



# International Journal of Indian Medicine

[www.ijim.co.in](http://www.ijim.co.in)

**ISSN: 2582-7634**

**Volume - 4, Issue - 5**

**May 2023**



# IJIM

INDEXED



# International Journal of Indian Medicine

Access the article online



International Category Code (ICC): ICC-1702

International Journal Address (IJA): IJA.ZONE/258276217634

## A Clinical Study in the Management of Nidranasha vis-à-vis Insomnia in the Older Patients by Administration of Shirodhara (a Type of Murdhni Tail) with Bramhi Tail

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### ABSTRACT:

Nidra in Ayurveda is described as one of the primary tripods of life. Nidra (Sleep) is the physiological harmonious feature gifted by nature to the mankind which is an essential phenomenon for maintenance and restoration of both body and mind. Ayurved mentioned functions of Nidra that leads to happiness, fertility, good memory and longevity of life. The importance of sleep is well accepted by modern science also that it is helpful in conservation of energy, restoration of tissues and growth, thermoregulation, regulation of emotions, neural maturation, memory and learning. It runs according to the biological clock mandatory for the well-being of human life's rhythm. Sleep disorders are commonly under diagnosed and are significant source of concern in the geriatric population. Several diverse factors may contribute in sleep disturbances in a large percentage of the elderly population including retirement, health problems and death of spouse/family member, medications used by them. About 1/3rd of world population is suffering from various sleep disorders. Since sleep is directly connected with the mental state. It is generally observed that over the counter use of sedatives, antidepressants, anti-psychotic medications leads to dependency over these medicines and serious side effects are encountered in elderly patients. Therefore, thought was in mind to overcome Nidranasha and further to avoid side effects and dependency of allopathic medicine by administration of Murdhni Tail in the form of Shirodhara mentioned in Ayurved. It has the important function of Tarpan of Prana. It is observed that Tila Tail (Lukewarm) in the form of Shirodhara dilates the vasculature of brain leading to calmness of mind and sound sleep by increasing the perfusion of oxygen to brain tissues.

**KEYWORDS-** *Nidra, Nidranasha, insomnia, Murdhni Tail, Shirodhara*

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**How to cite this article:** Khatri A.G., Mishra K.G. A Clinical Study in the Management of Nidranasha vis-à-vis Insomnia in the Older Patients by Administration of Shirodhara (a Type of Murdhni Tail) with Bramhi Tail Int J Ind Med 2023;4(5):07-12 DOI: <http://doi.org/10.55552/IJIM.2023.4502>

## INTRODUCTION

*Ahara, Nidra* and *Brahmacharya* are the *Trayopstambha* mentioned in *Ayurved* classics. *Nidra* i.e., sleep is one amongst them<sup>[1]</sup>. Sleep is a state of reduced mental and physical activity, in which consciousness is altered, and sensory activity is inhibited to a certain extent. During sleep, there is a decrease in muscle activity, and interactions with the surrounding environment are significantly reduced. While sleep is different from wakefulness in terms of the ability to react to stimuli, it still involves active brain patterns, making it more reactive than a coma or disorders of consciousness<sup>[2]</sup>. *Nidra* is the harmonious feature gifted by nature to the mankind which is an essential phenomenon for maintenance and restoration of both body and mind. In *Charaka Samhita*, *Acharya Charaka* has highlighted the importance of *Samyaka Nidra* that it leads to happiness, fertility, good memory and longevity of life<sup>[3]</sup>. The importance of sleep is well accepted by modern science also. Sleep is a physiological phenomenon which contributes in conservation of energy, restoration of tissues and growth, thermoregulation, regulation of emotions, neural maturation, memory and learning. It runs according to the biological clock mandatory for the wellbeing of human life's rhythm. Sleep disorders are commonly under diagnosed and are significant source of concern in the geriatric population. Compared to younger adults, the prevalence of insomnia is higher in middle and older adults and increases with age<sup>[4]</sup>. Up to 50% of older adults report insomnia symptoms; however, this does not mean that insomnia is a normal part of aging. Sleep onset or initial insomnia is manifested by difficulty falling asleep that occurs at the start of the sleep period<sup>[5]</sup>. Sleep maintenance or middle insomnia involves multiple and prolonged awakenings during the night<sup>[6]</sup>. Late insomnia

or early-morning awakenings is waking up early on mornings and being unable to return to sleep<sup>[7]</sup>. Older adults tend to have more challenges with sleep maintenance compared to younger adults, which results in reductions in total sleep time and sleep efficiency<sup>[8]</sup>. Several other factors are also involved in the disturbed sleep which includes no work after retirement, personal health problems and emotional trauma like death of spouse or family member, various medications. The current prevalence of insomnia is estimated approximately 6%.<sup>[9]</sup>. Antidepressant dependence is a state of adaptation caused by regularly taking a medication. Someone who is dependent on Antidepressants may experience unpleasant symptoms after abrupt discontinuation or reduction of use leading to serious side effects particularly in elderly patients. Taking all the above points about the use of allopathic medicines, their dependency and side effects, a thought was in mind to overcome insomnia and further to avoid side effects and dependency of allopathic medicine. In *Sushrut Samhita* the use of *Murdhni Tail* is mentioned very well in the disorders related to *Murdhi* (head)<sup>[10]</sup>. *Shirodhara* is one of the types of *Murdhni Tail* mentioned by *Vagbhata*.

