]. In more serious cases, the disease also leads to the discharge of semen and menstrual blood, further exacerbating the quality of the patient's life. *Bhagandara* is a significant clinical issue responsible for a reported prevalence of approximately 8.6 cases per 100,000 people. It has a higher prevalence among males than females and mainly among subjects with a history of perianal abscesses [2].

The aetiology of the disease is multi-factorial, involving vitiated doshas (biological energies) according to the Ayurvedic classics, by infection, trauma and inflammatory conditions like Crohn's and ulcerative colitis. *Bhagandara* can be segmented according to its exterior and interior orifices and the disease can be curable or incurable depending upon the nature and severity of the fistula tract. Excision or fistulectomy is the treatment of choice for *Bhagandara*.

These measures are, however, complicated by recurrence of the fistula, damage to the anal sphincters and prolonged recovery [3].

Despite effective surgical treatments like fistulotomy, placement of a seton and Ligation of the Intersphincteric Fistula Tract (LIFT) procedures, *Bhagandara* wound healing is a persistent problem. Postoperative wound healing should be carefully managed so that healing of the wound is not altered and recovery is slow and painful. Healing of the wound is a multi-stage process involving granulation tissue formation, infection prevention and discharge reduction. Slough and wound infection can delay healing and adjuvants should be used to promote tissue regeneration and prevent further complications [4].

To this effect, the Ayurvedic system of medicine offers an alternative approach to wound treatment in *Bhagandara*, whose treatments focus on dosha restoration of the body and the natural stimulation of wound-healing processes. Ancient systems of medicine like Ayurveda have long histories of treating complex diseases, such as anorectal diseases like *Bhagandara* [5]. Descriptive treatment protocols for diseases involving wounds, abscesses and fistulas are found in the Classical texts of Ayurveda, especially the *Sushruta*

Samhita. One of the significant characteristics of Ayurvedic wound treatment is using medicated ointments that suppress infection, stimulate granulation tissue formation and stimulate the wound-healing process of surgical wounds [6].

Two ointments that are among the most popular ointments of the traditional system of medicine, i.e., Ayurveda, are used for wound healing. *Jatyadi* and *Trivritadi* are also used. *Jatyadi* ointment has been a long-used ointment in the traditional system of medicine, i.e., Ayurveda and it is best characterised by its antibacterial, anti-inflammatory and wound-healing activity [7]. A compound preparation of a variety of herbs like *Jati* (Jasmine), *Nimba* (Neem) and *Haridra* (Turmeric), each one well-characterised by its therapeutic responses, constitutes *Jatyadi* ointment. Although *Jatyadi* ointment is well practiced and studied for general wound healing, minimal data are available for *Jatyadi* ointment use against wounds induced by *Bhagandara* or following surgical intervention for fistula conditions [8].

Conversely, *Trivritadi* ointment, recommended explicitly in the *Sushruta Samhita* for *Bhagandara* treatment, has not yet been thoroughly studied for postsurgery wound repair. Group A prepares *Trivrit* (*Operculina turpethum*), *Haridra* (*Curcuma longa*) and other medicinal plants enriched by antibacterial, anti-inflammatory, antioxidant and wound-healing properties. Group A has been described in classic Ayurvedic sources for its distinctive trait of fistula wound cure. No clinical research indicates its widespread practice in contemporary medicine in *Bhagandara* treatment [9].

Since *Jatyadi* ointment is used more universally for wound healing and there are specific indications for the use of *Trivritadi* ointment based on the traditional practice of Ayurveda for the treatment of fistula, the current study makes a comparative evaluation of the therapeutic efficacy of the ointments in bringing about cure in the patients undergoing partial fistulectomy for the disease *Bhagandara*. The study tries to establish clinical evidence whether there is a more effective therapy by using *Trivritadi* ointment, used in a specific composition for the treatment of fistula, as compared to the use of *Jatyadi* ointment, used more universally for general wound healing but not for *Bhagandara* wound healing [10].

