A CLINICAL STUDY TO EVALUATE THE EFFECTIVENESS OF THALAM WITH PANCHAGANDHA CHOORNAM IN NIDRANASHA

Anjalikrishna[1], Shaiju Krishnan.P[2]

[1]Final year PG Scholar, [2]Professor, Department of Panchakarma, MVR Ayurveda Medical College and Hospital, Parassinikkadavu, Kannur, Kerala.

Corresponding Author: dranjalikrishna4@gmail.com

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ABSTRACT

Thalam is a unique method of drug delivery in *Ayurveda*, which was developed and widely practiced by ancient *vaidyas* of Kerala. It is a modified form of *Murdha thaila* (Procedure of conducting treatments on the head using medicated oils) told by *Brihatrayi*. It can also be considered as a minor form of *Shirolepa*, coming under Keraleeya *Panchakarma*. It involves the external application of medicine to a specific part of *Shiras*. It has multi-dimensional therapeutic action in conditions like Insomnia, Bell's palsy, Psychosomatic disorders. The procedure involves the application of medicine on the shallow depression over the head by choosing proper medium and medicament depending upon the *Dosha* predominance. Ayurveda describes the main three pillars of life. Amongst that, *Nidra* (Sleep) is said to be the very important *Upasthambha* (Three main pillars of life). If not taken properly can cause severe disease condition, which will affect the physical and mental health as well. Lack of *Nidra* due to various *Dosha* conditions is called as *Nidranasha* (Loss of sleep). This study is an attempt to evaluate the effectiveness of the procedure *Thalam* with *Panchagandha choornam* in *Nidranasha.*

Keywords: *Ayurveda, Thalam, Nidranasha*

INTRODUCTION

Thalam is the process of applying medicines over the centre of the head. The process can be considered as a variant of *Murdhni thaila* & as a shorter and easier means of *Shirolepa. Thalam* is indicated in conditions such as *Ardita, Shirodaha, Vatika & Paittika Shira-soola and Nidranasha[1]*.

Nidranasha is caused due to the aggravation of *Saririka* as well as *Manasika doshas*. The *Saririka doshas* involved in the manifestation of *Nidranasha* are *Vata & Pitha*. The *Manasika Dosha* involved is *Rajodosha. Nidranasha* can be correlated with Insomnia that can be short term or chronic. Insomnia is sleeping disorder in which people have trouble sleeping. It may be difficulty in falling asleep or staying asleep[2].

According to *Ayurveda Ahara, Nidra and Brahmacharya* are the three important pillars that keeps a person in healthy status[3].According to modern scientific view, loss of sleep has many reasons like illness, stress, elder age, pain and mental illness[4]. In *Ayurveda* there are several herbs in single or compound form as the solution for *Nidranasha.*

Nowadays, due to loss of sleep, people suffer so many problems related with health. Loss of sleep affect the physical and mental health of an individual badly. *Nidra* is a state which refills the power of activity one loses in daily routine.

Aim and Objectives

To find out the effectiveness of Thalam with Panchagandha choornam in Nidranasha.

Materials and Methods

Selection of cases

Patients having Nidranasha within the age group 18-70 years from OPD and IPD of MVR AMC, Parassinikkadavu during the year 2021-2023 satisfying inclusion and exclusion criteria were included in this study.

Ethical clearance

The institutional Ethical Committee of the MVR Ayurveda Medical College and Hospital, Parassinikkadavu, Kannur, Kerala, approved the study. An informed written consent was taken from each willing patient. The patients were free to withdraw their name from the study at any time without giving any reason.

Inclusion criteria

People facing difficulty with night awakenings.
People having loss of sleep or very delayed sleep.

Exclusion criteria

People having rotating shift work.
People under medication affecting sleep.
People having other systemic illness.
Pregnant and lactating women.

Procedure

Study Design:

Single group clinical study.

Poorva karma

Patient was asked to sit and relax on a stool comfortably. BP was checked. Head of the patient was anointed with Moorchitha thila thaila.

