International Research Journal of Ayurveda & Yoga Vol. 9(1), pp. 6-13, January, 2026
Available online at http://irjay.in
ISSN: 2581-785X
DOI: 10.47223/IRJAY.2026.90102

ORIGINAL RESEARCH ARTICLE

An Open Comparative Clinical Study to Evaluate the Efficacy of *Sukhoshna Yashtimadhu Ghrita Pichu* in the Pain Management of *Shastra Nipata Vrana* W.S.R to Post-surgical Wounds

Nikhil Dipak Pashte[1]*, K. R. Narayan[2]

[1]Intern Doctor, Atreya Ayurvedic Medical College, Hospital and Research Centre, Doddaballapura, Karnataka, India.
[2]Associate Professor, Department of Shalya Tantra, Atreya Ayurvedic Medical College, Hospital and Research Centre, Doddaballapura, Karnataka, India.

ARTICLE INFO

Article history:
Received: 17-12-2025
Accepted: 14-01-2026
Published: 31-01-2026

Key words:
Agantuja,
Pain,
Surgical,
Vaidyakrita,
Vedana,
Vrana

ABSTRACT

The life of every individual starts with the healing of the wound of the cut umbilical cord. Hence, treatment for the healing of this wound is of prime importance. While explaining the scope of *Shalya Tantra, Sushrutha* has mentioned "*vrana vinishchayaartam*" as a major part of *Shalya Tantra*. The *vrana* should be protected from *Dosha Dushti* and microorganisms, which may delay the healing process. Hence, for the early and uncomplicated healing of *vrana,* treatment is necessary. The history of medical science starts with the art and skill of wound healing. Treatment of the wound was probably the first medical problem faced by human beings. Centuries ago, injury in the battlefield was one of the common problems, along with contamination of the wound from surrounding environmental factors. Fall from heights, crushing against stone or hard materials, and animal bites were the other causes for injury. Another important source of *vrana* is *Shastra Karma* (Surgical Wound). These wounds are referred to as *Vaidyakrita Vrana* by *Acharya Sushruta* and they possess features such as *Samyakayata, Samyakvisala, Suvibhakta, Nirashrita,* and *Praptakalakrta*. A *Vaidyakrita Vrana* or Surgical Wound is inevitably followed by pain due to the injury to the tissues and nerves in the operation site. *Susuruta Acharya* has mentioned the application of *Sukhoshna Yashtimadhu Ghrita* for *vedana shamana* in this type of *Shastranipatavrana* while explaining *trividha karma*. Nowadays, *Vedana* resulted by these *vrana* are managed by contemporary analgesics due to the lack of efficient analgesics in *Ayurveda.* To find a potent analgesic agent, the following study has been taken up. The present study was carried out as an Undergraduate Research Project sponsored by Rajiv Gandhi University of Health Sciences, Bengaluru, where *Sukhoshna Yashtimadhu Ghrita Pichu* will be applied to manage post-operative surgical wound pain in various surgeries.

1. INTRODUCTION

Pain is defined as an unpleasant and emotional experience associated with or without actual tissue damage. It is produced by real or potential injury to the body.

The Taxonomy Committee of International Association for the Study of Pain (IASP) defines pain as "An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage."[1]

Corresponding Author:
Nikhil Dipak Pashte,
Intern Doctor, Atreya Ayurvedic Medical College, Hospital and Research Centre, Doddaballapura, Karnataka, India.
Email: nikhilpashte1421@gmail.com

1.1. Pathways of Pain Sensation

Pain sensation from various body parts is carried to the brain by various pathways which are:

1. Pathway from skin and deeper structures.
2. Pathway from face.
3. Pathway from viscera.
4. Pathway from pelvic organ.

1.1.1. Pathways from skin and deeper structures

- Receptors: Receptors of pain sensation are the free nerve endings, which are distributed throughout the body.
- First-order neurons: First-order neurons are the cells in the posterior nerve root ganglia, which receive the impulses of pain sensation from pain receptors through their dendrites.

