



**A CLINICAL EVALUATION OF *UPANAHA BANDHANA* WITH MEDICATED
PASTE OF *MEDASAKA, ARJUNA, HADJOD, HARIDRA* AND *GUD* IN
MANAGEMENT OF *KROSHTUKSHEERSHA***

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Abstract

According to Ayurvedic scriptures, *Kroshtuksheersha* is characterized by knee joint swelling, pain, warmth, and restricted movement that resembles a jackal's head. It is very similar to contemporary inflammatory knee conditions like pseudogout or synovitis. The clinical effectiveness of *Upanaha Bandhana* made with *Medasaka, Arjuna, Hadjod, Haridra*, and *Gud* in the treatment of *Kroshtuksheersha* was assessed in this study. Thirty participants participated in this seven-day, open-label, single-group clinical research. Pain, swelling, soreness, and range of motion were among the evaluation criteria. The formulation was considered safe, economical, and effective for inflammatory knee problems, as evidenced by the results, which demonstrated a considerable improvement in joint function and a reduction in clinical symptoms.

Key-Words: *Ayurveda, Upanaha Bandhana, Medasaka, Arjuna, Kroshtuksheersha*

Introduction

Kroshtuksheersha is a knee joint ailment that mostly affects the *Janu Sandhi* and is caused by the *Prakopa* of *Vata* and *Rakta*. *Ativedana*, *Shotha*, *Ushna sparsha*, redness and limited movement are the symptoms of this illness. The name *Kroshtuksheersha* means jackal and "*Sheersha*" that comes from the fact that in severe cases, the swelling becomes noticeable and rounded, resembling the head of a jackal. According to Ayurveda, vitiated *Rakta* results in inflammation and discolouration whereas aggravated *Vata dosha* produce discomfort and stiffness. When combined, they result in the typical symptoms of knee discomfort, edema, and trouble moving. In contemporary medicine, *Kroshtuksheersha* has been linked to inflammatory conditions of the knee joint, including pseudogout, synovitis, and sino-arthritis. These disorders cause pain, stiffness, and discomfort around the joint due to excessive fluid buildup and inflammation.

Achieving safe and successful care of *Kroshtuksheersha* remains a major clinical problem in modern practice, despite the paucity of accessible treatment choices and scientific data. As a result, easy, affordable, and long-lasting Ayurvedic methods that provide superior alleviation and functional recovery are becoming more and more popular. Among these, *Upanaha Bandhana* is potentially effective topical remedy that lessens *Stambha*, *Shotha* and *Shoola*. The medications such as *Medasaka*, *Arjuna*, *Hadjod*, *Haridra* and *Gud* are recognized for their anti-inflammatory, analgesic and joint-strengthening qualities. In order to provide a link between Ayurvedic knowledge and contemporary therapeutic expertise, this study attempted to assess the effectiveness of medicated *Upanaha Bandhana* in the treatment of *Kroshtuksheersha*.

OBJECTIVE

- ✓ To evaluate the efficacy and safety of *Upanaha Bandhana* prepared with mediated paste of *Medasaka*, *Arjuna*, *Hadjod*, *Haridra*, and *Gud* in the management of *Kroshtuksheersha*.
- ✓ To explore the therapeutic potential of these drugs in reducing *Shoola*, *Shotha* and evaluate improvement in joint mobility and functional status.
- ✓ The ultimate objective was to establish this cost-effective, natural, and evidence-based therapy as a promising approach for managing in contemporary clinical practice.

METHODOLOGY

A total of 30 clinically diagnosed patients were selected from the Outpatient (OPD) and Inpatient (IPD) departments of the Government Ayurveda hospital based on the inclusion and exclusion criteria.

- ✓ Type of study: Open-labelled, single-group clinical study.
- ✓ Sample Size: 30 patients
- ✓ Study Duration: 02 months

All appropriate patient consent forms were obtained after clearly explaining the study's purpose and procedures. Patients voluntarily provided informed consent for the use of their clinical information and images, with assurance of confidentiality and anonymity.

