



A CASE REPORT ON PADABHYANGA AND SHIROABHYANGA IN THE MANAGEMENT OF NIDRANASHA (INSOMNIA)

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ABSTRACT

Background: Nidranasha (insomnia) is increasingly prevalent worldwide and significantly impacts quality of life. Ayurveda identifies Nidra as one of the Trayopastambha (three pillars of health), disturbance of which results in physical and psychological morbidity. Classical Ayurvedic therapies including Padabhyanga (foot massage) and Shiroabhyanga (head massage) with medicated oils are advocated to promote sleep and reduce stress.

Case Presentation: A 36-year-old female with chronic Nidranasha presented with difficulty initiating sleep, frequent night awakenings, daytime fatigue, and mild anxiety. Ayurvedic examination revealed Vata-Pitta prakriti and Vata aggravation with Manasika Rajas predominance. She was treated with daily Padabhyanga using Ksheerabala Taila and Shiroabhyanga with Bhringaraja Taila for 30 days, along with supportive lifestyle advice.

Results: Within one week, she experienced improved sleep onset and reduced anxiety. After two weeks, night awakenings reduced, and by one month, she achieved consistent 6–7 hours of restful sleep, with improved energy and reduced irritability. Standardized assessment using the Insomnia Severity Index (ISI) reduced from 22 (severe) at baseline to 6 (sub-threshold insomnia) after therapy.

Conclusion: Padabhyanga and Shiroabhyanga demonstrated significant improvement in sleep quality in a case of chronic Nidranasha, suggesting their potential as safe, non-pharmacological interventions. Further controlled clinical studies are warranted to validate these findings.

KEYWORDS: Nidranasha, Insomnia, Ayurveda, Padabhyanga, Shiroabhyanga, Panchakarma

INTRODUCTION

Insomnia is one of the most common sleep disorders globally, with prevalence estimates ranging from 10% to 30% in the adult population. It is associated with fatigue, impaired concentration, poor occupational performance, and increased risk of cardiovascular, metabolic, and psychiatric disorders. Conventional management primarily involves hypnotic medications, which are associated with dependency, tolerance, and adverse effects.

Ayurveda, the ancient Indian system of medicine, considers Nidra (sleep) as one of the Trayopastambha (three supporting pillars of life), alongside Ahara (diet) and Brahmacharya (regulated lifestyle). Disturbance of Nidra results in deterioration of health and wellbeing. Nidranasha (insomnia) is described in classical texts as arising from Vata and Pitta vitiation, aggravated by irregular lifestyle and Manasika Dosha imbalance (Rajas and Tamas).

Ayurvedic texts prescribe Padabhyanga (massage of the feet) and Shiroabhyanga (massage of the head) with medicated oils as therapeutic modalities for promoting relaxation, nourishing the nervous system, and inducing sleep. These therapies are simple, non-invasive, and can be practiced as part of daily routine (Dinacharya). Previous studies on massage therapies also report

improved sleep quality through activation of parasympathetic activity and regulation of stress hormones.

This case report describes the management of chronic Nidranasha in a 36-year-old female using Padabhyanga and Shiroabhyanga. Case Presentation (Materials and Methods)

Patient Information:

- Age/Sex: 36-year-old female
- Occupation: School teacher
- Marital Status: Married, two children
- Chief Complaints: Difficulty initiating sleep for two years, frequent nocturnal awakenings, daytime fatigue, irritability, and mild anxiety.

History of Present Illness: Symptoms began gradually two years prior, coinciding with increased occupational workload and domestic responsibilities. She reported spending more than 1 hour attempting to fall asleep most nights, with frequent awakenings and inability to return to sleep. She avoided pharmacological sleep aids due to concerns about dependence.

Past History: No systemic illnesses such as diabetes, hypertension, or psychiatric disorders. No history of substance use.

Family History: Mother with anxiety disorder and poor sleep patterns.



Clinical Findings:

- General condition: Moderately nourished, cooperative
- Pulse: Vata-Pitta predominance
- Prakriti: Vata-Pitta
- Vikriti: Vata aggravation with Manasika Rajas predominance
- Agni: Vishamagni
- Mala/Mutra: Normal
- Jihwa: Slightly coated
- Satva: Madhyama

Diagnosis

- Ayurvedic Diagnosis: Nidranasha due to Vata-Pitta prakopa with Manasika dosha involvement
- Modern Correlation: Chronic insomnia (per DSM-V criteria)

Therapeutic Intervention:

- Padabhyanga: Daily massage of the soles with Ksheerabala Taila for 15 minutes before bedtime.
- Shiroabhyanga: Daily gentle massage of the scalp with Bhringaraja Taila for 20 minutes in the evening.
- Duration: 30 consecutive days.
- Supportive Advice: Early light dinner, avoidance of screen exposure after 9 pm, light evening walk, practice of Anulom-Vilom pranayama, and consistent sleep schedule.

RESULTS

The patient maintained a daily sleep diary and was assessed using the Insomnia Severity Index (ISI).

