

Management of Thukkaminmai (Insomnia) Through Siddha Medicine – A Case Report

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Abstract

Thukkaminmai (insomnia) is a type of sleep disorder. Individuals with insomnia find it difficult to fall asleep, stay asleep, or both i.e difficulty with initiation, maintenance, duration or quality of sleep that results in the impairment of daytime functioning, despite adequate opportunity and circumstances for sleep. 35 years old female visited the PAID OPD BLOCK, National institute of siddha with complaints of sleeplessness (*Thukkaminmai*) over the period of past 6 months. The Pittsburg Sleep Quality Index (PSQI) and Epworth Sleepiness scale has been used as a standard tool to measure the status of sleep and sleepiness status respectively. Diagnosed as *Thukkaminmai* (insomnia) and provided siddha treatment for 1 manadalam (48 days) with *Plain Amukkara Chooranam* and *Muthu Parpam* (Internal medication) and *Chukku thylam* (For oleation). After starting the intervention, she got a good sleep. In follow-up, the quality of sleep and sleepiness stage improved well. The Sleep Quality Scale and Sleepiness Measurement Questionnaire was used before and after the treatment for sleeplessness. This study provides us a lead to initiate large-scale studies (case series, observational studies, RCTCs etc.) for sleep regulation.

KEYWORDS, Epworth Sleepiness scale, Pittsburgh sleep quality index, Thukkaminmai, Muthu parpam, Plain Amukkara Chooranam.

1. Introduction

In India, Sleeplessness is more prevalent among adolescent age group population because of modified life styles activities [1]. The adult age group between 18-30 years were mostly affected by insomnia associated symptoms. Approximately 20-22% of global population are affected by Insomnia disorder. In India, nearly 28% of population suffer from insomnia and 10% are under occasional insomniac symptoms. Majorly urban population has major prevalence than that of population from rural sector [2]. Insomnia is most often classified by duration Transient insomnia - Less than one month, short –term insomnia –between one and six months and chronic insomnia - more than six months. Insomnia is classified by International Classification of diseases (ICD 10) under Episodic and paroxysmal related sleeping disorder (G.47) [3].

According to Siddha hygiene and preventive medicine (*noyillaneri*), *Nittirai pankam* is characterized by poor quality of sleep which is mainly due to disturbances. This can be directly correlated with the term insomnia [1]. Apart from this, Siddha literatures '*noyillaneri*' describes few more clinical conditions of Sleeping disorders such as *Nittirai inmai* (complete absence of

sleep), *Anittirai*(hypersomnia), *Pakalnittirai* (sleeping indaytime) etc [4].

In Siddha system of medicine, fourteen involuntary reflexes listed are Abanan, Urination, bodily faecal matter, hunger, thirst, Sneezing, Cough, Vomiting, Yawning, lacrimation, Sleep, Sperm/Ovum and breathing [4]. These reflexes are considered as involuntary reflexes which are not advisable to intact voluntarily, which may lead to health consequences. Out of the fourteen reflexes, sleep is also one of the important factors and the consequences of altered sleep was well documented in Siddha literature. The health consequences such as heaviness of the head, altered hearing may lead to deafness in chronic habitual and altered speech (Aphasia).

The diagnosis was arrived based on WHO guidelines for Insomnia related behavioral science. The basic criteria for the gold standard diagnosis used for the study was a) Complaint of poor sleep pattern expressed by patients b) Difficulty in falling asleep within 30minutes c) awakening during night sleep at least for 2 times d) day time irritability, drowsiness and fatigue e) any of one category like physical problem, lifestyle changes or on any psychiatric treatments.[5] In this case study, a case of Thukkaminmai (Insomnia) treated with Plain Amukkara chooranam [6] and Muthu parpam [7].

2. Materials and Methods

Patient information

A case of 35 years old female from kancheepuram, working as a teacher, married and from a middle class family. The case came with the complaint of sleep disturbance for the period of past 6 months. Her complete gynaecological profile was normal. She has 2 children. There is no known history of diabetes mellitus, thyroid disorders, hypertension, asthma. There is no relevant family history.