- Second-order neurons: Neurons of the marginal nucleus and Substantia Gelatinosa of Rolando form the second-order neurons.
- Third-order neurons: Third-order neurons are the neurons in:
  i. Thalamic nucleus.
  ii. Reticular formation.
  iii. Tectum.
  iv. Gray matter around the aqueduct of Sylvius [Figure 1].

1.1.2. Pathway from face

- Trigeminal nerve carries somatosensory information from the face, teeth, periodontal tissues, oral cavity, nasal cavity, cranial dura mater, and major part of scalp to sensory cortex. It also conveys proprioceptive impulses from the extrinsic muscles of the eyeballs.

1.1.3. Pathway from viscera

- Pain sensation from thoracic and abdominal viscera is transmitted by sympathetic (thoracolumbar) nerves. Pain from esophagus, trachea, and pharynx is carried by vagus and glossopharyngeal nerve.

1.1.4. Pathway from pelvic region

- Pain sensation from deeper structures of the pelvic region is conveyed by sacral parasympathetic nerves.

1.2. Neurotransmitters Involved in Pain Sensation[2]

- Glutamate and substance P are the neurotransmitters secreted by pain nerve endings.
- Afferent fibers, which transmit impulses of fast pain secrete glutamate.
- The C type fibers, which transmit impulses of slow plain secrete substance P.

1.3. Post-Operative Pain

Post-operative pain in the body refers to the occurrence of pain after the operation, at the site of the injury. Subsidizing this post-operative pain is the first line of management that should be adopted after a surgery. Post-operative pain management is essentially important because an inadequate post-operative pain management in the surgical site can lead to poor recovery, function, and quality of life and can increase the risk of persistent post-surgical pain and complications.

An adequate pain control minimizes patient suffering, improves patient satisfaction, promotes early post-surgical mobilization, reduces the length of hospital stay, and minimizes costs.

Post-operative pain is considered a form of acute pain due to surgical trauma with an inflammatory reaction and initiation of an afferent neuronal barrage. It is a combined constellation of several unpleasant sensory, emotional, and mental experiences precipitated by the surgical trauma and associated with autonomic, endocrine-metabolic, physiological, and behavioral responses.[3]

Afferent neural pathways mediate pain sensation.[4] Acute postsurgical pain can be categorized as nociceptive, inflammatory, or neuropathic. Nociceptive pain is mediated by activated unmyelinated C-fibers, thinly myelinated A-delta-fibers, and myelinated A-beta-fibers. Usually, this type of pain occurs in response to noxious stimuli such as direct intraoperative tissue injury (e.g., making a skin incision). Inflammatory pain occurs when nociceptive fibers become sensitized in response to releasing inflammatory mediators such as cytokines. The clinical manifestation of inflammatory pain may comprise the 4 classic signs of inflammation (pain, heat, erythema, and swelling). Inflammatory pain may last hours to days in duration and is generally reversible. Neuropathic pain results from injury to neuronal structures (e.g., peripheral nerves), whereby pain occurs due to increased axonal sensitivity to stimuli. Neuropathic pain will present in the immediate post-operative period and may persist as chronic post-operative pain.[5]

Post-operative pain can additionally be characterized as somatic or visceral.

The somatic division of pain is composed of a rich input of nociceptive myelinated, rapidly conducting A-beta-fibers found in cutaneous and deep tissue, which contribute to a more localized, sharp quality.[5,6] The visceral division of pain comprises a network of unmyelinated C-fibers and thinly myelinated A-delta-fibers that span multiple viscera and converge together before entering the spinal cord.