Week 1: Sleep latency reduced from >60 minutes to ~30 minutes. Anxiety at bedtime reduced. ISI score improved from 22 (severe) to 17 (moderate).

Week 2: Fewer nocturnal awakenings reported. Total sleep duration increased to 5–6 hours. Daytime energy improved. ISI reduced to 12 (sub-threshold insomnia).

Week 4: Consistent 6–7 hours of sleep without significant interruptions. Improved mood, reduced irritability, better occupational functioning. ISI score further reduced to 6.

No adverse events were reported during therapy.

DISCUSSION

This case demonstrates the effectiveness of Padabhyanga and Shiroabhyanga in improving sleep quality in a patient with chronic Nidranasha. Ayurveda describes Abhyanga as a daily practice that promotes longevity, nourishes tissues, and induces sound sleep (Charaka Sutrasthana 21/54). Padabhyanga specifically alleviates fatigue, calms Vata dosha, and promotes relaxation by stimulating marma points and nerve endings in the feet. Shiroabhyanga, recommended in Ashtanga Hridaya, alleviates stress, nourishes the sense organs, and promotes sound sleep.

From a modern perspective, massage therapies reduce sympathetic overactivity and enhance parasympathetic tone, leading to reduction in cortisol levels and improvement in melatonin secretion. Studies have demonstrated massage as

beneficial in reducing anxiety, improving sleep quality, and promoting relaxation in various populations.

This patient's progressive improvement in sleep onset, duration, and quality correlates with these mechanisms. The marked reduction in Insomnia Severity Index (22 to 6) within 30 days highlights the potential efficacy of these simple interventions.

Limitations: Being a single case report, results cannot be generalized. The placebo effect and concurrent lifestyle modifications may have contributed to improvements. Nevertheless, the absence of pharmacological intervention and the sustained improvements observed support the therapeutic potential of Padabhyanga and Shiroabhyanga.

Future Scope: Larger randomized controlled trials are necessary to validate these findings and explore their application in broader populations.

CONCLUSION

This case supports the clinical efficacy of Padabhyanga and Shiroabhyanga in the management of Nidranasha (insomnia). They offer a safe, non-pharmacological, and holistic approach that aligns with both Ayurvedic and modern perspectives on health. Regular incorporation of these therapies may benefit patients with insomnia and contribute to overall wellbeing.

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Pharmacological Action of Medicated Oils

Ksheerabala Taila: Ksheerabala Taila is prepared with Bala (Sida cordifolia), cow's milk, and sesame oil. It is widely used for conditions involving Vata aggravation, including neurological disorders, insomnia, and stress-related conditions. Bala is Madhura (sweet), Sheeta (cooling), and Vata-pacifying,



contributing to nervous system nourishment. Ksheerabala Taila is described as Snigdha (unctuous), Sheeta (cooling), and Balya (strengthening), making it highly effective in calming the mind, reducing hyperexcitability, and inducing relaxation.

Bhringaraja Taila: Bhringaraja (*Eclipta alba*) is Tikta (bitter) and Katu (pungent) in rasa, with Katu Vipaka and Ushna Virya, primarily balancing Vata and Kapha doshas. It is specifically indicated in classical texts for promoting sound sleep, nourishing the scalp and sense organs, and reducing stress and anxiety. Regular application on the scalp has been traditionally known to enhance relaxation and mental calmness.

Probable Mode of Action:

The action of Padabhyanga with Ksheerabala Taila may be explained through stimulation of local marma points and peripheral nerve endings in the feet, which activate parasympathetic pathways, reduce sympathetic hyperactivity, and promote relaxation. Absorption of lipid-soluble active phytoconstituents through transdermal route contributes to central nervous system effects, including modulation of neurotransmitters such as GABA and serotonin.

Shiroabhyanga with Bhringaraja Taila exerts a calming effect on the hypothalamic-pituitary-adrenal axis, reducing cortisol secretion and enhancing melatonin synthesis. The tactile stimulation of scalp massage enhances circulation, reduces muscular tension, and induces a relaxation response, thereby improving initiation and maintenance of sleep. Together, these therapies act synergistically to pacify aggravated Vata, reduce psychological stress, and restore normal sleep architecture.

Classical References

- Ksheerabala Taila is mentioned in the Ashtanga Hridaya and Sahasrayoga as highly effective in Vata Vyadhi and Nidranasha, owing to its Balya and Medhya properties.
- Charaka (Sutrasthana 21/54) emphasizes that Abhyanga induces sound sleep and nourishment to the dhatus.
- Bhringaraja is described in Bhavaprakasha Nighantu and Raj Nighantu as Nidrajanana (sleep-inducing) and Manas-shamaka (mind-calming), beneficial in stress and insomnia.
- Vagbhata recommends Shiroabhyanga for promoting sound sleep, improving clarity of sense organs, and reducing fatigue (Ashtanga Hridaya, Sutrasthana 2/10).