

A SINGLE CASE STUDY ON KSHEER BALA TAILA NASYA AND BRAHMI VATI IN THE MANAGEMENT OF ANIDRA (INSOMNIA)

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ABSTRACT

Background: *Anidra* (insomnia) is a pervasive sleep disorder characterized by difficulty initiating or maintaining sleep, leading to significant daytime impairment. In Ayurveda, *Nidra* (sleep) is considered one of the three *Upastambhas* (sub-pillars) of life, essential for health and wellbeing. *Anidra* is primarily attributed to vitiation of *Vata Dosha* affecting *Manovaha Srotas* (mind channels). Contemporary management with hypnotics and sedatives often carries adverse effects and dependency risks. Ayurvedic interventions including *Nasya* (nasal drug administration) and oral *Vati* (tablets) offer a holistic, side-effect-free approach. **Case Presentation:** A 45-year-old female software professional presented with a six-month history of delayed sleep onset (>90 minutes), frequent nocturnal

awakenings, early morning awakening, and significant daytime fatigue, irritability, and impaired concentration. She had been using over-the-counter sedatives intermittently. She was diagnosed with *Vata-Pitta* predominant *Anidra*. A 21-day integrated treatment protocol was instituted comprising *Ksheer Bala Taila Nasya* (8 drops each nostril, evening, for 14 days) and *Brahmi Vati* (500 mg twice daily with warm water for 21 days), supplemented with *Nidana Parivarjana* (avoidance of causative factors) and *Satvavajaya Chikitsa* (mind calming measures). **Results:** Marked improvement was observed across all parameters. Pittsburgh Sleep Quality Index (PSQI) score reduced from 17 to 6. Sleep latency decreased from 90 to 20 minutes; total sleep duration increased from 4.5 to 7 hours; daytime symptoms resolved significantly. The patient discontinued sedative use by day 14. **Conclusion:** The synergistic action of *Ksheer Bala Taila Nasya*—pacifying *Vata* through the nasal route—and *Brahmi*

Vati—providing *Medhya* (nootropic) and Tranquilizing effects—demonstrated significant efficacy in managing *Anidra*. This case underscores Ayurveda's potential as a safe, effective, and sustainable approach to insomnia management, addressing both *Dosha* pathology and psychological components.

KEYWORDS: *Anidra*, Insomnia, *Ksheer Bala Taila*, *Nasya*, *Bhramit Vati*, *Panchakarma*, *Ayurveda*.

INTRODUCTION

Sleep, or *Nidra*, holds a position of paramount importance in Ayurveda as one of the *Trayopastambha*—the three pillars supporting life, alongside *Ahara* (food) and *Brahmacharya* (righteous conduct). The classical texts unequivocally state that happiness, misery, nourishment, emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life, and death all depend upon proper or improper sleep.^[1] This recognition of sleep's centrality to holistic health predates and surpasses modern understanding in its integrative depth.

Anidra or *Nidranasha*—the condition of sleeplessness—is described as a *Vata Nanatmaja Vikara* (a disease specifically arising from *Vata* vitiation) and is also associated with *Vataja Jwara* (fever of *Vata* origin).^[2] Its presentation in classical texts is remarkably detailed, encompassing not just the inability to sleep but also a constellation of associated symptoms (*Upadrava*) including *Jrimbha* (excessive yawning), *Tandra* (drowsiness or stupor), *Angamarda* (body ache), *Shirogourav* (heaviness of head), *Bhrama* (giddiness), and *Glani* (fatigue).^[2]

The etiopathogenesis of *Anidra* involves the vitiation of *Vata* Dosha, which, when aggravated, occupies the *Manovaha Srotas* (channels carrying mind functions), preventing the natural detachment of the mind (*Mana*) from the sensory (*Gyanendriya*) and motor (*Karmendriya*) organs that is necessary for sleep to occur.^[3] This derangement is often precipitated by *Manasika Nidana* (psychological factors) such as *Chinta* (worry), *Krodha* (anger), *Bhaya* (fear), and *Shoka* (grief), alongside *Ahara* and *Vihara* (dietary and lifestyle) factors that aggravate *Vata*.^[4] Modern lifestyle, with its attendant stress, irregular routines, excessive screen time, and late-night caffeine consumption, acts as a contemporary *Hetu* (causative factor) for this age-old ailment.