## OBJECTIVES

- 1) To study the effect of *Shirodhara* with *Bramhi Tail* in the patients with *Nidranasha*.
- 2) To study an Ayurvedic literature about *Nidra* and *Nidranash*.
- 3) To study a detailed literature about insomnia through modern text.
- 4) To explore the knowledge of *Murdhni Tail* in the Ayurvedic text.
- 5) To evaluate the effect of *Shirodhara* in the symptoms of *Nidranasha* in older patients

## MATERIALS AND METHODS

**Selection of Sample:** The patients of age above 60 years and visiting the OPD with the

complaints of disturbed sleep (*Nidranash*) were selected irrespective of sex, religion, region, economic status and educational status.

### **Shirodhara:**

**Definition:** *Shirodhara* is a procedure of continuous pouring of a liquid on the forehead of scalp of head. The liquid used can be *Tail* (seasum oil), *Takra* (butter milk), *Kshira* (milk), *Kwatha* (various medicated decoctions) etc. *Nidranash* being a *Vataja Nanatmaja Vikara* (Ch. Su. 20/11) [11] and *Vatapradhanta* in old age.[12] medicated *Tail* with *Bramhi* herb (*Bacopa monniera*) was used for the purpose of *Shirodhara*

**Size of Sample:** 10 patients

**Selection of Drug for *Shirodhara*:** A lukewarm *Bramhi Tail*.

**Time duration of the procedure:** 30 min

**Time of the procedure:** 6-7 pm

**Duration of the setting :** 10 consecutive days

**Place of study:** Ojas Ayurved Panchakarma Centre, Nagpur

**Procedure:** The patients coming to the OPD were asked to sit relax for 10 minutes. Their pulse, BP were monitored on each day of *Shirodhara*. The patients were asked to lie down in supine position on the *Shirodhara* table. A roller bandage was applied just above the eyebrows to avoid the spilling of the oil in the eye. A wet cotton piece was also applied on each eyelid to protect the eye from oil. Then the medicated oil with *Bramhi* was poured in the container use for *Shirodhara* and a continuous Dhara (flow) has been done over forehead for about 30 minutes duration. The flow was maintained throughout the procedure so as the temperature of the *Bramhi Tail*. After Dhara patients were asked to wash the eyes with lukewarm water and advised not to expose to wind, sunlight and dust and advised to take bath after an hour with lukewarm water. Patients were also advised to avoid the excessive use of mobile,

television, reading throughout the setting of *Shirodhara*.

### **CRITERIA OF DIAGNOSIS**

Patients having complaints of insomnia (*Nidranash*) such as

- 1) Difficulty falling sleep (*Anidra*)
- 2) Trouble staying asleep (*Alpanidra*)
- 3) Waking up before anticipated wake time
- 4) Headach (*Shirahshool*)
- 5) Fatigue (*Angamarda*)
- 6) Worry / Anxiety (*Manastap*)
- 7) Lack of drive
- 8) Mood disturbance
- 9) Behavioural disturbances etc

### **CRITERIA FOR SELECTION**

- 1) All the patients above 60 years of age complaining about insomnia and other complains discussed above were selected.
- 2) Patients with controlled hypertension were selected for the study
- 3) Patients on antidepressant medicines were also selected.
- 4) All the patients willing to participate in study were selected.

### **CRITERIA FOR EXCLUSION**

- 1) Patients below 60 years of age.
- 2) Patients not willing for trial.
- 3) Patients leaving the treatment in between were excluded from the study.

### **CRITERIA OF ASSESSMENT**

In this study, the symptoms like sleeplessness, *Shirahshool* (headach), *Angamarda* (fatigue), after awakening symptoms, anxiety and nightmares are graded from 0 to 3 grading from no symptoms at all to the pick of it with a total score range from 0 to 18. Then their statuses of severity were noted before starting the treatment and are termed as before treatment values (BT). After administration of *Shirodhara* for 10 days all these parameters were noted and the scorings are termed as after treatment values AT. The scoring pattern for the assessment of symptomatic relief in insomnia is given below.

