

Effect of Jatamansi Taila Nasya and Kshiradhara in Insomnia

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ABSTRACT

Insomnia has tendency to damage the person's daily life, including his social and occupational life. If it is very chronic a person may develop many psychiatric illnesses. Recent studies have shown that about 40% of women and 30% of men are suffering from Insomnia. Insomnia is normally treated with Anti depressants, sedatives, tranquilizers and hypnotics having their own limitations. Nasya is quoted as Sukhaswapna prabhodaka and Moordhni taila is said to be highly effective in inducing good qualities of Sleep. Hence the present Study was undertaken with a purpose of evaluating and comparing the Effect of Nasya with Jatamamsitaila and Ksheera Dhara. It was a randomized, parallel group, single centre, comparative clinical study. The Pittsburgh Sleep Quality Index was used as assessment tool. The tool measures 7 components viz Subjective Sleep Quality, Sleep Latency, Sleep Duration, Sleep Efficiency, Sleep Disturbances, Use of Sleep Medications, and Daytime Dysfunction. Global PSQI score is the sum of all the seven components. Nasya with Jatamansi taila showed Highly Significant results in 6 components out of 7 components of Pittsburgh Sleep Quality Index, expect in Sleep medication. Ksheera dhara showed Highly Significant results in 5 components out of 7 components of PSQI expect in Sleep disturbance and Sleep medication. Hence jatamansi taila nasya and kshiradhara administered for schedule of 7 days effectively cure Insomnia

Key words: Insomnia; Nidranasha; Nasya; Jatamansi Taila; Kshiradhara; Pittsburgh Sleep Quality Index.

INTRODUCTION

Insomnia is one among the most common health complaints in medical practice and most prevalent of all Sleep disorders. Nidra is one among Trayopasthambha. [1] Nidra is the most neglected part of modern life style where one gives least importance to the timing, duration and quality of Sleep with Stress playing an important role in inducing Insomnia. This leads to Vataprakopa and in turn causes various Physical and Psychiatric illnesses. Recent studies have shown that about 40% of women and 30%

of men are suffering from Insomnia. Insomnia is normally treated with Anti depressants, sedatives, tranquilizers and hypnotics having their own limitations. Holistic management of Nidranasha is the need of the day and Ayurvedic professionals need to revalidate the management of Nidranasha. Nidranasha has been described in detail by our Acharyas in various contexts like Vataja nanatmaja vikara, [2] Vataja jwara etc.

The condition of Insomnia may not be a life threatening illness, but it has tendency to damage the person's daily life,

including his social and occupational life. If it is very chronic a person may develop many psychiatric illnesses.^[3]

Among Panchakarma, Nasya is quoted as Sukhaswapna prabhodaka in Sushruta Samhita chikitsa sthana 40th chapter. The other therapy that can counter nidranasha is Moordhni taila which is said to be highly effective in inducing good qualities of Sleep. The moordhni taila constitutes four varieties of therapeutic procedures out of which Dhara^[4] is important. Hence the present Study was undertaken with a purpose of evaluating and comparing the Effect of Nasya with Jatamamsitaila^[5] and Ksheera Dhara.

MATERIALS AND METHODS

It was a randomized, parallel group, single centre, comparative clinical study. Written informed consent was taken before conducting the study related procedures. Subjects were included in the study if indicated YES to all inclusion and others were excluded. A total of 40 Patients approaching the OPD and IPD of JSS Ayurveda medical college hospital, Mysore were selected on the basis of age, irrespective of sex, socio economic status and cast having the signs and symptoms of Nidranasha and Insomnia. Subjects were randomly assigned in two groups in a 1:1 ratio comprising 20 in each group by simple randomization method.

Inclusion criteria:

- Patients of either sex between the age group of 20-60yrs.
- Patients with symptoms of Nidranasha.
- Insomnia with the history of minimum 1 month.
- Willing to come for regular follow up.
- Able to give written informed consent.

Exclusion criteria:

- Patients suffering from other Systemic illnesses and on any other medications.

- Patients who have undergone any Surgery in the past 6 months.
- Patients who are unfit for Nasya and Dhara.

Diagnostic criteria: Along with the clinical features of nidranasha,^[6] ICD 10 criteria^[7] for diagnosis was adopted

- If the complaint is either difficulty in falling asleep or maintaining Sleep or of poor quality of Sleep.
- If the Sleep disturbance has occurred at least three times per week for at least one month.
- If the unsatisfactory quality of Sleep either causes marked distress or interferes with social and occupational functioning.

Intervention:

Group-A: Nasya in shastrokta vidhi with Jatamamsi taila for 7days.

Group-B: Mahisha Ksheeradhara for 7days.

