



Research Article

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ROLE OF AYURVEDIC HERBAL FORMULATION IN THE MANAGEMENT OF PRIMARY INSOMNIA: A CASE REPORT

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ABSTRACT

Insomnia affects an individual's physical, psychological and social life. Insomnia affects about 40% of the total population especially elderly. Ayurveda considers it as Nidranasha and the cause is imbalanced Vata and Pitta Dosha. Large number of sedatives and other treatments are in practice for managing the condition in modern system of medicine, but they have limitations. A simple Ayurveda formulation of Jathiphala (*Myristica fragrans*) could manage a case of Primary Insomnia (nidranasha) within a period of 14 days. There was a reduction of Regensburg insomnia scale score from 21 to 9 within a month along with the improvement in the quality of life, even after withdrawing the drug. A drastic change was observed in sleep initiation and duration. The action of Jathiphala may be because of its Madakari effect. This Ayurveda formulation is economic, not habit forming and effective at short period of drug administration. So large scale clinical trials are required to establish its sedative action.

Keywords: Insomnia, Jathiphala, Regensburg insomnia scale, Ayurveda, Nidranasha, *Myristica fragrans*.

INTRODUCTION

Sleep is an essential faculty of one's life. Ayurveda describes Nidra (sleep) as the withdrawal of mind and sense organs from its respective faculties. When Sanjnavaha srotas (channels of consciousness) is covered by Kapha (one among the three physical humors) and Tamas (one among the three psychic humors) sleep sets in¹.

Insomnia is a sleep disorder that may occur acutely and may become chronic disorder in due course of time. The pathophysiology of insomnia is usually multi factorial which includes both physical and psychological involvement. Insomnia affects up to 40% of the general population yearly and is a significant cause of morbidity and mortality.²

The direct and indirect costs of insomnia place a tremendous economic burden on society and employers. In addition to the cost of medical treatment and drugs, measurable costs of insomnia include reduced productivity, increased absenteeism, accidents, and hospitalization, as well as medical costs due to increased morbidity and mortality, depression due to insomnia, and increased alcohol consumption². Ayurveda explains sleep related diseases under nidranasha (loss of sleep). Nidranasha (loss of sleep) can be due to Pitta dosha (one among the three physical humors) and Kapha dosha (one among the three physical humors)³. Nidranasha (loss of sleep) affects an individual as it leads to Dukha (disease), karshya (mal nutrition), Abala (loss of strength), Kleeabatha (infertility), Ajnana (inability to grasp knowledge) and may even become a cause to death⁴.

It is evident from many studies that improvements in sleep with sedative use are statistically significant, but effect is very less. Even the adverse events seen with sedatives are many and they also produce cognitive impairment in elderly⁵. Chronic insomnia does not usually be treated, but the presenting form of insomnia

(i.e., initial, middle, or late) will change over time⁶. For example, participants in a study presented with an average chronicity of 10 years at their baseline assessment among which 88 per cent continued to report insomnia 5 years later⁷.

Many herbal formulations have been tried and found statistically significant. Effective Ayurveda treatment includes Abhyanga (oil massage), Samvahana (soothing massage), Udvartana (powder massage), and herbal formulations internally etc. Along with the above therapies specific diet and regimen⁸ are also prescribed.

Here is a case study of an insomnia treated successfully by an Ayurveda herbal formulation.

Case Report

A 54-year-old woman, who is a homemaker walked in to the OPD of Amrita Ayurveda Hospital with the complaint of reduced sleep since 15 years. She also has the problem of multiple joint pains since one year.

The patient, who was apparently healthy before 15 years, started developing disturbance in her sleeping pattern. She regularly goes to bed at 10 pm but is unable to sleep until 1 am or even more. She usually gets up by 4am. As she couldn't find any cause for the sleeplessness she didn't consult any doctor. Initially she used to count numbers in descending order to get sleep but that didn't help her much. Even the quality of sleep was very poor as she experiences about 3-5 awakenings every night and with each awakening requires at least 30 minutes to fall asleep again. She also experiences daytime fatigue and is unable to concentrate in her work. She does not take naps during the day. She does not snore and has no usual limb movements during sleep (history from husband). Her general health has been good since last 1 year. Bedtime makes her tense and worried. She says that sleeping is a frustration for her and she lie down turning sides and watching

the clock. Recently since one year she has developed joint pain which is not so severe as to disturb her sleep. She does not take any sleeping pills and has no symptoms of depression. There is no marital conflict even.