STUDY DESIGN PROTOCOL:

1. Collection of Raw Materials and Preparation of Medicated Paste

- ✓ The required crude drugs *Medasaka*, *Arjuna*, *Hadjod* and *Haridra* were procured in powdered form, from the authenticated sources.
- ✓ The powdered drugs were mixed uniformly. *Gud* was gently melted over a gas stove, and then gradually combined with the powdered ingredients to form a smooth, homogeneous paste. This medicated paste was used for preparing the *Upanaha Bandhana*.

2. Application of medicated *Upanaha Bandhana* on affected regions

A clean cotton cloth was taken, and freshly prepared medicated paste was evenly spread over it while maintaining a mild temperature. The medicated *Upanaha Bandhana* applied locally over the affected joint area of each patient. As the paste cools, mild heat fomentation was given by reheating the cloth every 15–20 minutes to maintain warmth and therapeutic effect.

- ✓ The procedure was performed once daily for 7 consecutive days, with each application retained for 3-4 hours.

3. Evaluation and interpretation of the data

- ✓ The results were analyzed based on changes observed in the clinical parameters before and after application. The degree of improvement was statistically

evaluated and summarized to determine the overall efficacy of the Medicated *Upanaha Bandhana* in the management of *Kroshtuksheersha*.

Inclusion Criteria:

1. Patients having Classical signs and symptoms of *Kroshtuksheersha*.
2. Patients between the age group 25–70 years of age.
3. Patients of either sex-both male and female patients.
4. Patients willing to follow the treatment protocol and provide written informed consent.

Exclusion Criteria:

1. Patients with Traumatic joint injuries or fractures related condition.
2. Patients with long-term history of Infective or systemic inflammatory joint diseases (e.g., septic arthritis, rheumatoid arthritis).
3. Pregnant or lactating women.

Assessment Criteria:

The therapeutic response was evaluated on the clinical parameters as mentioned in **Table 1**; each parameter were graded using a suitable scoring system before and after application to assess the level of clinical improvement.

Table 1: Grading of assessment parameters

Parameter	Grade 0	Grade 1	Grade 2	Grade 3	Grade 4
Pain	No pain	Mild pain; no interference with routine work	Moderate pain; limits some activities	Severe pain; marked limitation, needs support/medication	Very severe/unbearable pain; activities impossible
Swelling	No swelling	Mild; barely visible	Moderate; visible but not tense	Severe; tense/shiny	—

Parameter	Grade 0	Grade 1	Grade 2	Grade 3	Grade 4
Tenderness	No tenderness	Mild; on deep pressure	Moderate ; on palpation	Severe; patient withdraws	—
Range of Joint Movement (ROM)	Full ROM	Mild restriction ($\leq 25\%$)	Moderate restriction (26–50%)	Severe restriction (51–75%)	Very severe restriction ($>75\%$)

OBSERVATIONS

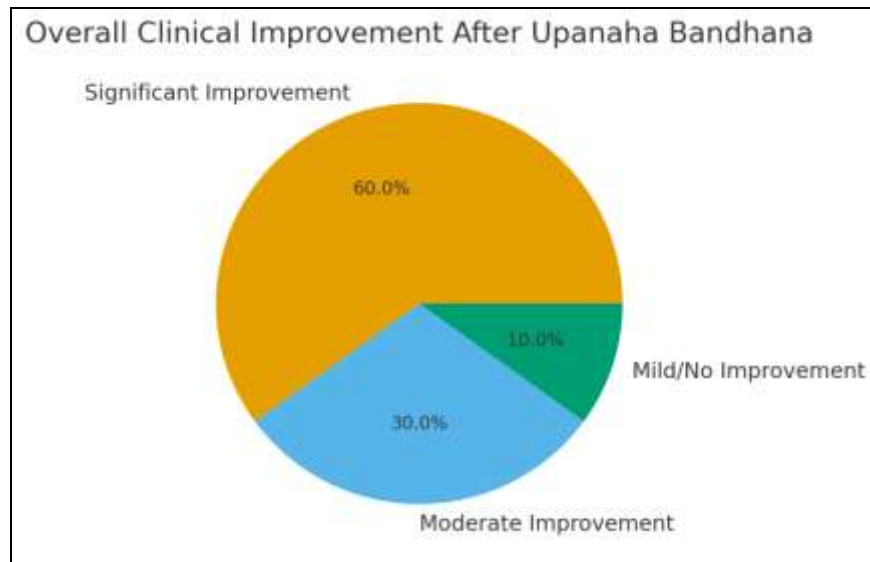
According to the clinical observations, the majority of patients initially complained of uniform swelling and soreness around the afflicted knee joint in addition to moderate to severe pain. Joint effusion and stiffness significantly limited range of motion. Patients started to gradually experience symptom reduction on the second day of treatment. Along with a progressive improvement in mobility, they noted a discernible decrease in joint warmth and heaviness. Many participants reported reduced need on outside assistance and improved walking skills. No negative side effects, including irritation, burning, rash, or discomfort, were noted during the duration of treatment, suggesting that all patients handled the therapy well.