Pradhana karma

10 g of Panchagandha choornam was mixed with required amount of Moorchitha thila thaila. The paste was applied over the head, specifically on the point Bregma, with a diameter of 4 cm. Patient was asked to relax completely and sit for a duration of 45 minutes.

Paschat karma

After completion, the paste was removed and the area where the paste was applied was rubbed with dry cloth. *Kachuradi choorna* was applied over the area. Patient was asked to relax for half an hour. BP was checked.

Observation Period: Patients were observed before the treatment, on each day of treatment and on 14th day (Follow up).

Study Duration -7 Days.

Follow up period: Follow up was done on 14th day.

Assessment Criteria:

Subjects were assessed by using Athens Insomnia Scale.

Diagnostic Criteria:

People are facing difficulty with night awakenings.
People having loss of sleep or very delayed sleep.

Statistical Analysis

The data obtained were tabulated and analysed statistically with SPSS version 27 software. Friedman test was used to compare the parameters between the treatment stages and Wilcoxon signed rank test was used for pairwise comparison.

Results

Symptoms before treatment is shown in Table 1.

The effect of therapy is shown in Table 2 and overall effect of the group is shown in Table 3.

Observation:

Age: Among 30 patients, the maximum percentage of patients (36.7%) was between (51-60) age group and minimum percentage of patients (16.7%) was between (61-70) age group.20% of patients belong to (27-40) and 26.7% belong to (41-50) age groups.

Gender: According to gender wise distribution of the patients, maximum percentage of patients.i.e.,76.7% were females and 23.3% were males.

Religion: Among 30 patients, the maximum patients, 90% were Hindus, whereas 6.7% were Muslims and 3.3% Christian. This shows only area wise predominance of Hindus in a particular place and religion is not relevant in this study.

Marital Status: All were married among the 30 patients. Marital status and disease cannot be related.

Education: Educational status wise distribution showed that 40% were graduates, 6.7% up to LP level, 30% up to UP level, 20% up to Pre degree and 3.3% of patients were postgraduates. This shows that patients who are graduates were mostly affected by Nidranasha. But this data is not relevant as most of the study population were under graduates. This shows the literacy trend in the particular area.

Occupation: 90% of patients were active and 10% were in sedentary life. This data shows that *Nidranasha* can affect all the groups, but active group are most affected by the condition.

Socio-economic status: : Most of the patients included in this study belonged to middle class (80%) and 20% belonged to poor class.

Diet: All patients in the study had mixed diet habits. This data shows that non-vegetarians are more affected by *Nidranasha*. But it is due to the predominance of non-vegetarians in the study population.

Dominant *Rasa*: All the patients were taking *Katu Rasa Pradhana Ahara* (100%). Intake of particular *Rasa* can vitiate the respective Doshas. As *Acharyas* have mentioned excessive intake of *Katu Rasapradhana Ahara* as one of the *Vata Prakopa Nidanas,* it can cause dosha imbalance and lead to *Nidranasha.*

***Agni*:** *Agni* status of the patients showed that, 70% of patients were having *Samagni,* 13.3% were having *Tikshnagni,* 10% were having *Mandagni* and 6.7% were having *Vishamagni*. This data shows that even though *Agni*, which is the prime factor for manifesting diseases in its derangement is in *Samavastha* in maximum number of patients, *Nidranasha* occurs.

***Koshta*:** Among 30 patients, 86.7% were having *Madhyama Koshta,* 10% were having *Mridu Koshta* and 3.3% were having *Krura Koshta*. The data shows that majority is having *Madhyama Koshta.*

Addiction: Among 30 patients, 26 patients (86.7%) were having no addictions, 2 patients (6.7%) were addicted to Alcohol, 1 (3.3%) was addicted to smoking and 1 (3.3%) was addicted to Tea. In this data most of the patients are not having any addictions. This data has no significance in this study as most of the patients in the study population were having no addictions.

