

MANAGING INSOMNIA WITH JATHIPHALA (MYRISTICA FRAGRANS) POWDER - A PILOT STUDY

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ABSTRACT

Insomnia affects an individual's physical, psychological and social life. Large number of sedatives and other treatments are in practice for managing the condition but they have limitations. A pilot clinical trial was conducted on 10 subjects of *Nidranasha* (Primary Insomnia) with *Jathiphala churna* (powder of *Myristica fragrans*) for duration of 14 days. There was a reduction of Regensburg insomnia scale score and was found statistically significant with increase in the number of sleeping hours.

Keywords: Insomnia, *Jathiphala*, Regensburg insomnia scale, *Ayurveda*, *Nidranasha*

INTRODUCTION

Insomnia is a sleep disorder where the person is unable to fall asleep or stay asleep. Insomnia is one of the most ubiquitous forms of sleep disorder and with it come a host of negative consequences. It occurs as a sign and also as symptom. It may be primary or may be as a result of a somatic or psychic illness. Changing lifestyle, work profile, eating habits, leisure activities and different life stresses influence sleep of an individual and insomnia is an important emerging health issue in a rapidly changing India. Approximately 30% of adult samples across the

world suffer from Insomnia¹. 28% of urban population from north India² and 20-30 % of south Indians suffer from different sleep disorders³.

Insomnia impairs cognitive and physical functioning and is associated with a wide range of impaired daytime functions across a number of emotional, social, and physical domains. Compared with good sleepers, people with persistent sleep disturbances are more prone to accidents, have higher rates of work absenteeism, dimin-

ished job performance, decreased quality of life, and increased health care utilization⁴.

Nidra is one of the *trayaopasthambha*⁵, the essential requirement for the sustenance of life in this earth. Ayurveda comprehends insomnia under *Nidranasha* and is one of the 80 *Nanatmaja Vikara of Vata*¹¹. *Nidranasha* is an independent disease by itself⁶ and it has been explained as symptom of many physical and psychiatric illnesses. Chikitsa Manjari a later text quotes *Manda Nidra* as a separate disease entity⁷. As a treatment of *Nidranasha* many external therapies and *Pathya Sevana*⁸ have been said by *Acharyas* which need hospitalization. *Jathiphala* (*Myristica fragrans*) a *Madakari*⁹ drug given orally may induce sleep.

Jathiphala is having *Katu, Tikta, Kashaya rasa, Katu Vipaka, ushna veerya* and *Laghu, teekshna, Snigdha guna*. It is *Kaphavata Shamaka, Deepana, Grahi, Krimighna, Vatanulomana, Pachana, and Madakari*. As the drug is easily available and cost effective, a pilot study was carried out to evaluate the efficacy of *Jathiphala churna* in the management of *Nidranasha* (Primary insomnia).

Methods

10 subjects fulfilling the diagnostic criteria of insomnia were selected from Amrita Ayurveda

hospital Vallikkavu, Kollam, Kerala, between 40-60yrs and subjects with chronic systemic illness, and addiction were excluded from the study. Assessment was based on the improvement in the signs and symptoms of insomnia by using Regensburg insomnia scale for measuring qualitative and quantitative sleep parameter¹⁵. All the participants underwent regular blood investigations to rule out the systemic illness.

Intervention

Participants were given 2gm of *Jathiphala Churna* at 9pm daily after food for 14 days and stopped. The assessments were done on 0th, 8th, 15th, 30th and 90th day. They were advised to follow their routine activities and were not given any guidelines on diet or activities. The participants were maintaining a sleep diary which was completed every day morning.

Observations and Results

Participants were from different economic background and all had primary insomnia. 6 participants were employed either part-time or full time. 2 participants gave the history of taking sleeping pills occasionally. All of them had problems either with initiation or maintenance of sleep.