Furthermore, visceral afferent fibers run close to the autonomic ganglia before their entrance into the dorsal root of the spinal cord. These characteristic features of visceral nociceptive fibers contribute to a more diffuse, poorly localized pattern of pain that may be accompanied by autonomic reactions such as a change in heart rate or blood pressure.[5] Therapeutic interventions developed for pain management target the afferent pain pathway by various mechanisms. For example, antagonizing pain receptor activity or blocking pro-inflammatory mediator production.[7,8]

1.4. *Shastra Nipata Vrana Vedana/Vaidyakrita Vrana Vedana*

Shastra Karma here indicates all the 8 types of *Shastra Karma* explained by *Acharya Sushruta*. Furthermore, all the *Anushastra Karma* explained can also be considered under the same umbrella for the purpose of the present study.

Shastra Nipata Vrana Vedana can be defined as the pain originated as a sequel of a *Shastra Karma* resulted due to the incision taken by the *vaidya*. Hence, it is also called as *Vaidyakrita Vrana Vedana*. This is the resultant of *Tridosha prakopa* that occurs due to the external injury because of the incision, with predominance of *Vata* and *Pitta*. The *Kshatoshma* (inflammatory changes) that occur soon after the injury is considered to be the major cause of the *Vedana* after a *shastra karma* and *Acharya Sushruta* considers that subsiding the *Kshatoshma* should be the first line of management in all *Aguntaja vrana* to subside pain.

For the present study, a unique yoga – *Sukhoshna Yashtimadhu Ghrita* application mentioned by *Acharya Sushruta* has been considered as the interventional medicine for the alleviation of *Kshatoshma*, which results in *Shastra Nipata Vrana Vedana* or *Vaidyakrita Vrana Vedana*.

Yoga is mentioned in the *Agyopaharaniya Adhyaya* of *Sushruta Sutra Sthana,*[9] as follows:

1.5. *Yā Vedanā Śastranipātajātā Tīvrā Śarīraṃ Pradunoti Jantoḥ | Dhṛtena Sā Śāntimupaiti Siktā Koṣṇena Yaṣṭīmadhukānvitenā || (SU.SU 5/42)*

Acharya Sushruta says that the pain originated due to the use of *Shastra* can be quickly alleviated by the application of *Sukhoshna Ghrita* along with *Yashtimadhu Choorna*.

As per the above reference, *Sukhoshna Ghrita* with *Yashtimadhu Choorna* can be used for subsiding *Shastra Nipata Vrana Vedana* in two forms:

- Mixing Yashtimadhu choorna with Sukhoshna Ghrita and applying it over the *Vaidya Krita Vrana* OR
- Application of Yashtimadhu ghrita, where Yashtimadhu choorna will be processed with *Go ghrita* as per the classical method of *Ghrita* preparation, and then, the *Yashtimadhu Ghrita* prepared will be applied over the *Vaidyakrita Vrana* in the form of *Varti, Pichu,* etc.

Based on the two modes of application, the latter will be much helpful in *Vaidyakrita vrana* as application of *choorna* with *ghrita* directly over the *vrana* will dry up the *choorna* due to the *Kshatoshma* and poses a problem in regular dressing of the *vrana*.

If *Yashtimadhu Ghrita* is applied, it maintains the moisture in the *vrana sthana* and also does not pose any difficulty during the changing of the wound dressing. As *ghrita* is also known to have "*Samskarasya Anuvartanat*" property, it potentiates the *Sheetala* property of *Yashtimadhu* and along with *sheeta veerya* of *ghrita,* it helps in subsiding the *Kshtoshma* leading to *Shamana* of *Shastra Nipata Vrana Vedana*.

2. MATERIALS AND METHODS

2.1. Study Design

The present study is an open-labelled pre and post-test clinical study.

2.2. Sample Size

20 subjects.

2.3. Study Groups

2 Groups – Group A and Group B.

2.4. Source of Samples

Patients visiting the OPD of Atreya Ayurvedic Medical College Hospital and Research Center, Doddaballapura.

2.5. Diagnostic Criteria

Recently operated post-surgical wounds.

2.6. Inclusion Criteria

- Patients with recently operated post-surgical wounds (<3 days)
- Patients of all age group irrespective of gender are selected for the study.

