THE EFFICACY OF *HIMASAGAR TAILA SHIRODHARA* IN INSOMNIA

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Abstract:

Background: In Ayurveda, *Nidra* (sleep) is one important component of *Trayopsthambh*. A sound sleep in the night regenerates the power of the mind and body to accept new challenges, maintains health, proficiency and emotional well-being. The reported prevalence of insomnia is 9% in the general population and about 30% suffer from occasional insomnia. The aim of the present study is to evaluate the efficacy of *Himasagar Taila Shirodhara* in various parameters of *Anidra*.

Material and method: In this study, 15 patients were registered after taking consent from them. Each patient was analyzed for *Dosha* and *Dushya. Himsagar Taila Shirodhara* was administered 30 minutes daily for 7 days. Insomnia Sensitive Index (ISI) was used for assessing the results.

Result: Clinically significant result was seen in parameters of Severity of sleep onset, Sleep maintenance, early morning awakening problems, sleep dissatisfaction, interference of sleep difficulties with daytime functioning, noticeability of sleep problems by others, distress caused by the sleep difficulties. **Conclusion:** *Shirodhara* procedure with *Himasagar Taila* is helpful in management of *Anidra.*

Keywords: *Anidra, Himsagar taila,* Insmonia, *Shirodhara.*

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Introduction

Ayurveda, the science of life, suggested many Siddhantas (principles), which, one has to obey to maintain healthy life. One of the most important principle is *Trayopstambha* i.e. *Aahar* (diet), *Nidra*(sleep) and *Brahmacharya* (celibacy) executes an important role in maintaining the health[1]. *Aahara* (Diet) is the first which directly affects the life by causing various problems with health & mind. Changes in diet habit, changes in the timing of diet etc. may cause problems related with digestive tract. *Bramhacharya* (Celibacy) is a pillar which also affects on the healthy status of the body. It means controlled sex, if done at proper age and at proper time it preserves the body or it is harmful if done in a wrong or non-scientific way. *Nidra* (Sleep) also has its important role in healthy life. By getting a good & sufficient sleep one can get ready for new work. A sound sleep in the night regenerates the power of the mind and body to accept new challenges, maintains health, proficiency and emotional well-being.[2] In daily routine a person can't concentrate on sufficient and in time sleep, so he is suffering from many problems related with mind & body. Researches show that improper sleep can increase risk of developing obesity, diabetes, high blood pressure or heart disease.[3] A survey conducted by WHO in India revels that about 35 percent of respondents have reported mild to extreme difficulty associated with sleep[4]. Ayurveda has enlightened about this fact centuries ago and mentioned various causes, symptoms and remedies for *Nidranaasha* (insomnia). By observing this one can get rid of the problems arising from the loss of sleep.

Sleep is naturally recurring state characterized by reduced or absent consciousness. According to Ayurveda, *Nidra* (sleep) arises when person gets rid of his duties & his mind get tired due to heavy work. Insomnia is the perception or complaint of inadequate or poor quality of sleep because of difficulty in falling asleep, difficulty in maintaining sleep or waking too early in the morning. Chronic Insomnia can lead to severe fatigue, anxiety, depression and lack of concentration. Insomnia can be classified in terms of its duration. It comes under *Vata nanatmaja vikara* and called *Anidra* or *Nidranasha* in Ayurvedic terminology.

In Ayurveda, *Nidra* (sleep) is one important component of *Trayopsthambha.* Ayurveda is medical sciences which describes physical mental and spiritual health mental health is well being of a person. As per Ayurveda, *Nidranasha* is due to aggravation of *Vata Dosha (Vata Vrudhi)*. Nowadays modern medicine doctors prescribe different types of transquillizers for treatment of insomnia. In initial days of treatment these medication gives considerable relief but continuous and long term use of these medicine results into adverse effects. Thus, the medical science is still lacking definite treatment for insomnia. It frequently prescribes sedative and hypnotic like benzodiazepines drugs as a therapy of insomnia.

Need of study

The study found SRDs showed that nearly one-fifth of an apparently healthy, productive age group of the Indian population is suffering from insomnia. The reported prevalence of insomnia is 9% in the general population and about 30% suffer from occasional insomnia.