Assessment Tool: Pittsburgh Sleep Quality Index (PSQI): The Pittsburgh Sleep Quality Index (PSQI)^[8] was developed to measure Sleep quality and to discriminate between good and poor Sleepers. Sleep quality is a complex phenomenon that involves several dimensions, each of which is covered by the PSQI. The covered components include Subjective Sleep Quality, Sleep Latency, Sleep Duration, Sleep Efficiency, Sleep Disturbances, Use of Sleep Medications, and Daytime Dysfunction. Global PSQI score is the sum of all the seven components of PSQI.

Description: The PSQI is composed of 19 self-rated questions and 5 questions rated by a bed partner or roommate (only the self-rated items are used in scoring the scale). The self-administered scale contains 15 multiple-choice items that inquire about frequency of Sleep disturbances and subjective Sleep quality and 4 write-in items that inquire about typical bedtime, wake-up time, Sleep latency, and Sleep duration. The 5 questions to bed partner are multiple-

choice ratings of Sleep disturbance. The PSQI generates seven scores that correspond to the domains listed previously. Each component score ranges from 0 (no difficulty) to 3 (severe difficulty). The component scores are summed to produce a global score (range of 0–21).

Assessment was done before (BT) and after the intervention (AT) and at the end of 7 days follow up (FU). The findings were compared and analyzed by using descriptive statistics, contingency coefficients, repeated measure ANOVA using SPSS for windows.

OBSERVATION AND RESULTS

Among 40 subjects 20 were male and 20 were females. 16 were housewives, 11 Govt. employees and 10 were businessmen. 34 patients belonged to urban area. 26 subjects had the chronicity of 1 to 5 years and rest was less than one year chronicity.

Component 1: Subjective Sleep Quality: This denotes the rating given by the patient about the quality of his/her Sleep. Both groups showed remarkable improvement on this parameter, with highly significant statistical values. (Table 1) However by observing the Contingence Co efficient value, it can be said that the result is better in Group A.

Component 2: Sleep latency: This denotes the time taken by the patient to become asleep after lying down on the bed. The results obtained shows that in both the three groups the change was Highly Significant. (Table 2)

Component 3: Sleep duration: It indicates the number of hours patients are experiencing the Sleep. The results obtained shows that in both groups the change was Highly Significant. (Table 3) However by observing the Contingence Coefficient value, the patients of group B showed better results than Group A.

Component 4: Sleep efficiency: It indicates the Sleep efficiency which can be calculated by dividing the number of actual hours of Sleep with number of hours spent in bed multiplied by hundred. Both groups showed remarkable improvement on this parameter, with highly significant statistical values. (Table 4)

Component 5: Sleep disturbance: It indicates the disturbance in Sleep during the night in terms of night awakening without any reason or getting up for micturition. The results obtained shows that there is highly significant improvement in group A, But in group B the decrease in Sleep disturbance is not Significant. (Table 5)

Table 1: Showing result on Sleep Quality

SUBJECTIVE SLEEP QUALITY		COMPONENT 1				Total	P Value
		Very Good	Fairly Good	Fairly Bad	Very Bad		
Group A	BT	0	3	5	12	20	0.000
	AT	13	7	0	0		
	FU	12	8	0	0		
Group B	BT	0	6	8	6	20	0.000
	AT	12	8	0	0		
	FU	11	9	0	0		

Table 2: Showing result on Sleep latency

SLEEP LATENCY		COMPONENT 2			Total	P Value
		1 (fairly good)	2 (fairly bad)	3 (very bad)		
Group A	BT	0	6	14	20	0.000
	AT	15	4	1		
	FU	9	9	2		
Group B	BT	0	8	12	20	0.000
	A T	15	5	0		
	FU	5	15	0		

Table 3: Showing result on Sleep duration

SLEEP DURATION		COMPONENT 3				Total	P Value
		0(>7hrs)	1(6-7hrs)	2(5-6hrs)	3(<5hrs)		
Group A	BT	0	0	0	20	0.000	
	AT	0	16	4	20		
	FU	0	15	4	1		20
Group B	BT	0	0	1	19	0.000	
	AT	2	9	9	0		20
	FT	0	7	13	0		20

Table 4: Showing result on Sleep Efficiency

SLEEP EFFICIENCY		COMPONENT 4				Total	P Value
		0(>85%)	1(75-84%)	2(65-75%)	3(<65%)		
Group A	BT	0	0	0	20	0.000	
	AT	6	7	5	2		20
	FU	4	7	6	3		20
Group B	BT	0	0	1	19	0.000	
	AT	5	9	3	3		20
	FU	3	7	7	3		20