2.7. Exclusion Criteria

- Patients with post-surgical wounds having duration >3 days.
- Patients who are known cases of DM, HTN, and any systemic illness are excluded.
- Patients with HIV and HbSAg are excluded.
- Patients who encountered complications during the surgical procedure.

2.8. Study Duration

The duration of the intervention is 7 days.

2.9. Interventional Medicine

Yashtimadhu Ghrita Pichu, which will be prepared in our own pharmacy.

2.10. Interventional Groups

- Group A: Post-operative surgical wounds will be treated with antibiotics and regular dressing with *Sukhoshna Yashtimadhu ghrita pichu* for 7 days.
- Group B: Post-operative surgical wounds will be treated with antibiotics, analgesics, and regular dressing with *Sukhoshna Yashtimadhu ghrita pichu* for 7 days.

The mode of application of *Pichu* varies as per the site of the post-surgical wound.

E.g.: In Ano Rectal Surgeries/Vaginal surgeries – As *Guda/Yoni Pichu* (Medicine dipped *Pichu* rolled and inserted into the *guda/ yoni)*

Other surgeries – *Pichu* dipped in the medicine is placed over the wound and bandaged.

2.11. Assessment

Every day for 7 days.

2.12. Assessment Criteria

Subjective Criteria – Pain, assessed using Visual Analog Scale

2.13. Statistical Test Used

Paired *t*-test.

2.13.1. Yashtimadhu Ghrita Preparation

Ingredients (for 1 Batch of Preparation):

1. *Yashtimadhu Churna*: 1 Kg
2. *Go Ghrita*: 4 L
3. Water: 16 L.

2.14. Method of Preparation

2.14.1. Ghrita Murchana

- The process of *Ghrita Murchana* is carried out in which the *Ghrita* is taken in a clean, wide-mouthed iron vessel [Figure 2].
- It is heated for 5 min till the characteristic odor and color are obtained.

2.14.2. Yashtimadhu Churna Preparation

- Raw *Yashtimadhu* drug collected in a clean vessel.
- The drug is washed to get rid of the impurities.
- The wet drug is dried in natural light.
- After drying, the drug is taken in a clean *khalva yantra* and triturated to obtain a fine powder in *Churna* form.

2.14.3. Yashtimadhu Kalka preparation

- Clean water is taken in a specific quantity in a clean vessel.
- *Yashtimadhu Churna* is triturated with a specific quantity of water to obtain it in *Kalka* form.
- The bolus of *Yashtimadhu kalka* is prepared.

2.14.4. Ghrita preparation

- The *Murcchita Ghrita* is taken in a clean wide mouthed bigger stainless steel vessel and placed over mild fire.
- To it, the *kalka* prepared and water is added, boiled, and stirred continuously.
- Continuous observation is done to check the attainment of the *Sneha Siddhi Lakshanas*.

2.14.5. Sneaha siddhi lakshana

- *Vartivat sneha kalka:* Kalka attains perfect wick shape when rolled between thumb and index finger.
- *Shabda hino agni kshiptaha:* no sound when subjected to fire.
- *Gandha, varna, rasotpatti:* Odor, color, and taste of added drug are appreciated in the *Ghrita*.
- *Phena shanti cha sarpi:* Disappearance of foam in the *Ghrita* [Figure 3].

2.15. Statistical Analysis and Results

2.15.1. Statistical Analysis in Group A

2.15.1.1. Statistical Analysis of Intervention Adopted for Pain Management in Shastra Nipata Vrana W.S.R. to Post-surgical Wounds in Group A

2.15.1.1.1. Intervention adopted

Antibiotics + Analgesics + Regular Wound Dressing with *Sukhoshna Yashtimadhu Ghrita* for 7 days.

