

**MANAGEMENT OF ACUTE LOW BACK PAIN (KATISHOOLA) WITH SNIGDHA
AGNI KARMA – A CASE SERIES****Dr. Kulkarni Vedant Mangesh^{1*}, Dr. Manjunath S. Naregal², Dr. Shankar S.³**¹3rd Year PG Scholar, Department of Shalya Tantra, SDM Institute of Ayurveda and Hospital, Bengaluru, India.²Assistant Professor, Department of Shalya Tantra, SDM Institute of Ayurveda and Hospital, Bengaluru, India.³Professor, HOD Department of Shalya Tantra, SDM Institute of Ayurveda and Hospital, Bengaluru, India.***Corresponding Author: Dr. Kulkarni Vedant Mangesh**

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ABSTRACT

Introduction: Low back pain is the pain of variable duration in the lumbar region of the spine. It is a cause of physical morbidity and disability. Back pain affects 60-80% of people at some time in their lives. Acute low back pain is one of the most common reasons for adults to visit physician. It is a neuromusculoskeletal condition which is called Katishoola in Ayurveda. Ideal Primary care management of low back pain should result in early return to normal activities, with less to no side effects. Acharya Sushruta advised Agnikarma in severe painful conditions of skin, muscles, veins, nerves, joints, and bones. **Material and methods:** This Study includes 5 cases of acute low back pain in age group of 30 -45 years of varying intensities the details of which are furnished in the paper. **Treatment:** Treated with Snigdha Agnikarma for acute pain management, which is a Para surgical procedure recommended by acharya Sushruta for management of pain. Results: Clinically and statistically significant result was obtained in the study. **Discussion:** This technique of administering Snigdha Agnikarma shows promise as pain management technique engaging both neurological and physiological pain pathways.

KEYWORDS: Low back pain, Acute pain, Katishoola, Agnikarma, Snigdha Agnikarma.**INTRODUCTION**

Acute low back pain stands as one of the primary reasons adults seek medical consultation. According to survey 70% of population visit clinic for due to low back pain at least once in their life.^[1] Characterized as a complex neuromusculoskeletal disorder, its presentation closely aligns with Katishoola in classical Ayurvedic literature.^[2]

In contemporary clinical practice, management strategies center heavily on high-dose oral non-steroidal anti-inflammatory drugs (NSAIDs), analgesics, and muscle relaxants. Although these pharmacotherapies offer symptomatic relief, prolonged or repeated reliance can present systemic risks.

Ayurveda recognizes Agni Karma for its ability to manage pain conditions originating from Vata and Kapha vitiation. Snigdha Agni Karma specifically incorporates unctuous elements (Snigdha Media like oils or fats)

alongside thermal energy to treat conditions where dryness or acute spasm compounds tissue irritation.^[3]

This case series evaluates the clinical outcomes of five patients treated with Snigdha Agni Karma for acute low back pain, assessing its efficacy in rapidly alleviating pain intensity and physical stiffness.

MATERIALS AND METHODS**Patient Selection**

Five adult patients presenting to the outpatient department (OPD) with sudden-onset low back pain within 2 to 3 hours of occurrence were included in this case series.

- Inclusion Criteria: Sudden onset of acute low back pain (≤ 3 hours duration), willingness to undergo Agni Karma procedure, localized tenderness in the lumbar region.

- Exclusion Criteria: Uncontrolled systemic diseases, local skin infections or open wounds at the lumbar site, pregnancy.

Diagnostic Assessment

Patients underwent a clinical evaluation including history taking and physical examination to assess symptom onset, pain distribution, presence of lumbar stiffness, and dominant Dosha involvement (Vata or Vata-Kapha). Clinical diagnoses across the cohort included lumbar

muscle strain, sciatica, and intervertebral disc prolapse (IVDP).

Intervention Protocol (Snigdha Agni Karma)

Materials Required: Medicated unctuous oil, fresh chopped green leaves (including Eranda leaves), heating pan/wok, burner, digital probe thermometer, protective gloves, and uncut eranda leaves for pottali.



Fig1: Materials Required for Snigdha Agni karma.

Procedure

1. The unctuous oil was heated in a vessel on a controlled flame until reaching a temperature of approximately 170°C.
2. Freshly chopped leaves were submerged and processed in the hot oil.
3. The unctuous herbal mixture was bound into a Pottali.
4. The warm, oil-infused leaf pouch was applied directly and rhythmically over the marked tender zones of the lumbar back region (Katishoola site).



Fig2: Procedure of Snigdha Agni Karma

Post-Procedure Care

Patients were monitored for local thermal responses, skin integrity, and immediate pain changes. Follow-up schedules were tailored based on diagnostic subgroups.