Physical examination was within normal limits. Thyroid function test was also normal. She didn't report any previous health issues. So it was a clear case of primary insomnia which is termed as Nidranasha in Ayurveda.

Medicine Administration and Assessment

The patient was treated at the OP level for a period of 14 days. The oral administration of Jathiphala Churna (powder of *Myristica fragrans*) boiled in milk at bed time. Internally, neither other medication nor specific diet plan was followed during the course of treatment. The sleep was assessed by Regensburg insomnia scale for measuring qualitative and quantitative sleep parameter.

Medicine Preparation

2 g of Jathiphala Churna (powder of *Myristica fragrans*) was boiled in 200ml milk and 400ml water and reduced to 200ml. The patient is advised to have this medicated warm milk by 10 pm after food and before going to bed.

OBSERVATIONS AND RESULTS

When the patient came for the follow up after 7 days of drug intake, found no drastic change in the sleep pattern. Moreover, she did feel daytime drowsiness. She was asked to continue the medication for the next 7 days. To our surprise there was drastic change in her pattern of sleep at the end of the second week. There were changes in the initiation, continuity and duration. Drug was stopped by the 14th day and the patient was followed up after 1 month.

Table 1: Assessment of sleep variables at different intervals

Sleep Complaints	0 th day	8 th day	15 th day	After a month
Duration for sleep initiation	90 min	90 min	30 min	10 min
Sleep duration	3h	4h	6h	8h
No of sleep disturbance	3-4	3-4	2	2
Regensburg insomnia scale	21	18	10	9

During the 14 days of treatment the patient had reported 60% improvement in her symptoms. The patient is back to her normal routine. The initiation time and intermittent waking up occurrences during sleep got considerably reduced. The patient was able to sleep within 10 min and hours of sleep increased from 3 h to 6 h. The patient felt afresh on waking up next day after sleep and has stopped worrying about the disturbances in sleep anymore. After a regular follow-up after 4 months, it was found that there were no many occurrences of sleepless nights. Besides, the quality of sleep was improved to a great extent. During the follow-up period patient was not on any medications

DISCUSSION

Since it was primary insomnia drug was selected after considering her Prakriti (body phenotype) and the imbalanced Dosha (body humors). The formulation has two ingredients, Jathiphala and Milk.

The qualities of Jathiphala (*Myristica fragrans*) is Tikta (bitter) in taste, Ushna (hot) in potency, Laghu and Teekshna in guna (having light, penetrating properties), it is Rocana (increases taste perception), Svarya (promotes sound), Grahi (reducing intestinal motility by enhancing digestion), and reduces Vata (one of the body humor responsible to cause loss of sleep) and reduces Kapha (body humor). It cures distaste, cough, vomiting, chest pain, rhinorrhea, breathing difficulty.

The cows milk⁹ which is sweet in taste cool in potency, Snigdha (unctuous) and Guru (heavy) in property is Vatapittahara (pacifying Vata and Pitta Body humors) and increasing Kapha (one of the body humor responsible to cause sleep). It is Rasayana (rejuvenating), Medhya (improving mental faculty) and Jeevana (maintaining life).

By analyzing the properties and action of the two ingredients, it's evident that this drug works at the level of digestion and also the mental faculty. CJ Sherry et al. (1982)¹⁰ established that ligroin 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 trimyearsistin tended to increase the effect of the extract. The euginols extracts also have muscle relaxant and anti-convulsing activities.¹¹

Since Jathiphala is a Madakari (intoxicating) drug a safe dose level as 2 g was selected considering the acute toxicity. Madakari drugs at low doses may act as sedatives. Treatment course was only for 14 days to prevent the habitual intake, but it could produce a sustained effect. It can be said that the Nidranasha was managed well.

CONCLUSION

Primary insomnia can be managed well with the decoction made from milk and Jathiphala Churna. This formulation can induce sleep not only during the period of drug administration, but even later. Outcomes of this case study suggest improvement in the quality of sleep as well as in the quality of life in the patient.

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