Let us assume that:

- H_0 = Intervention adopted in Group A is not effective in the Pain management of *Shastra Nipata Vrana*

Then,

- H_1 = Intervention adopted in Group A is effective in the Pain management of *Shastra Nipata Vrana*

To know that our assumption is acceptable or not, we have to find the "t" using Paired Student "t" test method, i.e., $t = \bar{d}\sqrt{n-1}/SD$,

where "d" is the mean difference of Mean BT and Mean AT, "n"= number of subjects, SD is the Standard Deviation, SE is the Standard Error, and t is the calculated t value.

2.15.1.1.2. Observations

Mentioned in table 1.

2.15.1.1.3. Interpretation

The calculated "t" value for the mean difference between the pain assessment done before treatment and after treatment in group A with the specified intervention is 55.06 which is greater than the table "t" value, i.e., 3.88.

Hence, our null hypothesis gets rejected and alternate hypothesis gets accepted. Thus, the intervention adopted in Group A is effective in the Pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds.

2.15.2. Statistical Analysis in Group B

2.15.2.1. Statistical Analysis of Intervention Adopted for Pain Management in Shastra Nipata Vrana W.S.R to Post Surgical Wounds in Group B

2.15.2.1.1. Intervention adopted

Antibiotics + Regular Wound Dressing with *Sukhoshna Yashtimadhu Ghrita* for 7 Days.

Let us assume that:

- H_0 = Intervention adopted in Group B is not effective in the Pain management of *Shastra Nipata Vrana*

Then,

- H_1 = Intervention adopted in Group B is effective in the Pain management of *Shastra Nipata Vrana*

To know that our assumption is acceptable or not, we have to find the "t" using Paired Student "t" test method, i.e., $t = \bar{d}\sqrt{n-1}/SD$,

where "d" is the mean difference of mean BT and mean AT, "n"= number of lipomas, SD is the standard deviation, SE is the standard error, and t is the calculated t value.

2.15.2.1.2. Observations

Mentioned in table 2.

2.15.2.1.3. Interpretation

The calculated "t" value for the mean difference between the pain assessment done before treatment and after treatment in group B with the specified intervention is 20.32 which is greater than the table "t" value, i.e., 3.88.

Hence, our null hypothesis gets rejected and alternate hypothesis gets accepted. Thus, intervention adopted in Group B is effective in the pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds.

2.15.2.2. Statistical Analysis of Comparative Effectiveness of Interventions Adopted for Pain Management Of Shastra Nipata Vrana W.S.R to Post-surgical Wounds in Group A and Group B

Let us assume that:

- H_0 = Interventions adopted for pain management in *Shastra Nipata Vrana* in Group A and Group B are equally significant.

Then,

- H_1 = Interventions adopted for pain management in *Shastra Nipata Vrana* in Group A and Group B are not equally significant.

To know that our assumption is acceptable or not, we have to find the "t" using unpaired student "t" test method:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{s^2\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where "$\bar{x}_1$" is the mean difference of Group A, "$\bar{x}_2$" is the mean difference of Group B, "S" is the combined variance calculated by $(n_1 s_1^2 + n_2 s_2^2)/n_1 + n_2 - 2$, where n_1 is

Sample Size of Group A and n_2 is Sample Size of Group B, S_1 is Standard Deviation

of Group A, and S_2 is Standard Deviation of Group B.

2.15.2.2.1. Observations

Mentioned in table 3.

2.15.2.2.2. Interpretation

The calculated "t" value for the mean difference between the interventions adopted for Pain management in *Shastra Nipata Vrana* in Group A and Group B is 14.817 which is greater than the table "t" value, i.e., 3.566.

Hence, our null hypothesis gets rejected and alternate hypothesis gets accepted.

Thus, the interventions adopted in Group A and Group B in the pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds are not equally significant.

Based on the percentage of pain relief calculated (97% in group A and 67% in group B), we can conclude that the intervention adopted in

Group A is effective than intervention adopted in Group B in the pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds in with 99.99 % level of significance.