**A) Sleeplessness**

1) Sound sleep	0
2) Patient gets sleep at night or awakens early in the morning	1
3) Sleep disturbs at midnight due to any reason and does not get sleep afterwards	2
4) Doesn't get sleep at all	3

**B) Shirahshoola**

1) No symptoms	0
2) Mild degree (Occasionally complaints)	1
3) Moderate degree (once or twice in 2 – 3 days)	2
4) Severe degree (daily complaints)	3

**C) Angamarda**

1) No symptoms	0
2) Mild degree (Occasionally complaints)	1
3) Moderate degree (once or twice in 2 – 3 days)	2
4) Severe degree (daily complaints)	3

**D) After Awakening symptoms**

1) Fresh (Sukhavabodhana)	0
2) Sleepy or fatigued	1
3) Poor concentration	2
4) Tense, irritable	3

**E) Anxiety**

1) Not present	0
2) Mild: seems anxious, tense posture	1
3) Moderate: clearly very tense, fearful expression	2
4) Severe: continually agitated, pacing	3

**F) Nightmares**

1) No symptoms	0
2) Mild degree (Occasionally complaints)	1
3) Moderate degree (once or twice in 2 – 3 days)	2
4) Severe degree (daily complaints)	3

**Table-1****Table Showing Age-Wise Distribution Of 10 Patients of Insomnia**

Sr. No.	Age Group	No. of Patients	Percentage
1	60-65	4	40
2	65-70	3	30
3	70-75	3	30

**Table-2****Table Showing Sex-Wise Distribution Of 10 Patients Of Insomnia**

Sr. No.	Sex	No. of Patients	Percentage
1	Male	4	40
2	Female	6	60

**Table-3****Table Showing Effect of Treatment on Signs and Symptoms of 10 Patients Of Insomnia**

Sr. No.	Sign/Symptom	Symptom score			% of relief
		BT	AT	Difference	

1	Sleeplessness	18	5	13	72.22%
2	<i>Shirahshoola</i>	14	7	7	50.00%
3	<i>Angamarda</i>	16	8	8	50.00%
4	After awaking	17	5	12	70.59%
5	Anxiety	16	6	10	62.50%
6	Nightmares	18	4	14	77.78%
Average percentage relief					63.84%

## DISCUSSION

In this study patient suffering from Insomnia had average of 63.84% of relief, the percentage reliefs in each symptom taken for the study is as mentioned in Table-3. Out of the 10 patients selected for the study 40% were of age group 60 to 65 years and 30-30 % patients were between 65 to 70 and 70 to 75 age group respectively (Table-1). 60% patients of this series were female and 40 % were male (Table-2). The data was assessed as percentage of relief as below. The sleeplessness symptom had the percentage relief of 72.22 in all 10 patients, *Shirahshoola* and *Angamarda* got 50% relief. 70.59 %, 62.50% and 77.78 % reliefs were observed in the after awakening symptoms, anxiety and nightmares respectively (Table-3)

## CONCLUSION

In Sushrut Samhita the use of *Murdhni Tail* is mentioned very well in the disorders related to Murdhi (head). *Shirodhara* is one of the types of *Murdhni Tail*. *Sushruta* highlighted its importance in the *Tarpan* of *Prana* (nourishment of Prana Vayu in the brain) [13]. It is noted that the continuous use of *Shirodhara* over a certain period of time dilates the blood vessels supplying to the brain (circle of Willis) leading to calmness of mind and sound sleep by increasing the perfusion of oxygen to brain tissues. While doing the *Shirodhara* procedure the redness in the eyes of the patient is observed which might indicates the increased blood flow through the blood vessels. In *Sushrut Samhita* the *Nidranash* or *Anidra* is supposed to be

caused by the vitiation of *Vata* and *Pitta Dosh* [14] predominantly *Vata*. *Shirodhara* alleviates vitiated *Vata* and *Pitta* [15]. In elderly patients' vitiation *Vata* is there. By *Tarpan* action vitiation of *Vata* might be restored to normal condition. In *Charak Samhita* the *Nidranasha* is considered as the *Nanatmaj Vikara of Vata Dosh* and there is not best drug than *Tail* to alleviate the vitiated *Vata Dosh* [16]. Thus, *Shirodhara* reduces the vitiation of *Vata* reducing the resulting phenomenon i.e., *Nidranasha*. There was no any side effect which was observed in the administration of *Shirodhara* neither the dependency of it has been noted. It is very obvious from this study that Ayurvedic concept of management of Insomnia plays major role in present era to serve mankind. It will be of interest to compare the treatment like this with standard established having large number of samples.

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**Source of Support: None declared**

**Conflict of interest: Nil**

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