Contemporary management of insomnia primarily relies on benzodiazepines and non-benzodiazepine hypnotics, which, while effective in the short term, carry significant drawbacks including daytime somnolence, cognitive impairment, dependence, tolerance, and withdrawal symptoms. This has led to a growing interest in integrative and non-pharmacological approaches.

Ayurveda offers a comprehensive framework for managing *Anidra*, encompassing *Nidana Parivarjana* (avoidance of causative factors), *Samana Chikitsa* (pacifying therapies) including oral medications and external therapies, and *Panchakarma* (bio-purificatory procedures). Among the *Panchakarma* therapies, *Nasya Karma*—the nasal administration of medication—is considered the most effective treatment for disorders above the clavicle (*Urdhwajatrugata Vikara*), directly addressing the *Shringataka Marma*, a vital point where the channels of the head converge, including the nose, eyes, ears, and throat.^[5] The nose is described as the gateway to the head (*Nasa hi shiraso dwaram*)^[6], making *Nasya* an unparalleled route for delivering therapeutic agents to the brain.

Nasya acts by clearing the *Shira* (head) channels and pacifying *Vata*, thereby promoting sensory clarity and mental tranquility. Among the various *Tailas* (medicated oils) used for *Nasya* in *Anidra*, *Ksheer Bala Taila* holds a special place. This formulation combines the *Vatahara* (Vata-pacifying) properties of *Bala* (*Sida cordifolia*) with the nourishing and *Snigdha* (unctuous) qualities of *Ksheera* (cow's milk), which is considered to have a calming effect on both *Vata* and *Pitta*. *Acharya Sushruta* specifically recommends *Pratimarsha Nasya* (daily or evening nasal administration) with oil to ensure *Sukhanidraprabhodanam*—comfortable sleep and ease of waking.^[7] Recent clinical trials have demonstrated the efficacy of *Ksheer Bala Taila Nasya* in managing primary insomnia, with significant improvements in PSQI scores observed within 14–30 days.

Concurrently, *Brahmi Vati* is a classical Ayurvedic formulation renowned for its *Medhya* (nootropic or intellect-promoting) and *Manasaprasadaka* (mind-calming) properties. The key ingredient, *Brahmi* (*Bacopa monnieri*), is widely documented for its ability to enhance cognitive function, reduce anxiety, and promote sleep through modulation of neurotransmitters like serotonin and melatonin. In clinical settings, *Brahmi Vati* has been effectively used as an adjunct to external therapies for insomnia, showing significant reduction in subjective and objective sleep parameters.

This case study evaluates the integrated application of *Ksheer Bala Taila Nasya* and *Brahmi Vati* in a patient with primary insomnia. It aims to illustrate the therapeutic potential of this combination, grounded in classical Ayurvedic principles and substantiated by modern clinical assessment tools.

CASE REPORT

Patient Information: A 45-year-old female, working as a software professional, residing in an urban setting, presented to the outpatient department of Ayurveda with complaints of:

- Difficulty falling asleep (sleep onset latency > 90 minutes) for the past six months.
- Frequent nocturnal awakenings (3–4 times per night).
- Early morning awakening (around 3:00–4:00 AM) with inability to resume sleep.
- Daytime symptoms: severe fatigue, irritability, poor concentration, and forgetfulness, significantly affecting her work performance and interpersonal relationships.
- Associated symptoms: heaviness in the head, occasional headaches, and a feeling of being unrefreshed even after what little sleep she obtained.

The patient had consulted multiple allopathic physicians and was prescribed zolpidem, which she took intermittently. She expressed concern about dependency and side effects, seeking an alternative approach.