3. RESULTS

- The calculated "t" value for the mean difference between the pain assessment done before treatment and after treatment in group A with the specified intervention is 55.06 which is greater than the table "t" value, i.e., 3.88. Hence, the Intervention adopted in Group A is effective in the Pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds.
- The calculated "t" value for the mean difference between the Pain assessment done before treatment and after treatment in group B with the specified intervention is 20.32 which is greater than the table "t" value, i.e., 3.88. Hence, the Intervention adopted in Group B is effective in the Pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds.
- The calculated "t" value for the mean difference between the interventions adopted for pain management in *Shastra Nipata Vrana* in Group A and Group B is 14.817 which is greater than the table "t" value, i.e., 3.566. Hence, the interventions adopted in Group A and Group B in the pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds are not equally Significant.
- The intervention adopted for pain management in *Shastra Nipata Vrana* in Group A yielded 97% relief in pain and the intervention adopted for pain management in *Shastra Nipata Vrana* in Group B yielded 67% relief in pain.

Hence, we can conclude that– even though both the interventions provided relief in pain, intervention adopted in Group A is more effective than intervention adopted in Group B in the pain management of *Shastra Nipata Vrana* w.s.r to post-surgical wounds with 99.99% level of significance.

4. DISCUSSION

The primary objective of this study was to evaluate the analgesic and healing efficacy of *Sukhoshna Yashtimadhu Ghrita* applied through *Pichu* on *Shastra Nipata Vrana* (post-surgical wounds). In *Ayurveda*, surgical intervention is considered a form of "*Agantuja Abhighata,*" which leads to the vitiation of *Vata* and *Pitta Dosha*. The localized trauma causes *Shoola*, *Daha*, and *Shopha*.

Yashtimadhu is renowned for its *Vranaropana* and *Shonithasthapana* properties. It contains glycyrrhizin, which exhibits an anti-inflammatory effect without any side effects. Along with these, some more important actions are:

- *Pitta-Vata Shamaka*: Since pain is predominantly a *Vataja* condition and inflammation is *Pittaja*, the *Sheeta Virya* and *Madhura Rasa* of *Yashtimadhu* effectively pacify these *Doshas*.
- *Go-Ghrita* possesses an excellent property known as *Samskarasya Anuvartana*. It penetrates deep into the *Dhatus* and keeps the wound moist, which is a key requirement for modern "moist wound healing" theories.

Significance of *Sukhoshna Go Ghrita* Application:

- Vasodilation: Mild heat facilitates local vasodilation, improving blood circulation to the wound site. Enhanced perfusion ensures the rapid delivery of nutrients and immune cells necessary for tissue repair.
- *Vata Hara*: Warmth is the direct opposite of the *Sheeta Guna* of *Vata Dosha*. By neutralizing this coldness, the *Sukhoshna* application provides immediate relief from *Toda* and *Bheda*.

Significance of *Pichu*:

- The *Pichu* saturated with *Ghrita* prevents the dressing from adhering to the wound. This reduces pain during dressing, which is a significant concern for post-operative patients.
- It provides pain relief compared to conventional dry dressing.

5. CONCLUSION

Based on the clinical observations and statistical analysis of this study, it is concluded that *Sukhoshna Yashtimadhu Ghrita Pichu* is an effective, safe, and non-invasive intervention for the management of pain in *Shastra Nipata Vrana* (post-surgical wounds).

The application of *Sukhoshna Yashtimadhu Ghrita* significantly reduced post-operative pain intensity. The *Vata pittahar*a properties of the formulation effectively countered acute surgical pain.

Beyond pain management, the study observed an improvement in the healing rate. The *Yashtimadhu* (Glycyrrhiza glabra) acted as a potent anti-inflammatory and cooling agent (*Sheeta Virya*), while the *Ghrita* provided a protective barrier, maintaining a moist wound environment conducive to granulation.

6. ACKNOWLEDGMENTS

None.

7. AUTHOR'S CONTRIBUTIONS

All the authors have read and approved the final version of the manuscript.

