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A Physiological Comparative Study of *Śirobhyanga* and *Pādābhyanga* in Management of *Nidrānaśa* (Primary Insomnia) w.s.r. to *Deha Prakṛti*

Author: Yamini kumari Jain[1]
Co Authors: Kishori Lal Sharma[2]

[1,2]PG Department of Kriya Sharir, M.M.M. Govt. College Udaipur (Raj.), India

ABSTRACT

BACKGROUND: *Nidrānaśa* (primary insomnia) is a common sleep disorder that adversely affects physiological balance and mental health. In *Ayurveda*, sleep (*Nidrā*) is considered a vital pillar of health. Disturbance in *Nidrā* leads to impairment of bodily and psychological functions. *Śirobhyanga* (head oil massage) and *Pādābhyanga* (foot oil massage) are classical *Ayurvedic* therapies known to influence the regulation of sleep by pacifying *Vāta Doṣa*, with therapeutic outcomes varying according to individual *Deha Prakṛti*.

OBJECTIVES:

1. To study the *Ayurvedic* concept of *Prākṛta Nidrā* and *Nidrānaśa*.
2. To evaluate the individual and combined effects of *Śirobhyanga* and *Pādābhyanga* in the management of *Nidrānaśa*.
3. To compare the efficacy of *Śirobhyanga* and *Pādābhyanga*.

METHODS: A comparative clinical study was conducted on 300 subjects of *Nidrānaśa* aged 18–50 years, selected through simple random sampling from different regions of Rajasthan. Subjects were divided into three groups (A, B, and C), each comprising 100 participants. Group A received *Śirobhyanga*, Group B received *Pādābhyanga*, and Group C received combined therapy using *Tila Taila*. Assessment was done using the Pittsburgh Sleep Quality Index (PSQI) and CCRAS-based *Prakṛti* questionnaire.

RESULTS: Group C demonstrated the highest improvement across all sleep parameters, indicating superior overall efficacy. Group A showed better improvement in sleep disturbance and reduction in the use of sleep medication, whereas Group B showed the least improvement among the three groups.

CONCLUSION: The study revealed that *Nidrānaśa* was more prevalent in the 41–50 years age group, commonly observed among housewives, urban residents, individuals of *Hindu* religion, and those with *Madhyama Koṣṭha*. Both *Śirobhyanga* and *Pādābhyanga* were effective in managing *Nidrānaśa*, with combined therapy showing highly significant results.

Key Words *Nidrānaśa, Insomnia, Śirobhyanga, Pādābhyanga, Ayurveda, Sleep Disorders, Prakṛti*

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INTRODUCTION

Āyurveda emphasizes the maintenance of health and treatment of disease, with *Nidra* recognized as one of the three essential pillars of life[1]. Adequate sleep sustains life, strength, happiness, health, vitality, and wisdom; deprivation causes decline[2]. Proper sleep maintains physical, mental,

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and sensory balance, while disturbed sleep leads to discomfort and disease. Adequate sleep promotes healthy weight, glowing skin, motivation, alert senses, and balance[3].In modern lifestyles, stress, irregular work patterns, and psychological factors have increased the prevalence of insomnia. Primary insomnia, known in *Āyurveda* as *Nidrānaśa*, occurs without underlying medical illness and is mainly stress induced. Though modern hypnotics provide temporary relief, their adverse effects limit long-term use. Hence, *Āyurvedic* therapies offer safer, holistic management of *Nidrānaśa*. *Abhyanga*, a *Vatashamana* practice of *Dinacharya*, promotes sound sleep and relieves physical and mental stress. *Śirobhyanga* and *Pādābhyanga* with Tila taila effectively manage *Nidrānaśa* by pacifying *Vāta* through its *Snigdha*, *Madhura* and Uṣṇa properties.

Aims and objectives: 1. To Study the concept of "*Prākṛt* ,*Nidrā* and "*Nidrānaśa* ".

2.To study the Individual and combined effect of both *Śirobhyanga* and *Pādābhyaga* in management of *Nidrānaśa*.