Outcome Measures

The primary parameter was pain intensity evaluated via the Visual Analog Scale (VAS) ranging from 0 (No Pain)

to 10 (Unbearable/Worst Possible Pain) recorded immediately before and after treatment.

RESULTS

Baseline Patient Characteristics

The study population comprised five individuals (3 females, 2 males) aged between 35 and 45 years

Table 1: Patient Demography and Baseline Charecteristics.

Pt No	Age	Sex	Occupation	Pain	Stiffness	Dosha	Diagnosis
1	35	F	Home maker	+	-	V	Sciatica
2	42	F	IT Professional	+	+	VK	Muscle Strain
3	45	M	IT Professional	+	-	V	Grade 3 IVDP
4	38	M	Delivery Agent	+	+	VK	Muscle Strain Sciatica
5	40	F	Home maker	+	-	V	Acute Low back pain

Visual Analog Scale (VAS) Outcomes**Table 2: Visual Analog Scale (VAS) Outcomes before and after treatment.**

Patient No	VAS scale		
	Before	After	Difference
1	8	4	4
2	8	4	4
3	6	4	2
4	10	2	8
5	8	4	4
Average	8	3.6	4.4

Statistical Analysis**Table 3: Statistical analysis of Outcomes Diagnosis-Specific Subgroup Observations.**

Test Type	Test Name	Statistic	P-value	Result (at $\alpha = 0.05$)	Confidence Interval
Parametric	Paired Samples t-test	5.5	0.003	Statistically Significant	-
Non-Parametric	Wilcoxon Signed-Rank Test	0	0.031	Statistically Significant	-
Confidence Interval	Mean Difference (95% CI)	-	-	Interval does not include 0	(2.34, 6.46)

Muscle Strain (Patients 2 & 4): Experienced immediate and prolonged relief following a single treatment sitting.

Sciatica (Patients 1 & 4): Exhibited reduction in pain intensity; however, residual symptoms prompted a regimen of 3 consecutive daily sittings of Snigdha Agni Karma followed by Siravyadha (venesection) on Day 3.

Grade 3 IVDP (Patient 3): Showed less initial relief (2-point VAS drop) compared to other cases. Management required supportive care and 5 additional sittings of Agni Karma, which lengthened the intervals between severe pain episodes until the pain became fully tolerable.

DISCUSSION

The results from this 5-case series demonstrate that Snigdha Agni Karma provides rapid pain relief, with an average VAS reduction of 4.4 points across the cohort. Both parametric and non-parametric statistical tests yielded significant p-values (0.003 and 0.031, respectively), supporting the clinical utility of the intervention.

Ayurvedic Mechanism of Action^[4,11]

According to Ayurvedic principles, pain (Shoola) cannot occur without the involvement of vitiated Vata Dosha.

The therapeutic application of Agni combined with unctuous media (Taila) possesses specific Gunas:

Ushna: Directly counters the cold quality of Vata and Kapha.

Sukshma & Teekshna: Enables swift deep-tissue absorption through channels.

Ashukari: Promotes rapid symptomatic relief and muscle relaxation.

Probable Neurophysiological Mechanism of Action

- Gate Control Theory & Spinothalamic Tract Modulation^[5]:** Localized application of heat stimulates large-diameter A β nerve fibers. This activation inhibits pain signal transmission carried by small-diameter nociceptive fibers (C and A δ fibers) at the spinal cord level via the spinothalamic tract.
- Endorphin Receptor Activation^[10]:** Thermal stimulation prompts the activation of μ - and δ -opioid receptors, encouraging endogenous endorphin release to elevate pain thresholds.
- Neurotransmitter Modulation^[5]:** The procedure enhances descending inhibitory pathways by increasing serotonin and norepinephrine while upregulating inhibitory neurotransmitters (GABA, glycine) and downregulating excitatory signaling (glutamate).
- Anti-Inflammatory Effects^[7]:** Applied heat suppresses local microglial activation, decreasing local inflammatory cascades.
- Vant Hoff's Law^[6]:** Local heat elevation accelerates enzymatic and metabolic processes, accelerating cellular repair, reducing hypertonicity, and relieving muscle spasm.

Limitations and Future Scope

While initial findings are positive, the study's primary

limitation is its small sample size (n=5) and lack of a blinded control arm. Randomized controlled trials with larger cohorts are recommended to further evaluate long-term outcomes.

CONCLUSION

This case series indicates that Snigdha Agni Karma is a useful parasurgical technique for managing acute low back pain (Katishoola). Its rapid onset of action, combined with sound Ayurvedic and neurophysiological mechanisms, supports its value as a non-pharmacological option for acute lumbar pain management.

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