This work is important because it completes a crucial gap in clinical experience and can open the way to more effective therapeutic intervention for treating *Bhagandara* wounds. While assessing the efficacy of those ointments according to Ayurveda in wound cure, infection prevention and granulation tissue growth, this work will indicate the potential use of indigenous medicine to treat *Bhagandara* and other anorectal infections [11].

The background and introduction give a fitting lead-up to the research study, covering the nature of *Bhagandara*, wound recovery after surgery and the prospective help that might come from the usage of Ayurvedic ointments such as *Trivritadi* ointment and *Jatyadi* ointment, by putting the problem into perspective and the currently practiced treatment methods into perspective, as well as the necessity of carrying out more research into these ointments from an Ayurvedic perspective, the background helps to rationalise the study. The facts give a clean picture of the topic and put the research into perspective regarding the broader knowledge of fistula in ano and wound healing [12].

Shloka from *Sushruta Samhita*:

“तेतुभगुदवस्तिप्रदेशदरणाच्चभगन्दराइत्युच्यन्ते।अपक्वाःपिडकाः,पक्वास्तुभगन्दराः।”
(*Sushruta Samhita*, *Nidana* 4/3) [13].

This shloka distinguishes between anorectal abscesses (no opening of a fistula) and fistula in ano (with an opening). *Bhagandara* is a chronic anorectal disorder in which an abnormal pathway forms between the anal canal and perianal skin, usually as a consequence of an untreated abscess, with resulting drainage of pus or other material.

Shloka from *Sushruta Samhita*:

“त्रिवृद्धन्नीहरिद्रार्कमूललोहाश्चमारकौ।विडङ्गसारत्रिफलासुहाकंपयसीमधुमधूच्छिष्टसमायुक्तैस्तैलमेतैर्विपाचयेत्।भगन्दरविनाशार्थमितद्व्योज्यविशेषतः।”

(*Sushruta Samhita*, *Chikitsa Sthan*, Chapter 8, Sloka 48-49) [14].

This shloka tells us to apply an ointment from *Trivrit*, *Haridra* (Turmeric), *Arka* root and other medicated plants. The preparation is to be used for the treatment of fistula in ano (*Bhagandara*), for the cure of wounds, reduction of infection and formation of granulation tissue. All these ingredients have antimicrobial and anti-inflammatory properties and fistulous tracts are, of course, helped to heal after an operation.

The current study aims to compare and assess the efficacy of *Trivritadi* ointment and *Jatyadi* ointment in healing postoperative wounds of *Bhagandara* (fistula in ano) patients after partial fistulectomy in terms of granulation tissue formation, alleviation of pain, discharge reduction and wound healing.

Primary objective: To compare and contrast the effective wound healing of postoperative fistulous wounds after partial fistulectomy by ointment (*Trivritadi* vs. *Jatyadi*).

Secondary objective: To evaluate which ointment decreases scar formation after surgery.

Null hypothesis (H_0): Postoperative scar formation or wound healing after partial fistulectomy in patients of *Bhagandara* is not significantly different from that of *Jatyadi* ointment and *Trivritadi* ointment.

Alternate hypothesis (H_1): *Trivritadi* Ointment has enhanced postoperative wound cure and/or less scar tissue formation than *Jatyadi* Ointment after partial fistulectomy for patients suffering from *Bhagandara*.

REVIEW OF LITERATURE

Ayurvedic management of *Bhagandara* (fistula-in-ano) and wound healing has been of interest in recent years. Meena RK et al., compared the clinical evaluation of *Guggulu*-based *Ksharasutra* for treating *Bhagandara*, with and without partial fistulectomy and established its effectiveness in fistula wound treatment [15]. Dhurve V and Dudhamal T also evaluated the wound-healing activity of *Panchavalka* in postoperative fistula wounds, with encouraging results [16]. Shinde PS et al., performed a randomised controlled trial to assess the effectiveness of *Jatyadi* Ointment and *Jatyadi Taila* in wound healing. They indicated their effectiveness in clean wound healing (*Shuddha Vrana*) [17]. Kolhe R and Acharya R reviewed *Trivrit* and its importance in *Ayurvedic* literature, specifically regarding its application in wound healing [18]. Herman A and Herman AP also reviewed the application of herbal products in postsurgical wound healing, with special reference to their applicability in modern healthcare [19]. These studies prove the applicability of Ayurvedic formulations in wound healing, as shown in [Table/Fig-1] [15-19].