Menstrual history: Distribution of patients according to menstrual history showed that 43.3% had attained Menopause and 33.3% had regular menstruation. This data shows that those who had attained menopause were affected more by the condition.

***Prakriti*:** Among 30 patients, majority of the patients were having *Vata Pitha Prakriti* (66.7%), 5 patients belonged to *Vata Kapha Prakriti* (16.7%), 4 patients belonged to *Kapha Pitha Prakriti* (13.3%) and 1 patient belonged to *Pitha Kapha Prakriti* (3.3%). This data shows that patients with *Vata Pitha* Prakriti were affected more by *Nidranasha.* Aggravation of *Vata* and *Pitha* is the main cause of *Nidranasha* and hence patients with *Vata Pitha Prakriti* are more prone to get affected with *Nidranasha.*

Satva: Distribution of patients according to *Satva* showed that, maximum patients (83.3%) belonged to *Madhyama Satva*, 13.3% had *Avara Satva* and 3.3%

had *Pravara Satva.* Madhyama satwa patients are more in this study.

Table 1: Assessment of parameters before treatment

Parameters	Frequency	Percent
SLEEP INDUCTION	18	60.0
AWAKENINGS DURING NIGHT	11	36.7
FINAL AWAKENING EARLIER THAN DESIRED	7	23.3
TOTAL SLEEP DURATION	18	60.0
OVERALL QUALITY OF SLEEP	21	70.0
SENSE OF WELL BEING DURING THE DAY	13	43.3
FUNCTIONING DURING THE DAY	13	43.3
SLEEPINESS DURING THE DAY	10	33.3

Table 2: Effect of treatment on symptoms

Parameters	Average Relief
SLEEP INDUCTION AT	72.2%
Relief_AF	94.4%
AWAKENINGS DURING NIGHT AT	83.3%
Relief_ AF	96.7%
FINAL AWAKENING EARLIER THAN DESIRED AT	86.1%
Relief_AF	93.9%
TOTAL SLEEP DURATION AT	73.3%
Relief_AF	92.2%
OVERALL QUALITY OF SLEEP AT	68.3%
Relief_AF	92.2%
SENSE OF WELL BEING DURING THE DAY AT	82.2%
Relief_AF	92.8%
FUNCTIONING DURING THE DAY AT	85.0%
Relief_AF	95.0%
SLEEPINESS DURING THE DAY AT	88.3%
Relief_AF	100.0%

Table 3: Overall effect of treatment

Overall Relief	AT		AF	
	Frequency	Percent	Frequency	Percent
100% - Complete cure	7	23.3	23	76.7
75-99% - Marked relief	13	43.3	5	16.7
50-74% - Moderate relief	9	30.0	2	6.7
25-49% Mild relief	1	3.3	0	0.0
0-24% - Unchanged	0	0.0	0	0.0
Total	30	100.0	30	100.0

DISCUSSION

In the present clinical study, 30 patients were selected for *Thalam.* On statistical analysis, the effect of the treatment on overall assessment showed that 23.3% had complete relief, 43.3% had marked relief, 30% had moderate relief, 3.3% had mild relief and there were no patients with unchanged status. Effect of treatment after following up showed that 76.7% had complete cure, 16.7% had marked relief, 6.7% had

moderate relief and there were no patients left in the category of mild relief and unchanged status. Age wise distribution shows that *Nidranasha* affects all age groups, more in the middle age group. As age increases sleep patterns tend to change and people have to face a harder time falling asleep. This may be due to increase in *Pitha Dosha* during that particular period as well as *Vata Dosha* as age advances.