RESULTS

Most patients had between 50 and 70 percent pain relief after receiving the medicated *Upanaha Bandhana* for seven days. A noticeable decrease in joint circumference and effusion, as well as a reduction in warmth and redness, indicated that swelling had significantly improved. In most patients, palpable tenderness decreased from moderate or severe to low or nonexistent. Additionally, range of motion significantly increased, with flexion and extension rising by almost 20–35%, improving functional activities like walking, climbing stairs, and sitting-to-standing transitions. All major clinical indices showed moderate to substantial improvement in almost 80–90% of individuals, indicating strong therapy efficacy. The grading improvement in assessment parameters after the therapy is depicted in **Table 2** and **Figure 1** depicted % of comparative improvement after receiving the therapy.

Table 2: Improvement in assessment parameters

Parameter	Mean Baseline Grade	Mean Post-Treatment Grade	% Improvement
Pain	3 (Severe)	1–1.5 (Mild)	50–70%
Swelling	2–3 (Moderate to Severe)	0–1	60–80%
Tenderness	2–3	0–1	60–85%
Range of Joint Movement (ROM)	Grade 3 (Severe restriction)	Grade 1–2	20–35% functional gain

**Figure 1: Comparative improvement in % after receiving the therapy**

As per above figure 10% of patients reported mild or no improvement, 30% exhibited moderate improvement, and about 60% showed significant improvement. These results are in good agreement with the general clinical finding that 80–90% of patients had moderate to significant therapeutic response after the intervention.

Discussion

The results of this clinical investigation unequivocally showed that *Upanaha Bandhana* made with *Medasaka*, *Arjuna*, *Hadjod*, *Haridra*, and *Gud* offers significant therapeutic advantages in the treatment of *Kroshtuksheersha*. The warm medicated

paste appears to act through multiple synergistic mechanisms. While its mucilage content improves joint lubrication, *Medasaka* provides its *Sandhivardhaka* and *Shothahara* characteristics. *Arjuna* promotes microcirculation and tissue healing while having analgesic and anti-inflammatory properties. *Hadjod* also has anti-inflammatory and osteoprotective properties that promote soft tissue repair and lessen edema. *Haridra's* curcumin content suppresses cytokine-driven inflammation, offering potent anti-inflammatory and antioxidant effects. *Gud* facilitates medication permeation by acting as an efficient binding agent and producing gentle heat. The continuous warmth of the *Upanaha* dilates local blood vessels, improves drug absorption, reduces *Vata*, and alleviates *Stambha*. It also helps to clear micro-obstructions, softens tissues and reduces inflammatory edema. Clinically, this therapy addresses both symptomatic relief such as reduction in pain and swelling and functional improvements, including restored mobility and enhanced daily activity performance.

Future Perspectives:

Future studies can expand on this work to investigate the broader therapeutic potential of *Upanaha Bandhana* in a variety of inflammatory conditions, which would be a major advancement in the efficient treatment of *Kroshtuksheersha* and other related conditions.

Conclusion

The experiment aims to demonstrate that *Upanaha Bandhana* made with the medicated paste greatly improves joint mobility and general function in *Kroshtuksheersha* while reducing pain and edema. The results may offer a trustworthy, empirically supported formulation for the treatment of *Kroshtuksheersha* and related musculoskeletal conditions.

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