MATERIALS AND METHODS

This clinical trial shall adhere to a double-blind, randomised, controlled design to assess *Trivritadi* ointment (Group-A) and *Jatyadi*

Authors (year)	Key finding	Research focus	Challenges/limitations	Future scope
Meena RK et al., (2018) [15]	<i>Guggulu</i> -based <i>Ksharasutra</i> was effective in managing <i>Bhagandara</i> with or without partial fistulectomy	Efficacy of <i>Guggulu</i> -based <i>Ksharasutra</i> in <i>Bhagandara</i> treatment.	Limited to clinical trials with small sample sizes.	More extensive multicentre trials to validate findings
Dhurve V and Dudhamal T (2020) [16]	<i>Panchavalka</i> demonstrated promising wound healing potential in postoperative fistula wounds	Exploring <i>Panchavalka</i> for postoperative wound healing	Lack of controlled studies with diverse patient populations	Comparative studies with other Ayurvedic formulations

Shindhe PS et al., (2020) [17]	<i>Jatyadi</i> ointment and <i>Jatyadi Taila</i> significantly promoted healing in clean wounds	Evaluation <i>Jatyadi</i> ointment and <i>Jatyadi Taila</i> in wound healing	Due to the limited scope of clean wounds, further trials are needed in complex wound healing	Study efficacy in chronic and complex wounds
Kolhe R and Acharya R 2014) [18]	<i>Trivrut</i> is highly valued in <i>Ayurvedic</i> texts for its role in wound healing, especially in <i>Bhagandara</i>	Review of <i>Trivrut</i> in classical <i>Ayurvedic</i> texts and its healing properties	Lack of experimental validation in clinical studies	Clinical trials to assess its specific therapeutic applications
Herman A and Herman AP (2020) [19]	Herbal products, including <i>Ayurvedic</i> formulations, support faster recovery and tissue regeneration in postsurgical wound healing	Role of herbal products in postsurgical wound healing	Limited focus on specific herbal products; need for more focused research	Further research on individual herbs' role in healing and their mechanistic actions

[Table/Fig-1]: Literature review: previous work done in this study [15-19].

ointment (Group-B) comparative efficacy in postoperative wound healing following partial fistulectomy for *Bhagandara*. This trial shall be undertaken at Mahatma Gandhi Ayurved College Hospital and Research Centre (MGACH), Salod (H), Wardha, Maharashtra, India, from April 2025. Ethical clearance has been approved by the Institutional Ethics Committee (IEC No.: MGACHRC/IEC/Oct-2022/584) and the trial has been registered at the Clinical Trial Registry of India (CTRI/2023/04/051851). A total of 144 patients shall be randomised into two equal groups for twice-daily wound dressing with either Group-A (*Trivritadi* ointment) or Group-B (*Jatyadi* ointment) for 14 days. Wound healing parameters shall be observed at one week, two weeks and one month postsurgery to assess wound bed quality, granular tissue formation, discharge, odour and pain intensity through the VAS. The total time required for this study shall rely upon the rate of patient recruitment and completion of follow-up visits, likely to be December 2025. In writing, English, Hindi, or Marathi will inform participants of the purpose of the study, procedures involved, risks and benefits. Written voluntary consent will be obtained, highlighting the option to withdraw at any time without any effect on medical attention. The procedure adheres to institutional and ethical guidelines for research.

Study Procedure

The patients will be randomised into two groups of 72 by a computer-generated sequence with concealed allocation in sealed opaque envelopes. Participants and outcome assessors will not know group allocations. The trial will be double-blind. The investigational ointments will be prepared and packed in identical containers and coded by an independent pharmacist to conceal allocation. To maintain blinding, efforts will be made to standardise the physical characteristics of the formulations, including colour, consistency and odour using neutral bases and masking agents. Wound dressing will be performed by a trained nursing staff not involved in outcome assessment or data analysis. Both participants and outcome assessors will remain blinded to group allocation throughout the study.