Clinical Findings

- *Prakriti* (Constitution): *Vata-Pitta*
- *Vikriti* (Current imbalance): *Vata-Pitta*, with Vata predominance.
- *Sara* (Tissue excellence): *Madhyama* (moderate)
- *Samhanana* (Compactness): *Madhyama*
- *Satmya* (Homologation): *Madhyama*
- *Satva* (Mental strength): *Avara* (low) — patient reported high stress and anxiety.
- *Ahara Shakti* (Digestive capacity): *Madhyama*, occasional *Ajirna* (indigestion).
- *Vyayama Shakti* (Exercise capacity): *Avara* (low) — sedentary lifestyle.

Roga Pariksha (Disease examination) revealed symptoms consistent with *Anidra*:

- *Pravritti* (Sleep initiation): Severe difficulty (≥ 90 minutes).
- *Sthiti* (Maintenance): Fragmented sleep.
- *Purvarupa* (Premonitory symptoms): *Jrimbha* (yawning), *Angamarda* (body ache).

- *Rupa* (Main symptoms): *Nidranasha*, *Shirogourav* (head heaviness), *Manodourbalya* (mental weakness).
- *Upadrava* (Complications): Irritability, impaired concentration.

ASSESSMENT TOOLS

1. Pittsburgh Sleep Quality Index (PSQI): A self-rated questionnaire assessing sleep quality and disturbances over a one-month interval. A global score >5 indicates poor sleep quality. The patient's baseline score was 17.
2. Insomnia Severity Index (ISI): A brief screening tool of seven items. The patient's baseline score was 22 (severe clinical insomnia).
3. Subjective Symptom Scale: Grading of classical symptoms on a scale of 0–3 (0=absent, 1=mild, 2=moderate, 3=severe) as per Ayurvedic diagnosis.

Baseline Assessments

Parameter	Score
PSQI Global Score	17
ISI Score	22 (Severe)
Sleep Latency	90 minutes
Total Sleep Time	4.5 Hours
Nocturnal Awakenings	3-4/Night
<i>Jrimbha</i> (Yawning)	2
<i>Angamarda</i> (Malaise)	2
<i>Shirogourav</i> (Head Heaviness)	2
<i>Tandra</i> (Drowsiness)	2
<i>Manodourbalya</i> (Lack of concentration)	3
Irritability	3

INTERVENTION

The patient was placed on a 21-day treatment protocol, integrating external and internal Ayurvedic therapies along with lifestyle modification.

External Therapy — *Ksheer Bala Taila Nasya*

- Drug: *Ksheer Bala Taila* (prepared with *Sida cordifolia* and cow's milk).
- Dose: 8 drops in each nostril.
- Time: Evening (around 7:00–8:00 PM), as per the protocol of *Pratimarsha Nasya*.
- Duration: 14 days (followed by maintenance once daily for 7 more days).
- Procedure: The patient was advised to lie down supine with the head tilted backwards. *Ksheer Bala Taila* was instilled into both nostrils sequentially. Gentle inhalation was

advised, followed by a few minutes of rest. No food or water was taken for 30 minutes before and after the procedure.

Ksheer Bala Taila, with its *Snigdha*, *Guru*, and *Vatahara* properties, is specifically indicated for *Vata* disorders. Administered via the nasal route (*Nasya*), it acts on *Shringataka Marma* and the *Shira* (head), directly pacifying the aggravated *Vata* that is obstructing the natural sleep process. The evening administration aligns with the natural increase of *Kapha* and *Tamas* at night, supporting the transition to sleep.

Internal Medication — *Brahmi Vati*

- Drug: *Brahmi Vati* (composition: *Brahmi* / *Bacopa monnieri*, *Vacha* / *Acorus calamus*, *Shankhapushpi* / *Convolvulus pluricaulis*, *Guduchi* / *Tinospora cordifolia*, *Jatamansi* / *Nardostachys jatamansi*, etc.).
- Dose: 500 mg (2 tablets of 250 mg each).
- *Kala* (Time): Twice daily after meals (morning and evening).
- *Anupana* (Vehicle): Luke-warm water.
- Duration: 21 days.

Brahmi Vati functions as a *Medhya Rasayana*, promoting cognitive function and mental tranquility. Its components have documented anxiolytic, sedative, and neuroprotective properties, working to balance *Pitta* and *Vata* in the *Manovaha Srotas* and enhance the availability of sleep-promoting neurotransmitters like serotonin and GABA.