Gender wise distribution shows that though it affects both the gender, females are more affected. Occupation wise distribution shows that *Nidranasha* can affect all the groups, but active group are most affected by the condition. All the patients were taking *Katu Rasa Pradhana Ahara.* Intake of particular *Rasa* can vitiate the respective *Doshas.* As *Acharyas* have mentioned excessive intake of *Katu Rasapradhana Ahara* as one of the *Vata Prakopa Nidanas,* it can cause dosha imbalance and lead to *Nidranasha.* Among 30 patients, majority of the patients were having *Vata Pitha Prakriti* (66.7%), 5 patients belonged to *Vata Kapha Prakriti* (16.7%), 4 patients belonged to *Kapha Pitha Prakriti* (13.3%) and 1 patient belonged to *Pitha Kapha Prakriti* (3.3%). This data shows that patients with *Vata Pitha Prakriti* were affected more by *Nidranasha.* Aggravation of *Vata* and *Pitha* is the main cause of *Nidranasha* and hence patients with *Vata Pitha Prakriti* are more prone to get affected with *Nidranasha.*

Probable mode of action

In this study, *Panchagandha choornam* was taken. The ingredients of the medicine are *Hreebera*(Coleus vettiveroides), *Useera*(Vetiveriazizinoides), <u>*Chandana*</u>(Santalum album*)* *Kachura*(Kaempferiagalanga), *Mustha* (Cyperusrotundus) , *Karpura*(Cinnamomumcamphora*) Moorchitha Thila Thaila* was used as the medium. Effects *of Panchagandha choornam* was described in *Keraleeya Chikitsa Padhathi* as retention of this medicine overhead relieves *Shiroruk, Mada, Murcha, Pithadaha, Bhrama and Nidranasha. Nidranasha* is explained as *Vata Nanatmaja Vikara,* in *Vata and Pitha Dosha Vriddi Lakshanas* and as *Lakshanas* of some other diseases. During the description of *Nidra Utpathi, Acharyas* has mentioned that *Sharirika Dosha*

Kapha, *Manasika Dosha Tama, Chetana Sthana Hridaya* and *Samjnavaha Srotas* are responsible for it. With the procedure of *Thalam* with *Panchagandha Choornam, Vata* and *Pitha Dosha* get pacified and there is elevation of the *Kapha Dosha.* When an individual sits down in a relaxed state for a longer time, *Tamasika Guna* overcomes the *Rajasika Guna.* The ingredients of *Panchagandha Choornam* are having *Sheetha Virya* in common except *Kachura,* which increases the *Kapha Dosha,* and the Yoga is said to have *Nidrajanana* property. Hence the procedure *Thalam* with *Panchagandha choornam* brings the *Samjnavaha Srotas* in peaceful state which helps in inducing sleep. There are 5 *Seemantha Marmas* explained in *Ayurveda* which may be compared with the sutures of cranium. Bregma, the meeting place of coronal and sagittal suture, may be considered to be the meeting point of *Seemantha Marmas,* which is the site of application of medicines in *Thalam.* Bregma, in infant skull is the anatomical landmark which represents the site of anterior fontanelle and in adult skull, the meeting point of parietal and frontal bones of skull. The ossification of skull is incomplete at birth and the fibrous membrane forming cranium before ossification is unossified at the angles of parietal bones forming 6 fontanelles of which anterior fontanelle is the largest (4 cms). Moreover, the scalp is very rich in blood supply. When *Thalam* is analysed with these anatomical backgrounds and vascular supply of body having direct link with inside of cranium, the chance of medicaments getting inside may be more as compared with surrounding areas. When the medicine is applied on proper site, it gets easily transmitted and absorbed into the *Twak* , which in turn will be carried throughout the body by *Rasa* and *Raktha vahinis* (*Rasa* and *Raktha Vaha Siras* always traverses together in the body).

CONCLUSION

Thalam with *Panchagandha Choornam* is proved as an effective and simple management in the condition of *Nidranasha.* The advantage of the procedure is that there is no need for IP management, it is cost effective, and the method of application is also simple. In

the present study, statistical analysis on the effect of the treatment after following up showed that 76.7% had complete cure. Hence it is proved that *Thalam* with *Panchagandha Choornam* is highly effective in *Nidranasha.*

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