Inclusion criteria: The participants of this study will be selected according to the following inclusion criteria to get a homogeneous sample representative of the target group. The participant subjects will be those who were diagnosed with *Bhagandara* (fistula in ano) and were subjected to partial fistulectomy. Male and female patients between 20 and 45 years will be included in the study because these patients are most likely to benefit from wound healing procedures. All subjects will be requested to provide written informed consent to participate in the study and only postoperative cases of the same surgeon will be utilised to eliminate variations in the surgical procedure.

Exclusion criteria: The participants will be excluded from the study if they have a history of medically debilitated diseases like diabetes mellitus, leprosy, chronic renal failure, Crohn's disease, or ulcerative colitis, since such diseases tend to impede the healing of the wound. Participants with extra-pulmonary tuberculosis, syphilis, or those who have undergone radiotherapy will also be excluded since they can negatively impact the healing process. Patients with anorectal carcinoma or other significant diseases that can complicate healing will also be excluded from the study.

Sample size calculation: The trial will involve 144 patients, with 72 participants per group (Group-A and Group-B). The estimated sample was given by the superiority trials by parallel group design comparing two proportions formula as follows:

Sample size formula is as follows:

$$n = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2 \{ \pi_s(1-\pi_s) + \pi_t(1-\pi_t) \}}{(\pi_t - \pi_s - \delta)^2}$$

Where:

- π_t =expected success proportion in test treatment=0.95
- π_s =expected success proportion in standard treatment=0.75
- $\pi_t - \pi_s$ =expected difference=0.20
- δ =superiority margin=0.05
- α =significance level=0.05
- $1 - \beta$ =power=0.80

$$N = \frac{(1.645 + 0.84)^2 \{ 0.75(1 - 0.75) + 0.95(1 - 0.95) \}}{(0.95 - 0.75 - 0.05)^2}$$

$$N = \frac{(2.485)^2 \{ 0.1875 + 0.0475 \}}{(0.15)^2}$$

$$N = \frac{6.18 \times 0.235}{0.0225} = \frac{1.4523}{0.0225} = 64.54$$

Based on these assumptions, the needed sample size is 65 patients per group (overall n=130).

To compensate for potential dropouts, non compliance, or attrition, an additional 10% of subjects was added. Therefore, the adjusted sample size per group was calculated as:

$$N = 65 + (10\% \text{ of } 65) = 65 + 6.5 = 71.5$$

After rounding to the nearest whole number, the final sample size (N) was 72 subjects per group, resulting in a total of 144 participants (72 in Group-A and 72 in Group-B).

This calculated sample size provides 80% statistical power to detect a minimum clinically significant difference of 20% in wound healing outcomes between the two treatment modalities at a one-sided significance level of 5%, ensuring adequate precision and reliability for inferential analysis.

Intervention given:

1. Trivritadi ointment (Group-A): Group-A ointment is an *Ayurvedic* wound healing preparation, primarily for *Bhagandara* (fistula in ano). The chief ingredients are *Trivrit* (*Operculina turpethum*) with detoxifying action; *Haridra* (*Curcuma longa*) with anti-inflammatory action; *Vidanga* (*Embelia ribes*) with tissue-regenerating action; and *Arka* (*Calotropis procera*) with antiseptic action, decreasing infection and swelling. Decoction of the drugs is followed by infusion of the decoction in sesame oil or ghee. The decanted liquid is boiled to achieve the desired consistency. Externally, the ointment is applied as a daily dressing for 14 days, promoting granulation tissue formation, infection control and pain relief [20].