Satvavajaya Chikitsa* (Mind Therapy) and *Nidana Parivarjana

Nidana Parivarjana

- Avoid caffeine and stimulants after 4:00 PM.
- Stop using electronic devices (mobile phones, laptops) at least 2 hours before sleep.
- Maintain a regular sleep-wake schedule.
- Practice mild evening yoga (*Yoga Nidra*).

Satvavajaya Chikitsa

The patient was guided in *Pranayama* (*Nadi Shodhana*) and *Omkar* chanting (3 rounds of 7 chants) before bedtime, to calm the mind and reduce stress.

RESULTS

The patient was assessed at baseline, at day 15, and at day 30 (follow-up).

Objective Parameters (PSQI & ISI)

Parameter	Baseline	Day 15 th	Day 30 th	Improvement (%)
PSQI Global Score	17	10	6	64.7
ISI Score	22	13	8	63.6
Sleep Latency	90 Min.	35 Min.	20 Min.	77.8 Reduction
Total Sleep Time	4.5 Hours	6 Hours	7 Hours	+55.6
Nocturnal Awakenings	3-4	1-2	0-1	Significantly reduced

Subjective Ayurvedic Symptoms (Scale 0–3)

Symptom	Baseline	Day 15 th	Day 30 th
<i>Jrimbha</i> (Yawning)	2	1	0
<i>Angamarda</i> (Malaise)	2	1	0
<i>Shirogourav</i> (Head Heaviness)	2	1	0
<i>Tandra</i> (Drowsiness)	2	1	0
<i>Manodourbalya</i> (Lack of concentration)	3	2	1
Irritability	3	1	0

Global Assessment

The patient reported a significant improvement in her quality of life by Day 30. She felt refreshed upon waking, her work productivity improved, and her interpersonal relationships showed marked enhancement. She successfully discontinued the use of zolpidem by day 14 of the treatment.

Improvement in PSQI Components (Day 30 vs Baseline)

PSQI Component	Baseline	Day 30 th
C1: Subjective Sleep Quality	3 (Very bad)	1 (Fairly good)
C2: Sleep Latency	3	1
C3: Sleep Duration	3 (<5 hrs)	1 (6–7 hrs)
C4: Sleep Efficiency	3	2
C5: Sleep Disturbances	3	1
C6: Use of Sleep Medication	3 (≥ 3 times/week)	0 (None)
C7: Daytime Dysfunction	3	1
Global Score	17	6

DISCUSSION

The integrated approach of *Ksheer Bala Taila Nasya* and *Brahmi Vati* in this case demonstrated a profound and holistic effect in managing *Anidra*, addressing both the *Dosha* pathology and the psychological components of the disorder.

The primary pathology of *Anidra* is rooted in aggravated *Vata Dosha*, which prevents the mind (*Mana*) from withdrawing from the sensory organs (*Indriyas*)—a necessary condition for sleep to ensue.^[8] *Nasya Karma* with *Ksheer Bala Taila* is a direct and potent intervention against this pathology. The therapeutic action of *Nasya* in *Anidra* can be understood through both classical Ayurvedic and modern scientific perspectives

Classical Ayurvedic Perspective: The nose is considered the portal to the head (*Nasa hi shiraso dwaram*). *Nasya* administers the drug to the *Murdha* (head), where it acts on the *Shringataka Marma*. This *Marma* is a vital junction connecting the channels of the nose, eyes, ears, and throat, and is intimately linked with the central nervous system. The instillation of the medicated oil pacifies *Vata*, clears the *Srotas* (channels) of the head, and nourishes the *Majja Dhatu* (nervous tissue). Acharya Sushruta advocated *Pratimarsha Nasya* specifically for its ability to confer *Sukhanidraprabhodanam* (comfortable sleep and easy awakening). In this case, the evening administration aligned with the natural tendency of *Kapha* and *Tamas* to increase, facilitating the transition into sleep.