In Modern medicine sedative and tranquilizer drugs are used to induce sleep in insomnia but it cannot be used for a long time as it leads to dependence[5] . In such a scenario there is need for the efficient management of insomnia in a natural way. Ayurveda treats *Anidra* by both *Abhyantara* and *Bahya chikitsa. Shirodhara* is one of the effective therapy advised in classics for the management of insomnia.

Aims and Objectives:

To Assess and evaluate the efficacy of *Himasagar Taila Shirodhara* in various parameters of *Anidra*.

Material : The drug used in the study was *Himsagar Taila* of Kotakkal pharmacy. Patients fulfilling the diagnostic criteria of *Anidra* (primary insomnia) were randomly selected and registered from the OPD and IPD of Punarvasu Chikitsalaya, Pune. *Dosha* and *Dushya* assessment was done in all the patients. The study was carried out after obtaining the prior consent from the patient for undertaking the study.

Methodology: It was a single arm open labeled study conducted in the IPD of Punarvasu Chikitsalaya, Pune. When the patient arrived at the hospital, they were advised to lie down in comfortable position. A continuous dripping of *Himasagar* oil was then initiated and maintained for 30 min; the locus of the drip was the recommended spot, between the eyebrows, on the forehead. The rate of the drip was assured with a peristaltic pump at the outlet of the oil reservoir. The temperature of *Shirodhara* oil was kept at 40 ± 1.5°C with a thermostatic control. The eyes were covered with soft and sterile gauze pieces. The subjects stayed supine throughout the study. The patients were not restrained from sleeping. But, they reported that they felt a relaxed state of alert awareness and occasionally mild drowsiness. Quantity of *Himsagar taila* before and after treatment was measured. The procedure was repeated for 7 days. Adverse events, if any, were recorded during the procedure, after the procedure, and on the third day. Insomnia severity index (ISI) [6] was used to assess the result of the study. The scale used is as below:

Dimensions	No(0)	Mild (1)	Moderate (2)	Severe (3)	Very severe(4)
Severity of sleep onset					
Sleep maintenance					
Early morning awakening problems					
Sleep dissatisfaction					

Interference of sleep difficulties with daytime functioning					
Noticeability of sleep problems by others					
Distress caused by the sleep difficulties					

Interpretation : A score of 0-7 shows absence of insomnia, 8-14 shows sub-threshold insomnia, 15-21 shows moderate insomnia, 22-28 shows severe insomnia.

Inclusion Criteria

✓ Individuals between the age group of 20 to 70 years of either sex of insomnia of minimum one month duration.

✓ Patients of insomnia with mild hypertension and anxiety disorders.

Exclusion Criteria

✓ Patients who are known case of major psychiatric illness like schizophrenia, depressive psychosis, epilepsy.

✓ Known case of Chronic alcoholics.

✓ Patients known case of asthma, malignancies, liver cirrhosis, chronic renal failure.

✓ Patients known case of Cardio Vascular Accident, Congestive Cardiac Failure, Chronic Obstructive Pulmonary Disorders

Observations:

Out of the total patients enrolled in the study. 53.33% patients were male and 46.67% patients were female. While assessing the *Vikrut Dosha* in the patients, 60% patients had dominance of *Vata-Pitta Dosha* while 40% patients had dominance of *Vata Dosha.*

Dushya assessment shows that 80% patients had *Rasa Dushti,* 66.67% patients had *Rakta Dushti*, 53.33% patients had *Majja Dushti,* 40% patients had *Asthi dushti*, 26.67 % patients had *Shukra dushti,* 13.33% patients had *mansa dushti,* 6.67% had *Meda dushti, Purish dushti* and *oja* involved.

66.67% patients had complaints of disturbed sleep while 33.33% of patients had complaints of sleeplessness.

On assessing the patients on insomnia severity index, all the patients had moderate insomnia i.e. score between 15-21.

Result

Total 15 patients were enrolled in the study. All the patients had ISI score between 15-21.

Effect of therapy on Severity of sleep onset – Before treatment 53.33% patients(8) had a score of 3, 33.33% patients(5) had a score of 2 , 13.33% patients(2) had a score of 4. After treatment, 73.33% patients (11) had a score of 1, 26.67% patients(4) had a score of 2.

Effect of therapy on Sleep maintenance - Before treatment 86.67% patients(13) had a score of 3, 6.67% patients(1) had a score of 2 and 4 each. After treatment, 66.67% patients (10) had a score of 1, 33.33% patients(5) had a score of 2.