8. FUNDING

The authors declare that no financial support was received from any organization for the submitted work. In addition, all authors declare that they have no financial relationships with organizations that might be interested in the submitted work.

9. ETHICAL STATEMENT

Ethical approval was not required for this study as it was a review article with data obtained through a literature search.

10. CONFLICT OF INTERESTS

The authors declare no conflicts of interest regarding the publication of this paper.

11. DATA AVAILABILITY STATEMENT

The data analyzed in this review were obtained from publicly available sources, including peer-reviewed articles, observational studies, and surveys accessible via databases.

12. PUBLISHERS NOTE

This journal remains neutral with regard to jurisdictional claims in published institutional affiliations.

REFERENCES

1. Mersky H. Pain terms: A list with definitions and notes on usage. Recommended by the IASP subcommittee on taxonomy. Pain. 1979;6:249-52.
2. Cousins MJ. Introduction to acute and chronic pain: Neural blockade in clinical anesthesia and management of pain. Philadelphia, PA: JB Lippincott, Inc.; 1988.
3. Jorgen BD, Kehlet H. Postoperative pain and its management. In: McMohan SB, Koltzenburg M, editors. Wall and Melzack's Textbook of Pain. 5th ed. Philadelphia, PA: Elsevier Churchill Livingstone; 2006.
4. Horn R, Hendrix JM, Kramer J. Postoperative pain control. In: StatPearls. Treasure Island, FL: StatPearls Publishing; 2024. Available from: https://www.ncbi.nlm.nih.gov/books/nbk544298 [Last accessed on 2025 Dec 02].
5. Blichfeldt-Eckhardt MR. From acute to chronic postsurgical pain: The significance of the acute pain response. Dan Med J. 2018;65(3):B5326.
6. Suner ZC, Kalayci D, Sen O, Kaya M, Unver S, Oguz G. Postoperative analgesia after total abdominal hysterectomy: Is the transversus abdominis plane block effective? Niger J Clin Pract. 2019;22(4):478-84.
7. Lespasio MJ, Guarino AJ, Sodhi N, Mont MA. Pain management associated with total joint arthroplasty: A primer. Perm J. 2019;23:18-169.
8. Long Y, Feng X, Liu H, Shan X, Ji F, Peng K. Effects of anesthetic depth on postoperative pain and delirium: A meta-analysis of randomized controlled trials with trial sequential analysis. Chin Med J (Engl). 2022;135(23):2805-14.
9. Āchārya VJ, Kāvyatīrtha NR, editors. Suśruta. Suśruta saṁhitā. Nibandhasaṅgraha commentary of śrī Dalhanāchārya and nyāyachandrikā pañjikā of Śrī Gayadāsāchārya on Nidānasthāna. Sutra sthāna, 5th adhyāya, 42nd Shloka. Varanasi: Chaukhambha Surbharati Prakashan; 2012.

How to cite this article:
Pashte ND, Narayan KR. An Open Comparative Clinical Study to Evaluate the Efficacy of *Sukhoshna Yashtimadhu Ghrita Pichu* in the Pain Management of *Shastra Nipata Vrana* W.S.R to Post-surgical Wounds. IRJAY. [online] 2026;9(1);6-13.
Available from: http://irjay.in
DOI link- https://doi.org/10.47223/IRJAY.2026.90102

Table 1: Statistical Analysis of observations in Group A

Mean Diff.	SD	SE	t - value (calculated)	*P** value	Remarks
8.45	0.69	0.15	55.06	<0.001	Highly significant

*Table value of "t" at Level of Confidence 99.99% and Degree of Freedom 19 is 3.88

Table 2: Statistical Analysis of observations in Group B

Mean Diff.	SD	SE	t - value (calculated)	*P** value	Remarks
4.80	1.06	0.24	20.32	<0.001	Significant

*Table value of "t" at level of confidence 99.99% and degree of freedom 19 is 3.88