Modern Scientific Interpretation: The nasal cavity has a rich vascular network and direct anatomical connections to the central nervous system via the olfactory nerve. This allows for the rapid absorption of lipid-soluble active principles from the *Taila* (oil), bypassing the blood-brain barrier to some extent. *Ksheer Bala Taila*, containing *Bala* (*Sida cordifolia*) with its *Vatahara* and nervine properties, may exert a calming effect on the central nervous system, modulating neurotransmitter activity and promoting parasympathetic dominance conducive to sleep. The *Snigdha* (unctuous) and *Guru* (heavy) properties of the oil also provide nourishment to the *Majja Dhatu* (nervous tissue), potentially repairing stress-induced neural damage and improving sleep architecture.

The oral administration of *Brahmi Vati* worked synergistically to consolidate the effects of *Nasya*. The formulation's key ingredient, *Brahmi* (*Bacopa monnieri*), is a well-established *Medhya Rasayana* with scientific evidence supporting its neuroprotective, cognitive-enhancing, and sleep-promoting properties. It is believed to increase serotonin levels in the

brain, which is crucial for sleep regulation. Additionally, the presence of *Jatamansi* and *Vacha* enhances the formulation's sedative and anxiolytic effects, addressing the *Manasika* (psychological) component of insomnia. Modern research has shown that *Brahmi* modulates the synthesis and release of melatonin and other sleep-regulating neurotransmitters, thereby improving sleep quality, reducing sleep latency, and minimizing nocturnal awakenings.

The significant improvement in PSQI components—particularly in subjective sleep quality (C1: 3 to 1), sleep duration (C3: 3 to 1), and daytime dysfunction (C7: 3 to 1)—underscores the holistic impact of this therapy. Most notably, the patient's use of sleep medication (C6) dropped from a score of 3 (three or more times a week) to 0 (none), indicating a successful withdrawal from habit-forming hypnotics.

The lifestyle and psychological support component—*Nidana Parivarjana* and *Satvavajaya Chikitsa*—cannot be overstated. By counseling the patient to avoid late-night mobile use, regulate her sleep timings, and practice stress-reducing techniques like *Pranayama* and *Omkar* chanting, the treatment addressed the contemporary *Hetu* (causative factors) responsible for *Vata* aggravation and *Rajas* (mental hyperactivity). This is in line with classical Ayurvedic teaching that emphasizes the removal of causative factors as the first step in treatment.^[9] The practice of *Omkar* chanting, in particular, has been shown to decalcify the pineal gland and enhance melatonin secretion, which is critical for regulating the sleep-wake cycle.

This case underscores the importance of a multi-pronged Ayurvedic approach. The combined effect of *Nasya* to locally pacify *Vata* in the head channels, *Brahmi Vati* to provide systemic nourishment and calming of the mind, and lifestyle modifications to eliminate external causative factors, proved to be a powerful strategy in managing a complex and debilitating condition like *Anidra*.

CONCLUSION

This case study illustrates the successful management of primary insomnia (*Anidra*) in a 45-year-old female using an integrated Ayurvedic protocol of *Ksheer Bala Taila Nasya* and *Brahmi Vati* over 21 days. The intervention resulted in significant improvements in both objective sleep parameters (as measured by PSQI and ISI) and subjective Ayurvedic symptoms, with a notable reduction in sleep latency, increase in total sleep duration, and

complete resolution of daytime dysfunction. The patient was successfully weaned off habit-forming allopathic sedatives.

The therapeutic efficacy of this combination can be attributed to the synergistic action of *Nasya*—delivering *Vatahara* and nervine-active substances directly to the brain—and the oral administration of a classical *Medhya Rasayana* that promotes cognitive function and mental tranquility. Furthermore, the integration of *Satvavajaya Chikitsa* and *Nidana Parivarjana* reinforces the holistic, patient-centered approach of Ayurveda, addressing the root cause of the disease in addition to its symptoms.

This case contributes to the growing body of evidence supporting the use of Ayurvedic therapies as safe, effective, and sustainable alternatives to modern pharmacological treatments for insomnia. It reinforces the principles elucidated in the classical texts of Charaka, Sushruta, and Vagbhata, demonstrating their enduring relevance in the management of contemporary lifestyle disorders. Further research, including larger randomized controlled trials, is warranted to validate these findings and establish standardized protocols for Anidra management in integrative healthcare settings.

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