3.To study the comparative efficiency of *Śirobhyanga* and *Pādābhyaga*.

MATERIALS & METHODS

A comparative clinical study was conducted on 300 subjects of *Nidrānaśa* aged 18–50 years, selected through simple random sampling from different regions of Rajasthan. Subjects were divided into three groups (A, B, and C), each comprising 100 participants. Group A received *Śirobhyanga*, Group B received *Pādābhyanga*, and Group C received combined therapy using *Tila Taila*. Assessment was done using the Pittsburgh Sleep Quality Index (PSQI) and CCRAS-based *Prakṛti* questionnaire.

Hypothesis- H_0- There is no effect of *Śirobhyanga* and *Pādābhyaga* or combined effect of *Śirobhyanga* and *Pādābhyaga* in the management of *Nidrānaśa* in *Deha Prākṛti*.

H_1- There is effect of *Śirobhyanga* and *Pādābhyaga* or combined effect of *Śirobhyanga* and *Pādābhyaga* in the management of *Nidrānaśa* in *Deha Prākṛti*.

Need of study- Primary insomnia affects over 5% of the population and many professionals, causing cognitive impairment and poor concentration. Modern hypnotics have adverse effects, limiting long-term use. In *Āyurveda*, *Abhyanga* is described as *Nidrajanaka*, promoting sound sleep and maintaining health as a daily *Dinacharya* practice.

Source of Study: • Location: Urban and *Rural* areas of Udaipur, *Dungarpur* Rajasthan. Sample Size: 300 participants. • Study Duration: 3 months.

Out of 300 participants including only *Nidrānaśa*, males & female aged between 18 – 50 year will be selected for study.

- PSQI scale for the assessment of primary insomnia.

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- A questionnaire for determining the dominant "*Prakṛti*" of the participants will be designed based on description given in CCRAS.
- Demonstration of *Śirobhyanga* and *Pādābhyaga* procedure will be given to all patients
- *Til Taila* will be common in both the group.
- This study will be carried out for 3 month
- GROUP A-100 *Śirobhyanga* with *Tila Taila* (5- 10 ml. at bed time)
- GROUP B-100 *Pādābhyaga* with *Tila Taila* (5- 10 ml. at bed time)
- GROUP C-100 *Śirobhyanga* and *Pādābhyaga* both with *Tila Taila.*
- Follow up will be taken on 0day, 1 month, 2 month and 3 month of starting.
- Drop out patients will exclude out from the study

INCLUSION CRITERIA

- Age group - 18 to 50 years.
- Female & male suffering from *Nidrānaśa*
- Patients with global PSQI score greater than 5.

EXCLUSION CRITERIA

- Age group <18 year and > 50 years.
- Subject with history of mental disorder
- Subject with history of any chronic disease
- Patients *Ayogya* of *Abhyanga*
- Patients on sleeping pills
- Patients with global PSIQ score less than 5

PLAN OF STUDY

300 volunteers of *Nidrānaśa* will be selected as per inclusion & exclusion criteria