2. Jatyadi ointment (Group-B): Group-B ointment is another common *Ayurvedic* medication for wound healing, with the ingredients *Jati* (*Jasminum sambac*), *Nimba* (*Azadirachta indica*), *Haridra* (*Curcuma longa*) and *Kesar* (*Crocus sativus*), all of which

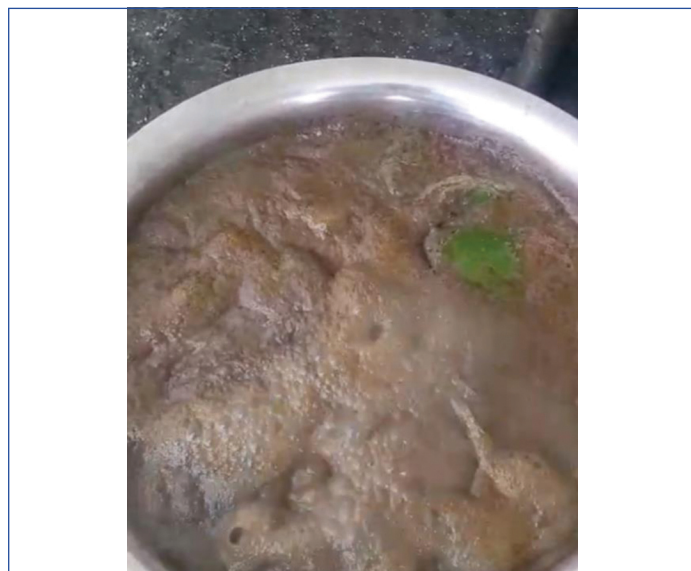
have antimicrobial and anti-inflammatory activity. The preparation is the same: the herbs are decocted and infused in sesame oil or ghee base. This is then heated until the desired consistency is achieved. Like *Group-A*, *Group-B* ointment is applied as a daily dressing for 14 days, promoting wound closure, infection decrease and tissue healing [21].

Both ointments are used topically as a postoperative wound dressing in *Bhagandara* patients who were operated on for partial fistulectomy, facilitating quicker and better healing.

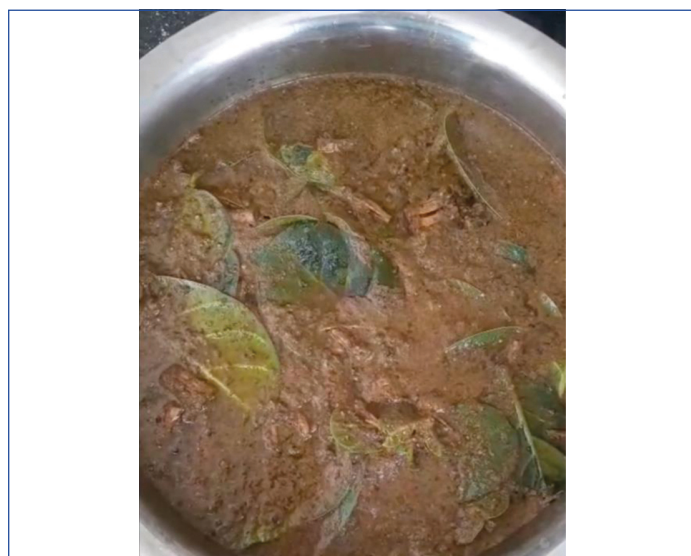
Interventions: In the present study, the patients will be randomly allocated into two groups to undergo postoperative wound healing therapy:

1. Trivritadi ointment (Group-A): Patients will be given a wound dressing once daily with Group-A ointment for 14 days after partial fistulectomy. The ointment will be given by medicated gauze (*Pichu*) packed into the wound and dressings will be replaced daily. Wound healing will be assessed at Day 7, Day 14 and Day 30. The *Sneha paka* process showing boiling of herbal paste with medicated oil for *Trivritadi* ointment is illustrated in [Table/Fig-2]. The subsequent cream processing steps are shown in [Table/Fig-3].

2. Jatyadi ointment (Group-B): This group of patients will receive the same treatment and Group-B ointment will be applied once a day for dressing for the 14-day duration. Wound healing would also be observed on Day 7, Day 14 and Day 30 as shown in [Table/Fig-4,5].