Effect of therapy on early morning awakening problems- Before treatment 40% patients(6) had a score of 3, 60% patients(11) had a score of 2. After treatment, 93.33% patients (14) had a score of 1, 6.67% patients(1) had a score of 2.

Effect of therapy on sleep dissatisfaction - Before treatment 80% patients (12) had a score of 3, 20% patients(3) had a score of 2. After treatment, 100% patients (15) had a score of 1.

Effect of therapy on interference of sleep difficulties with daytime functioning- Before treatment 80% patients (12) had a score of 2, 20% patients(3) had a score of 3. After treatment, 86.67% patients (14) had a score of 1, 13.33% patients(2) had a score of 2.

Effect of therapy on noticeability of sleep problems by others- Before treatment 100% patients (15) had a score of 2. After treatment, 100% patients (15) had a score of 1.

Effect of therapy on distress caused by the sleep difficulties - Before treatment, 60% patients (9) had a score of 1, 40% patients(6) had a score of 2.

After administration of Shirodhara with Himsagar tail for 7 days, the total ISI score of all the patients came in the range of 8-14 i.e. in the range of subthreshold insomnia.

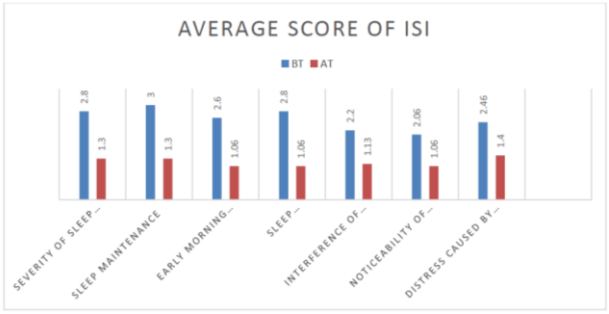
The result is analysed by using Wilcozon matched pair test. The result is as shown in the table below.

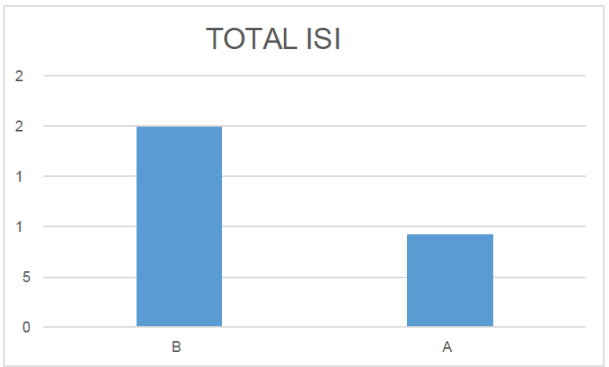
Statistically highly significant result is obtained in all the parameters of Insomnia severity index. The result is represented in the graph below.

Table1: ISI score assessment (Wilcoxon matched pair test, n=15)

Parameter	BT	AT	Mean Difference	%relief	SD	SE	P	S
SeverityOf Sleep Onset	2.8	1.3	1.46	52.14%	0.63	0.13	<0.001	HS
Sleep Maintenance	3.0	1.3	1.6	53.33%	0.48	0.12	<0.001	HS
Early Morning Awakening Problems	2.60	1.06	1.53	58.84%	0.51	0.13	<0.001	HS
Sleep Dissatisfaction	2.8	1.06	1.73	61.78%	0.45	10.11	<0.001	HS
Interference Of Sleep Difficulties With Daytime Functioning	2.2	1.13	1.06	48.18%	0.25	0.06	<0.001	HS
Noticeability Of Sleep Problems By Others	2.06	1.06	1.0	48.54	0.37	0.09	<0.001	HS
Distress Caused By The Sleep Difficulties	2.46	1.40	1.06	43.08%	0.25	0.06	<0.001	HS
Total	19.86	9.2	10.60	53.37%	1.05	0.27	<0.001	HS

Graph1: Graphical representation of the result obtained





Discussion

Anidra or *Nidranasha* is enumerated as one of the *Nanatmaja Vikara* of *Vata Dosha.* It is also included as one of the symptoms in *Vata & Pitta Dosha Vriddhi Lakshanas* and certain diseases. *Kaphadosha, Tamas, Hridaya* and *Samjnavaha Srotasa* are responsible for the induction of sleep. There is relation between the age and duration of sleep. Along with this the influence of the *Tridosha* can also disturb the sleep pattern Increased condition of *Vata Dosa* can cause loss of sleep. Increased condition of *Pitta Dosa* in relation to its *Ushna & Tikshna Guna* (properties) is also responsible for decrease in the sleep. *Kshaya* (weakness or loss of power) can also cause loss of sleep as it is responsible for the deprivation of *Dhatus* from their normal function. This condition may bring the loss of sleep.