⬇

Assessment of *Prākṛti* using CCRAS Performa

Assessment of primary insomnia using PSQI scale

⬇

Demonstration of *Śirobhyanga* and *Pādābhyanga*

⬇

Observational data will be collected and correlated

⬇

Statistical analysis of data

⬇

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Result will be interpreted

Figure 1 Study Design

OBSERVATION

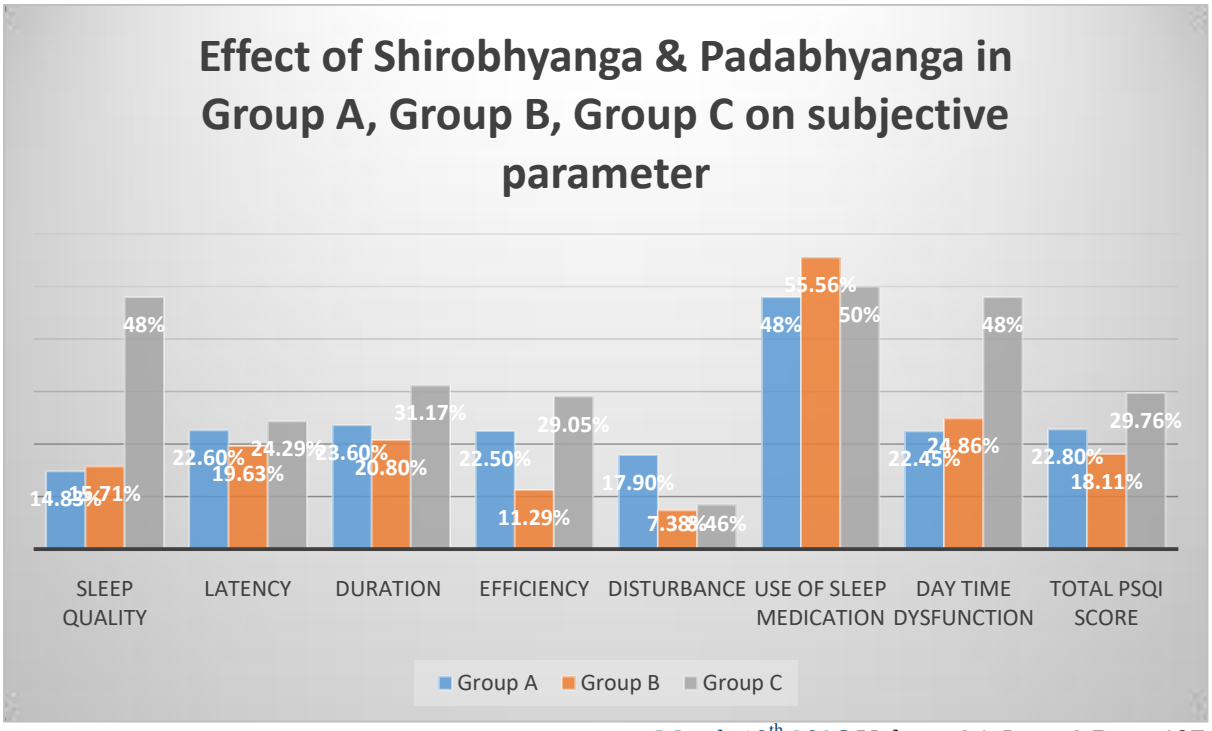
Nidranāśa (insomnia) is a common sleep disorder characterized by difficulty in initiating or maintaining sleep, leading to impaired daytime functioning. *Ayurveda* attributes *Nidranāśa* mainly to vitiation of *Vāta* and *Pitta Doṣa*, with individual susceptibility influenced by *Deha Prakṛti*. The present study was designed to comparatively evaluate the physiological effects of two classical *Ayurvedic* therapies—*Śirobhyanga* (head massage) and *Pādābhyanga* (foot massage)—in patients with primary insomnia, considering their constitutional makeup.

A total of 300 subjects diagnosed with *Nidranāśa* were included. Most participants belonged to dual *Prakṛti* types, predominantly *Vata-Pitta* (50%) and *Vata-Kapha* (30%), suggesting greater vulnerability of these constitutions to insomnia. Psychological assessment revealed anxiety as the most common contributing factor, followed by phobia and depression, indicating dominance of *Rājasika* and *Tāmasika Manasika Prakṛti*. Lifestyle and physiological parameters such as appetite, bowel habits, micturition, *Kostha*, and addictions were largely within functional limits, with tea consumption being highly prevalent.

RESULTS

Group C demonstrated the highest improvement in most parameters — particularly sleep quality, efficiency, daytime dysfunction, and total PSQI score.

- Group A performed best in reducing sleep disturbance and use of sleep medication.
- Group B consistently showed least improvement across most variables.