Table 1: Showing Sleeping hours of 10 subjects of insomnia in 4 assessments

Subjects	0 th day	8 th day	15 th day	30 th day	90 th
1	1	2	4	4	4
2	3	3	7	6	5
3	6	7	8	8	7
4	1	1	7	6	6
5	5	5	7	7	6
6	5	4	6	6	5
7	1	1	6	6	5
8	6	8	9	8	8

9	6	7	8	8	8
10	1	1	6	4	4

Sleeping hours of the participants were not changed much in maximum no of subjects after a week of treatment but was drastically im-

proved by 15th day assessment. The table also shows that sleeping hours was maintained even after the 3 months of follow up.

Table 2: Showing Regensburg insomnia scale score of 10 subjects of insomnia in 4 assessments

Subjects	0 th day	8 th day	15 th day	30 th day	90 th
1	23	20	11	11	12
2	18	18	7	10	10
3	17	15	5	6	7
4	21	21	5	5	7
5	16	16	5	7	8
6	17	18	7	7	10
7	24	25	6	7	15
8	18	15	5	5	5
9	14	12	5	6	8
10	20	20	6	10	10

Regensburg insomnia scale for measuring qualitative and quantitative sleep parameter up to 12 is seen in normal sleepers. That was found in all the 10 subjects of insomnia by the end of 2 weeks of intake of *Jathiphala choorna*. The

sleep induction was maintained even after the stoppage of the drug when assessed up to 3 months duration.

The pre test post test assessment of this pilot study was done using paired T test.

Table 3: Showing the statistical analysis of Regensburg insomnia scale score of 10 subjects of insomnia

	Paired Differences					t	df	Sig.(2-tailed)
	Mean (BT-AT)	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
0 th – 8 th day	.80000	1.54919	.48990	-.30823	1.90823	1.633	9	.137
0 th - 15 th day	12.60000	2.75681	.87178	10.62790	14.57210	14.453	9	.000
0 th – 30 th day	11.40000	3.13404	.99107	9.15804	13.64196	11.503	9	.000
0 th -90 th day	10.00000	2.74874	.86923	8.03367	11.96633	11.504	9	.000

The data of this clinical study when applied with statistical analysis shows significance in 14th day, 30th day and 90th day. The drug is not significant on 7th day.

DISCUSSION

The qualities of *Jatiphala* (*Myristica fragrans*) are like, *tiktha* (bitter) in taste, *Ushna* (hot) in

potency, *laghu*, *teekshna* in *guna* (having light, penetrating properties), it is *rochana* (increases taste perception), *svarya* (promotes sound) *grahi* (reducing intestinal motility by enhancing digestion), and reduces *vata* (one of the body humour responsible to cause loss of sleep) and reduces *kapha* (body humour) *dosha*. It cures distaste,

cough, vomiting, chest pain, rinorrhea, breathing difficulty.

By analysing the properties and action of *Jathiphala*, it is evident that this drug works at the level of digestion and also the mental faculty. CJ Sherry et. al (1982)¹⁷ established that lignoin extract of nutmeg (*Myristica fragrans*) caused a significant increase in the duration of light and deep sleep in the young chicken and the presence of trimyristin tended to increase the effect of the extract. The euginols extracts also have muscle relaxant and anti convulsing activities.¹⁸

Since *Jathiphala* is a *madakari* (intoxicating) drug a safe dose¹⁹ level as 2 gm was selected considering the acute toxicity. *Madakari* drugs at low doses may act as sedatives. Treatment course was planned only for 14 days to prevent the habitual intake of sedative drug.

All the subjects were of Primary insomnia so the cause of insomnia was unknown. Even though the drug could improve sleep for a few within a week of administration but it was statistically insignificant at the 8th day assessment. By the end of the treatment in 15th day it was clinically found effective by increasing the mean sleeping hours from 3.5 to 6.8 hrs and statistically significant at $p < 0.001$ and that was maintained.

CONCLUSION

Jathiphala churna is effective drug in managing insomnia when administered for 2weeks. Long term use is not recommended as it may become habit forming and its chronic toxicity studies are lacking. It's better to avoid this drug in persons suffering with gastric irritation as it may worsen their condition since it is *ushna* and *teekshna*. Large scale controlled studies are necessary to prove its efficacy.

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