Past history

She had a continued her treatment in private allopathic hospital in Kanchipuram and she was treated with sleeping pills for period of one month. she got good sleep when using this drugs. During the intermediate skipping of tablets, she had a persistent sleeplessness. After the withdrawal of medicine there was a relapse after three weeks. On December 5th, 2022 she visited a Paid OPD block in National Institute of Siddha for insomnia and she had withdrawn her allopathic CNS depressant medicine on October 28th 2022.

Laboratory Assessment

She was checked for routine haematology parameters and the results were completely normal. Her haemoglobin was 13mg/dl. Based on WHO sleeplessness criteria, the diagnosis was confirmed as mentioned in the Table 1.

Assessment tool

Before the therapeutic intervention, the participant was subjected to Pittsburgh sleep quality index (PSQI) [8] which is a sleep condition indicator (composed of 9 standardized questions), developed by University of Oxford to measure the Quality of Sleep in night time [9]. Each question carries 0- 4 point (a scale of 0,1,2,3 and 4) and the final summarized scoring could be ranging between 0-36 Points followed by the sleep quality has been categorized as mentioned in table 2 [10].

Table 1. Assessment of WHO sleeplessness/Insomniac criteria

Criteria No	Criteria factors	Present or Absent
1	Complaint of poor sleep pattern hardly expressed by patients	Present
2	Difficulty in fall asleep within 30minutes	Present
3	Awakening during night sleet at least for 2 times	Present
4	Day time irritability, drowsiness and fatigue	Present
5	Any one category like physical problem, lifestyle changes or on any psychiatric treatments.	Present

Table 2. Guide for evaluation of Sleep quality based on PSQI Scale

Final Score of PSQI	Comments and suggestions
0-9	The sleep problem will be the severe for the case and definitely the person needs to get some help or counseling.
10-18	The patient has some sleep problem and suggested to examine the sleep habits
19-27	The sleep is in good shape and advice to adjust the sleep schedule and try for better more
28-36	The sleep is in good shape and advice to follow as it is

In addition, the Epworth Sleepiness Scale (ESS consist of 8 simple questions) was used to measure the sleep feel in day time [11] Whenever the night sleep gets disturbed, relatively there is a chance of getting tired and falling asleep or sleepiness in the day time [12]. Based on this, the ESS was used to measure the state of day time sleepiness. It consists of preferable 8 different situations (8 questions) in which the rate of tendency to become sleepy or chance of dozing are measured using the scale ranging from 0, no chance of dozing/Sleepiness to 3, high chance of dozing/Sleepiness (Table 3). The score ranged between 0-24 [13].

Table 3. Guide for evaluation of Sleepiness through ESS index

Total score of ESS	Comments
0-7	Unlikely the patient has abnormally sleepy
8-9	Patient has an average amount of daytime sleepiness

10-15	Excessively sleepy depending on the situation and suggestion to seek medical attention
16-24	Excessively sleepy and suggest for definite medical attention

Therapeutic intervention

Therapeutic intervention (herbo-mineral combination) like plain amukkara chooranam and muthu parpam was given internally for 48 days (I mandalam). Both plain amukkara chooranam and muthu parpam is mainly indicated to relieve the pitha diseases, nervous disorders, sleep disturbances etc. External oil bathing (oleation) was advised weekly twice. Oleation is one of the general habitual practice mentioned in siddha literature noi anuga vidhi, to maintain healthier life. Patient adopted the scheduled intervention as mentioned below.