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Graph 1

VARIABLES	GROUP	MEAN		MEAN DIFF.	% RELIEF	P VALUE	SIG
1.Sleep		B. A	A. A				

Table 1 Effect of *Shirobhyanga* & *Padabhyanga* in Group A, Group B, Group C on subjective parameter

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Quality	A	2.09	1.78	.31	14.83%	<.001	S
	B	1.910	1.610	.300	15.71%	<.001	S
Variables	Group	Diff. of Mean	S. D ±	S. E ±	% value	P value	SIG
2. Sleep Latency	A	2.1	1.640	.480	22.6%	<.001	S
	B	2.14	1.72	.42	19.63%	<.001	S
1.Sleep Quality	A	0.350	0.557	0.0557	38.491	<.001	S
	B	2.300	0.482	0.0482	24.29%	<.001	S
	C	2.1	1.59	.510			
3. Sleep Duration	A	2.50	1.91	.59	23.6%	<.001	S
	B	2.26	1.76	.47	20.80%	<.001	S
	C	2.310	1.59	.72	31.17%	<.001	S
4. Sleep Efficiency	A	1.87	1.45	.42	22.5%	<.001	S
	B	1.24	1.10	.14	11.29%	.002	S
	C	1.79	1.270	.520	29.05%	<.001	S
5. Sleep Disturbance	A	1.560	1.280	.280	17.9%	<.001	S
	B	1.22	1.13	.09	7.38%	.004	S
	C	1.300	1.190	.110	8.46%	<.001	S
6.Use of Sleep medication	A	.470	.240	.230	48%	<.001	S
	B	0.9	.04	.05	55.56%	0.125	NS
	C	.198	.099	.099	50%	0.031	S
7.Day time dysfunction	A	1.87	1.45	0.42	22.45%	<.001	S
	B	1.85	1.39	0.46	24.86%	<.001	S
	C	2.5	1.3	1.2	48%	0.007	HS
8.Total psqi Score	A	12.77	9.8	2.9	22.8%	<.001	S
	B	10.71	8.77	1.94	18.11%	<.001	S
	C	12.50	8.78	3.72	29.76%	<.001	S

INTERGROUP COMPARISON-

Table 2 Inter Group Comparison B/W Group A, B, C, on subjective parameter (Using ANOVA TEST, & Turkey's Test)

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	C	0.900	0.823	0.0823			
2. Sleep Latency	A	0.480	0.659	0.0659	2.517	0.284	**S**
	B	0.420	0.496	0.0496			
	C	0.590	0.683	0.0683			
3. Sleep Duration	A	0.590	0.683	0.0683	6.162	0.046	**NS**
	B	0.470	0.717	0.0717			
	C	0.720	0.792	0.0792			
4. Sleep Efficiency	A	0.440	0.845	0.0845	22.866	<0.001	**S**
	B	0.140	0.450	0.0450			
	C	0.520	0.689	0.0689			
5. Sleep Disturbance	A	0.280	0.494	0.0494	13.56	0.001	**S**
	B	0.090	0.288	0.0288			
	C	0.110	0.314	0.0314			
6.Use of Sleep medication	A	0.230	0.489	0.0489	20.33	<0.001	**S**
	B	0.0400	0.243	0.0243			
	C	0.0500	0.219	0.0219			
7.Day time dysfunction	A	0.460	0.610	0.0610	13.028	0.001	**S**
	B	0.460	0.702	0.0702			
	C	0.720	0.653	0.0653			
8.Total psqi Score	A	2.91	3.159	0.316	13.897	<0.001	**S**
	B	1.940	2.449	0.245			
	C	3.720	3.291	0.329			