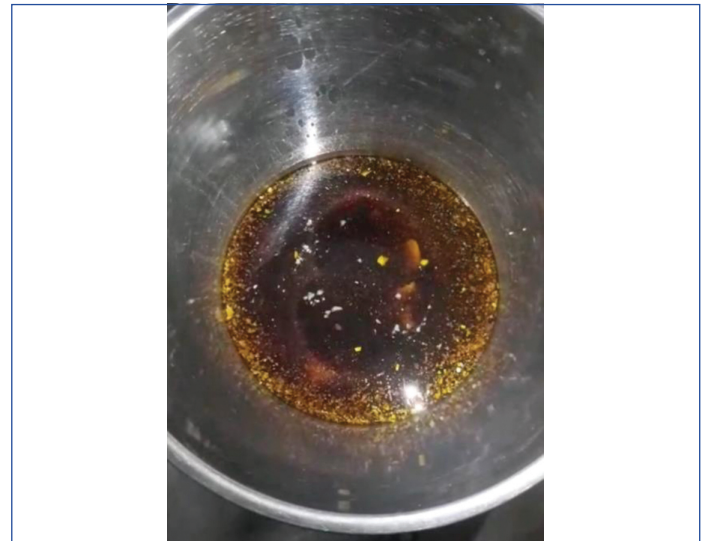


[Table/Fig-2]: *Sneha paka* process showing boiling of herbal paste with medicated oil for *Trivritadi* ointment.



[Table/Fig-3]: *Trivritadi* ointment (Group-A) ointment cream processing.

Preparation of ointments: *Trivritadi* ointment and *Jatyadi* ointment were prepared personally by the investigator according to classical Ayurvedic methods, rather than commercial formulations. All ingredients were sourced from certified suppliers, authenticated by



[Table/Fig-4]: *Sneha Paka* (medicated oil preparation) process of *Jatyadi* ointment (Group-B).



[Table/Fig-5]: Final ointment (cream) preparation of *Jatyadi* ointment (Group-B).

the Department of Dravyaguna and processed in the institutional pharmacy under GMP-compliant conditions. The formulations were prepared using standard *Sneha paka* (medicated oil preparation) techniques, filtered and packed in identical containers to ensure blinding.

The study methodology, including treatment allocation, assessment parameters and follow-up schedule, is summarised in [Table/Fig-6].

Groups	Sample size	Treat-ment	Frequency	Treat-ment period	Assessment parameters	Follow-ups
Group-A	72	Group-A	Daily dressing	14 days	Wound bed quality, granulation tissue, discharge, odour, pain	Day 7, Day 14, Day 30
Group-B	72	Group-B	Daily dressing	14 days	Wound bed quality, granulation tissue, discharge, odour, pain	Day 7, Day 14, Day 30

[Table/Fig-6]: Table summarising the study methodology, including the sample size for each group, the treatments administered (Group-A or Group-B).

Outcome Measures

Primary outcome measures will include wound bed quality, granulation tissue formation, pain intensity and infection control. Wound bed characteristics and granulation tissue will be assessed using selected components of the Pressure Ulcer Scale for Healing (PUSH tool 3.0) [22], specifically the tissue type and exudate amount subscales. Although the PUSH tool was originally developed for pressure ulcers, it has been widely utilised as a standardised instrument for monitoring wound healing progression across various wound types due to its simplicity, reproducibility and clinical applicability [23,24].

Pain intensity will be evaluated using a 10-point VAS [25], where 0 indicates no pain and 10 represents the worst imaginable pain. Infection control will be assessed clinically based on the presence or absence of discharge, erythema and foul odour.

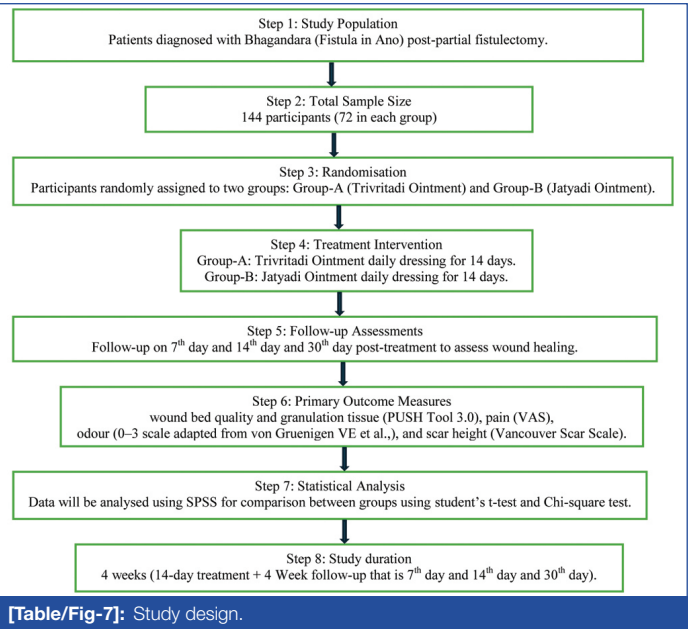
Secondary outcome measures will include wound discharge, odour, scar formation and overall healing progression. Discharge will be graded using the exudate amount component of the PUSH tool (0=none, 1=light, 2=moderate, 3=heavy) [22]. Odour will be assessed using a 4-point verbal rating scale (0=absent, 1=mild, 2=moderate, 3=severe) [26].