Treatment of *Nidranasha* in Ayurveda: - Ayurveda has described treatment protocol of *Nidranasha* in meticulous fashion. It is more or less similar in all classics, considering the involvement of *Doshas*. It directs the rectification of diet, certain procedures in routine with or without single or compound medicine. Ayurveda indicates consumption of flesh of domestic and aquatic animals, meat of buffalo and buffalo milk. Wheat, black gram, milk products like curd, ghee are also responsible to alleviate insomnia[2]. Fruits like grapes, preparations of jaggery and sugar and wine [3]are also indicated in *Nidranasha.* Certain procedures like Bath, oil massage especially on the head, perfumes made from flowers and pleasant music is also helpful to induce sleep[4]. One should keep his/her mind calm

and happy, without worry, painful thoughts and greed. *Abhyanga* (whole body massage) and *Padabhyanga* (foot massage),

Shirodhara (Head massage) are the most useful practices advised in *Nidranasha. Himsagar Taila* is referred in Bhaishajya Ratnavali *Vatvyadhi. Himsagar Taila* has *Guru* and *Snigdha* properties, cold potency. It helps in balancing aggrevated *Vata Pitta Dosha*. Most of the drugs on this oil has *Madhura Rasa, Madhura Vipaka* and *Sheet Virya*. Few aromatic compounds are also a part of this formulation. *Sugandhi Guna* is used for inducing sleep.

Probable mode of action of *Shirodhara: Shirodhara* produces a constant pressure and vibration which is amplified by hollow sinus present in frontal bone. The vibration is then transmitted inwards through the fluid medium of cerebrospinal fluid (CSF). This vibration along with little temperature may activate the functions of thalamus and the basal fore brain which then brings the amount of serotonin and catecholamine to the normal stage. Pressure also has an effect on impulse conduction. If prolonged pressure is applied to a nerve, impulse conduction is interrupted and part of body relaxes. In the procedure of *Shirodhara* prolonged and continuous pressure due to trickling of medicated liquid over forehead causes tranquility of mind and reduces stress by modulating the nerve progression/stimulation.[5] When nerve endings of autonomic nervous system are stimulated, they produce chemical substances like Acetylcholine which exists in the tissues in an inactive form and is activated by a nerve impulse vibration produced due to constant pouring of *Shirodhara* over forehead which may stimulate nerve endings and in turn Acetylcholine may be liberated. Small doses of Acetylcholine cause fall of blood pressure leading to decreased activity of central nervous system resulting in tranquility of mind.[6] It is to be noted that larger doses of Acetylcholine like substances activate central nervous system, thereby resulting in increased activity of body and mind. During the process the patient concentrates on *Dhara Dravya* which is falling on his head, which increases the intensity of a-brain waves and decreases the brain cortisone and adrenaline level. This factor is also contributory in anti-stress effect of *Shirodhara*. Probably *Shirodhara* normalizes the two important neurotransmitters Serotonin and Norepinephrine, which regulates a wide variety of neuropsychological processes along with sleep. *Shirodhara* acts as a sedative and soothing effect for the Brain and produces Sleep. Medicated oil poured on fore-head may be absorbed, producing Tranquilizing effect by reaching the Brain cortex.

Conclusion

Sleep is one of the basic instincts of life. Health and longevity is conquered by proper sleep. Insomnia is gradually threatening health of an individual, personal and social behavior including occupational life. Hence it has been considered as psychosomatic disorder aggravated by vitiated *Vata-Dosha.* Various measures provided in Ayurveda can certainly help to overcome this situation. Avoiding causative factors is a must to tackle the condition more precisely, administration of herbs in single or compound form, and external measure specially procedures like *Shirodhara* are effective in its measurement. Thus, we can conclude that *Shirodhara* is an effective external therapy for insomnia with absolutely no side effects and additional benefits of relieving stress and inducing feeling of wellness.

Conflict of interest – Nil

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