Table 5: Showing result on Sleep disturbance

SLEEP DISTURBANCE		COMPONENT 5			Total	P Value
		0(score)	1(1-9 score)	2(10-18 score)		
Group A	BT	0	9	11	20	0.000
	AT	14	6	0	20	
	FU	9	10	1	20	
Group B	BT	1	18	1	20	0.261
	AT	4	16	0	20	
	FU	1	19	0	20	

Table 6: Showing result on Sleep medication

USE OF SLEEP MEDICATION		COMPONENT 6		Total	P Value
		0 (No medications)	3(Three or more times a week)		
Group A	BT	15	5	20	0.004
	AT	20	0	20	
	FU	20	0	20	
Group B	BT	14	6	20	0.001
	AT	20	0	20	
	FU	20	0	20	

Table 7: Showing result on Daytime dysfunction

DAYTIME DYSFUNCTION		COMPONENT 7				Total	P Value
		0	1(1-2 score)	2(3-4 score)	3(5-6 score)		
Group A	BT	0	9	6	5	20	0.000
	AT	18	2	0	0	20	
	FU	18	1	1	0	20	
Group B	BT	0	13	6	1	20	0.000
	AT	16	4	0	0	20	
	FU	11	9	0	0	20	

Component 6: Use of Sleep medication: It represents the patients need for Medication to induce Sleep. Both groups showed statistically significant improvement. (Table 6)

Component 7: Daytime dysfunction : It represents Daytime dysfunction which indicates the patients had trouble staying awake while driving, eating meals, or engaging in social activity during day time or trouble in keeping up enough enthusiasm to get things done. Both groups showed remarkable improvement on this parameter, with

highly significant statistical values. (Table 7)

GPSQI (Global Pittsburgh Sleep Quality Index): Global PSQI score is the sum of all the seven components of PSQI. In Group A Before treatment the mean of PSQI scale score was 15.25 ± 2.05 and after treatment was reduced to 4.4 ± 2.09 and it was 5.4 ± 2.4 at the end follow up. In Group B Before treatment the mean of PSQI scale score was 13.8 ± 2.4 and after treatment it was reduced to 5.2 ± 2.53 and it was 6.7 ± 2.03 at the end of 7 days post

treatment follow up. The result was highly significant in both groups.

DISCUSSION

Jatamamsi taila contains Jatamamsi and Tila taila. It was selected on the basis of its indication in Nidranasha mentioned in Priya Nigantu. Selection of this drug was done on the basis of its easy method of preparation, easy availability of the drug and with its non irritation property during Nasyakarma. Mahishaksheera is selected on the basis Vatahara, Tandra, Nidrakara properties as explained by Haritha. In this clinical trial both groups showed relief from insomnia.

Probable mode of action of jatamamsi taila nasya: Jatamamsi possesses the properties like Nidrajanaka, Sanjnasthapaka, Medhya, Vedanasthapaka, Anulomana, Hridaya niyamaka, Balavardhaka, ^[9] etc. There are reports that Jatamansone, the terpene from N. jatamansi was shown to exert tranquilizing activity in mice and monkeys. ^[10] The essential oil from the rhizomes has a depressant action on the CNS of guinea pigs and rats. Various extracts of N. Jatamansi root showed both sedative and hypotensive activity in rats. ^[11] The present study confirms that the Jatamansi has a sedative effect.

Acharyas have mentioned nose as the gateway to shiras. ^[12] Nose is a highly vascular structure and its mucous membrane provides good absorbing surface. Hence jatamamsi taila spread along the nasal mucous membrane. Active principles of jatamansi along with taila get absorbed inside the olfactory and respiratory mucosa and from there carried to different places. The taila used controls vatadosha which is cause for nidranasha. Hence the Jatamamsi taila action gets augmented when used as nasya.

Probable mode of action of ksheeradhara: In Shirodhara patient feels relaxation of the frontalis muscle. Dhara tends to normalize the entire body and

achieve a decrease activity of Sympathetic nervous system with lowering of brain cortisone and adrenaline level synchronizes the mind and spirit and this continues even after the relaxation. Sleeping in supine position also helps in relaxation. The therapeutic effect may be due to diffusion of ksheera through the fine pores present over fore head. ^[13] By Kshiradhara functions of senses improved. Stress and Anxiety are also relieved.

CONCLUSION

In this Study it was observed that Nasya with Jatamamsi taila showed Highly Significant results in 6 components out of 7 components of Pittsburgh Sleep Quality Index, expect in Sleep medication. Ksheera dhara showed Highly Significant results in 5 components out of 7 components of PSQI expect in Sleep disturbance and Sleep medication. Hence jatamansi taila nasya and kshiradhara administered for schedule of 7 days effectively cure Insomnia.

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