As the PUSH tool is not specifically validated for postoperative fistulectomy wounds, its application in the present study will be limited to monitoring relative changes in wound status over time rather than absolute outcome measurement. This limitation will be considered during data interpretation.

Overall wound healing will be expressed as a composite index derived by summing individual parameter scores, where higher scores indicate better healing outcomes.

The study design including participant recruitment, randomisation into the two treatment groups, the timeline of treatments and follow-up assessments, the table also clarifies treatment duration and procedures to facilitate easy monitoring and understanding of the study is shown in [Table/Fig-7]. The quarterly timeline of the research work is illustrated in [Table/Fig-8].

Control of confounding variables: In this prospective study, all those patient-related parameters that come into play for determining wound healing, like level of activity, nutrition level and compliance, are controlled. To this date, all subjects are well compliant with the treatment regimen. Only patients with a normal nutritional level are enrolled and no restriction on activity is applied; subjects can have a typical day's routine. These controls are applied to control variability and confounding in the treatment outcome analysis.



[Table/Fig-7]: Study design.

Study activity	Q1	Q2	Q3	Q4	Q5	Q6
Literature review and topic selection; Synopsis writing	✓	✓				
Scientific committee presentation; Ethics committee approval; Synopsis submission	✓	✓	✓	✓		
Questionnaires, CRF design, consent and sampling		✓	✓	✓	✓	
Interventional study, data collection and management, data analysis					✓	✓
Thesis writing and presentation to IEC/SAC and submission					✓	✓
Open defence viva					✓	✓

[Table/Fig-8]: GANTT chart- the period during which the respective research activity is conducted. Q1-Q6 represents sequential quarters of the study duration.

STATISTICAL ANALYSIS

Results from the research shall be compared to determine the efficacy of Group-B and Group-A through appropriate statistical analysis. Descriptive statistics (SD, mean) shall summarise demographic and baseline parameters for wound healing. The outcome measures, such as wound bed quality, granulation tissue formation, discharge, odour and pain, will be compared using the Student's t-test for continuous variables and Chi-square tests for categorical variables [27]. Repeated measures analysis {paired t-tests or Analysis of covariance (ANCOVA)} will be employed to compare change over time on Day 7, day 14 and Day 30. A p-value of <0.05 will be employed as statistically significant and confidence intervals will be employed to estimate the precision of the results [28]. The sample size was computed considering a 20% difference in efficacy, 80% power and 5% significance level. This method gives valid and reliable results to compare the efficacy of the two treatments. The study's significance level will be p<0.05. This means the two treatment groups significantly differ if the p-value of any comparisons is less than 0.05. The p-value of <0.05 means there is less than a 5% chance that differences between the groups observed are due to random variation.

Glossary

1. *Bhagandara: Fistula in ano.*
2. *Group-A: Ayurvedic ointment for wound healing.*
3. *Group-B: Ayurvedic wound healing ointment.*
4. *Vranatal: Wound bed quality.*
5. *Srava: Wound discharge.*
6. *Varna: Granulation tissue formation.*
7. *Gandha: Odor of the wound.*
8. *Vedana: Pain.*
9. *Visual Analogue Scale (VAS): Pain assessment tool.*
10. *Fistulectomy: Surgical removal of a fistula.*

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