Table 3 Description of observation

Variable	Highest Mean Improvement	Statistical Significance (H & P value)	Observation
1.Sleep Quality	Group-C (0.900)	H = 38.491, P < 0.001 (S)	Group C showed the greatest improvement in sleep quality, followed by A, then B. The difference among groups is statistically significant.
2. Sleep Latency	Group-C (0.590)	H = 2.517, P = 0.284 (NS)	Though Group C showed slightly higher improvement, the difference among groups is not significant.
3. Sleep Duration	Group-C (0.720)	H = 6.162, P = 0.046 (NS)	Group C had better sleep duration, but the difference among groups is not statistically significant.
4. Sleep Efficiency	Group C (0.520)	H = 22.866, P < 0.001 (S)	Group C showed maximum improvement in sleep efficiency, followed by A, then B. The difference is highly significant.
5. Sleep Disturbance	Group A (0.280)	H = 13.56, P = 0.001 (S)	Group A showed more reduction in sleep disturbance compared to B and C. The difference is statistically significant.
6.Use of Sleep medication	Group A (0.230)	H = 20.33, P < 0.001 (S)	Group A showed the greatest improvement (reduced need for sleep medication). The difference among groups is significant.
7.Day time dysfunction	Group C (0.720)	H = 13.028, P = 0.001 (S)	Group C showed better reduction in daytime dysfunction compared to A and B, with a significant difference.
8.Total psqi Score	Group C (3.720)	H = 13.897, P < 0.001 (S)	Group C showed the highest overall improvement in total sleep quality score; difference among groups is highly significant.

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- The results of the study are given in Table 1 & Table 2.
- Description of observation is given in Table 3.

DISCUSSION

- Overall conclusion, **Group C** showed the **most effective improvement in sleep parameters**, suggesting the intervention used in this group had the **best impact on overall sleep quality** compared to Groups A and B.
- Differences were statistically significant ($P < 0.05$) for six out of eight variables (except sleep latency and duration)

Discussion on effect of (*Tila Taila* head and foot massage) in management of *Nidrānāśa:*

Tila Taila (sesame oil) is highly valued in Ayurveda for its *Vāta-śāmaka* (Vāta-pacifying) and *Snigdha* properties, making it effective in managing *Nidrānāśa* (insomnia). Its deep penetrating and warming nature nourishes the *Dhātus*, calms the nervous system, and promotes relaxation. When used in *Śirobhyanga* or *Pādābhyanga*, *Til Taila* enhances blood circulation, relieves stress, and soothes the mind, thereby improving sleep quality. Its antioxidant and neuroprotective actions help stabilize *Manovaha Srotas*, balancing *Vāta* and *Pitta Doṣas*. Regular external application of *Tila Taila* thus supports sound, natural sleep and overall mental and physical well-being.

CONCLUSION

300 subjects of nidranash (insomnia) were included in this study, Out of the 300 subjects of nidranash (insomnia) included in this study, 100 subjects were treated with Shirobhyanga group A, and 100 subjects were treated with padabhyanga in group B, and 100 subjects were treated with both Shirobhyanga & padabhyanga in group C.In the this study it was observed that nidranash (insomnia) is common in the age group of 41-50 years. Occupation wise it is more common in housewife, urban, hindu religion and in Madhya kostha.In the results in group C was highly significant, Group -A showed better response, while group B showed significant.

Sleep parameters were assessed using the Pittsburgh Sleep Quality Index (PSQI). Śirobhyanga showed the maximum improvement, with 29.76% overall PSQI relief and marked enhancement in sleep quality, duration, efficiency, and daytime functioning, along with reduced medication dependence. Pādābhyanga also produced significant improvement, though to a lesser extent. The study concludes that both therapies are effective, holistic, non-pharmacological interventions for Nidranāśa, with Śirobhyanga demonstrating superior efficacy.

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REFERENCES

1. 1. Acharya Vidyadhar Shukla & Ravidatta Tripathi, Charak Samhita Volume 1, Reprint Ed, Choukhambha Sanskrit Pratisthan, 2017; PP:171.
2. Acharya Vidyadhar Shukla & Ravidatta Tripathi, Charak Samhita Volume 1, Reprint Ed, Choukhambha Sanskrit Pratisthan, 2017; PP:305.
3. Acharya Vidyadhar Shukla & Ravidatta Tripathi, Charak Samhita Volume 1, Reprint Ed, Choukhambha Sanskrit Pratisthan, 2017; PP:304

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