Table 4 Treatment protocol for thukkaminmai (insomnia)

S.no	Drug	Dose	Adjuvant	Duration
1	Plain amukkara chooranam	2 gm, bd	Milk	48 days
2	Muthu parpam	100mg, bd	Milk	48 days
3	chukku thylam	Quantity sufficient (for external use)	-	Weekly twice

3. Discussion

The outcome of the siddha treatment protocol for thukkaminmai (insomnia) was measured based on the Pittsburgh sleep quality index (PSQI) for quality of sleep and Epworth sleepiness scale (ESS) for sleepiness. In PSQI scale, the score of 15 (48.57%) in pre-treatment and the score of 25 (81.5%) in post - treatment was observed. It is mentioned in figure 1. The quality of sleep get increased after siddha treatment. At the same time, the Epworth sleepiness scale (ESS) score was 45.2% before the treatment, felt sleepy during daytime and during the activities like sitting, working, watching television etc. whereas post - treatment shows 22.1% (mentioned in figure 2), the sleepiness score reduced as well as the patient felt better at this time. The information form PSQI and ESS scale was collected through face to face interviews and filled by the physician on a replay to the questions. During this treatment, she was advised to visit once in every 15 days at the Outpatient Department, Paid Opd Block, National Institute of Siddha. After the above mentioned treatment period, the patient was followed up for 2 months without any medical interventions she doesn't have relapse of her symptoms.

Figure 1 . PSQI score on quality of sleep

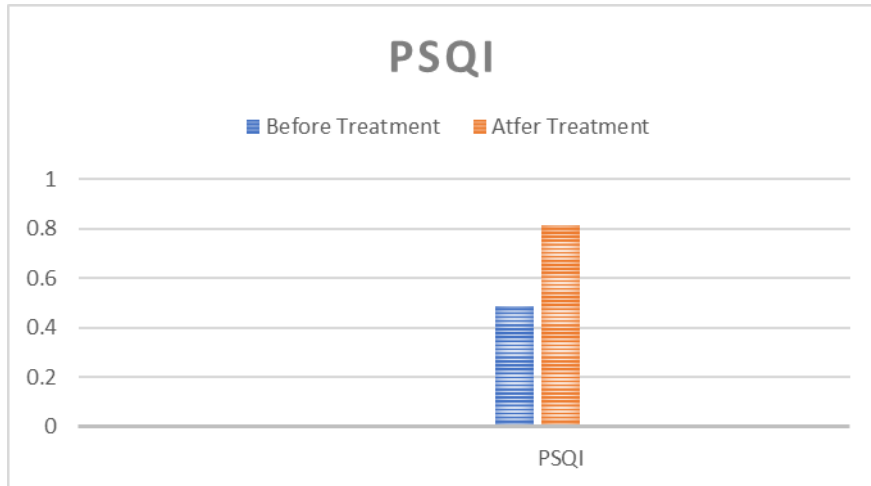
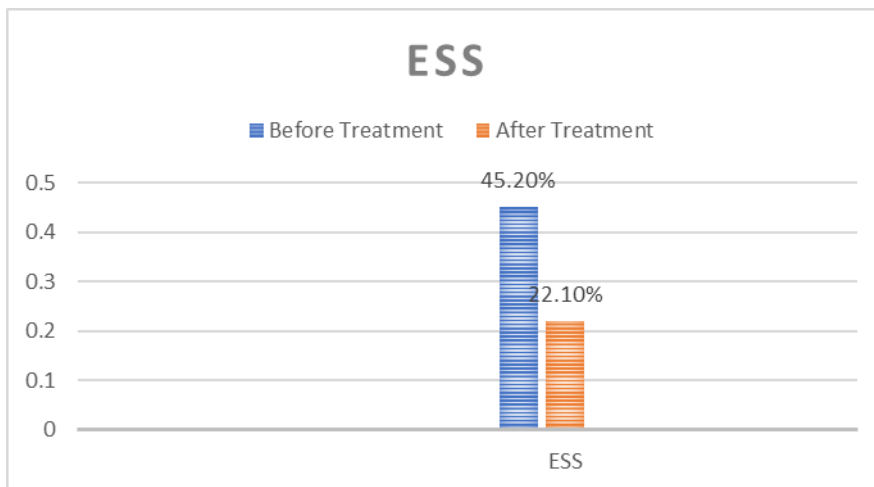


Figure 2. ESS scale on sleepiness index



Conclusion

This case report shows the improvement and could alleviate sleep disturbance, stress, etc. furthermore, clinical validation studies are to be carried out in future.

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