Table 3: Statistical analysis oF observations comparative effectiveness of interventions

Group	Mean			S.D	S.E	"t"	*P**	% Pain relief
	B.T	A.T	Mean Diff.					
Group A *n*=20	8.75	0.30	8.45	0.69	0.15	14.817	<0.001	97
Group B *n*=20	8.05	3.25	4.80	1.06	0.24			59

*Table value of "t" at Level of Confidence 99.99% and Degree of Freedom 38 is 3.566

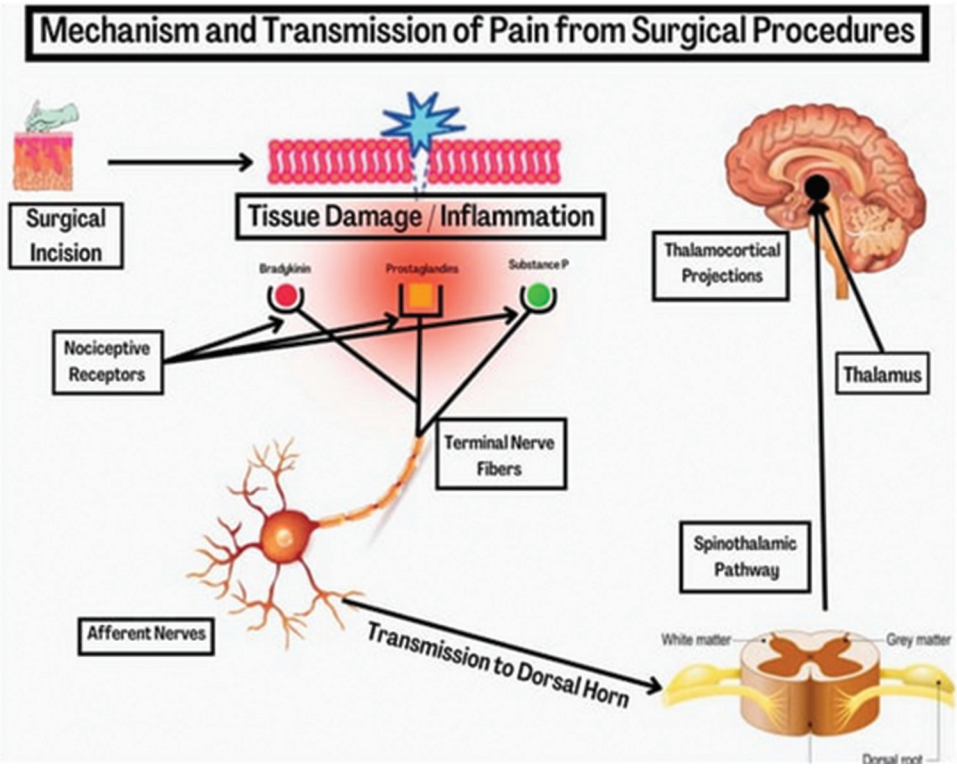

Figure 1: Mechanism and transmission of pain from surgical procedures

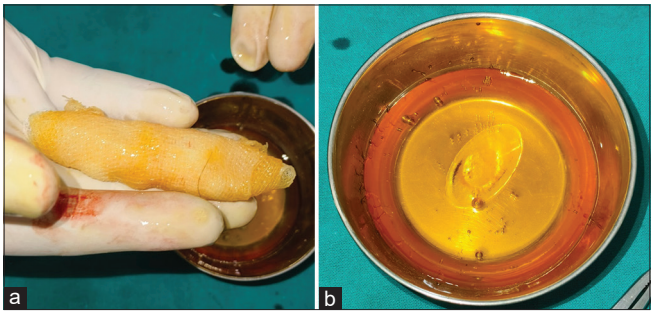

Figure 2: (a and b) Preparing *Yashtimadhu Ghrita Pichu*

Figure 3: (a-c) Few cases where *Yashtimadhu Ghrita Pichu* was used for post-operative pain management