

REVIEW OF AYURVEDIC STRATEGIES TO OVERCOME ATINIDRA (HYPERMOMNIA) AND IMPROVE QUALITY OF LIFE

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ABSTRACT

Sleep is one of the *trayopstambha* (Subpillars) mentioned in *Ayurveda*. It plays an important role in proper brain function and systemic physiology across many body systems. In present era sleep problems are increasing including excess in quantity of sleep. Many factors are responsible for this ranging from environmental factors, lifestyles, medical condition etc. which has both short- and long-term adverse effect on health.

Many research have been done on sleep disorders and researchers have shown that hypersomnia causes more complication and has increased mortality rate as compared to insomnia. Many solutions are there for insomnia and persons suffering from this consider it as a problem but a hypersomnia patient does not consider it until it causes some health complication. Thus, an *Ayurvedic* literature review was done to know the etio-pathogenesis of *atinidra* and probable preventive & curative measures to overcome this and improve the quality of life as *Atinidra* can be managed well by *Ayurvedic* principles which not only includes treatment but dietary and lifestyle modifications as well. Further, there is no mention of any single or poly herb formulation which can prove to be effective in *atinidra*, so it is need of an hour to do research in this area.

Keywords. *Atinidra*, Quality of life, Hypersomnia

INTRODUCTION

In present era, Sleep is often a neglected component for both physical and mental health but it has major role in maintaining health. It helps the body to repair, get adequate rest and enables individual to be fit and ready for next day. Sleep is a basic human need which is essential for good quality of life. In *Ayurveda* sleep has given prime importance and is considered as one of the integral parts of *trayopstambha* (three sub pillars) of life. It is said that delight, growth, strength, virility depends on proper quality and quantity of sleep while its disorder can cause weakness wasting, impotence etc.¹ *Nidra* is known as *Vaishnavi* as it occurs naturally by the blessing of God Vishnu and *Papni* because

it obstruct ritual activities which are meant for gaining *purusharth-chatushtya*² Improper sleep is declared as public health problem by center of disease and control in United State.³ The main purpose of this review article is to identify the links between the *atinidra* and health status both on long and short term basis.

Anatomy of sleep: - According to modern science the brain stem communicates with the hypothalamus hence controlling the transmission between wake and sleep.⁴ There are sleep promoting cells within the hypothalamus and brain stems which produce brain chemical called GABA (gamma aminobutyric acid) which reduces the activity of arousal centers.

Ayurveda is used frequently for treatment of lifestyle related disorder and *atinidra* is one such component. *Atinidra* is considered as an independent disease in context of *kapha nanatmaj vyadhi*⁵ and also a symptom found in many diseases. Thus, scientific evidence regarding its effectiveness need to be study so that it can be acceptable as it is the era of evidence-based management. This article presents a view on concept of sleep and *atinidra* in *Ayurveda* along with its scientific relevance.

MATERIALS AND METHODS

Classical textbooks both *Brihatrayi* and *Laghutrayi* were reviewed. Online database including research work related to the topic and Article published in various index generals were reviewed thoroughly.

Concept of Sleep:

Sleep in Ayurveda- Sleep is one of the four states of mind according to *Darshan Shastra* in which only the life sustaining vital functions like respiration, circulation etc are going on. *Nidra* occurs when there is no association of mind with sense organs (*indriyas*) and this detachment is due to tiredness of both body and mind. Mainly *Kapha Dosha* and *Tamo guna* are responsible for sleep.⁶

Vagbhat has described about the sleeping methods and said that one should sleep after consuming light and easily digestible food and 1 *yaam* (3hours) after sunset⁷

According to *Daksha samhita*, 2 *yaam* (6 hours) is right quantity of sleep but it also depends on *prakriti*, food, occupation and age of individual.

Types of sleep- *Acharya Charaka* and *Vagbhat* have classified sleep into 6 and 7 types respectively⁸. Among these types *prakritic nidra* is called as *Bhudhatri* and is only desirable one.

III effects of Atinidra- In this context *Acharya Charak* has included all excessive, untimely and less sleep as a cause of unhealthiness as it destroy happiness and lifespan and is included under *Kalratri* and may cause many disease⁹

Physiology of sleep- Sleep is defined as unconsciousness from which an individual can arouse by sensory or other stimulus. It is divided into two types, slow waves and rapid eye movement sleep.¹⁰ Sleep causes two major physiological effects- one on nervous system and on other functional system of body which includes

- a. neural maturation
- b. facilitation of learning
- c. cognition
- d. clearance of metabolic waste
- e. conservation of metabolic energy¹¹

Atinidra in modern aspect-It can be correlated with hypersomnia which includes reduction in sleep latency, excessive duration of sleep at night, and excessive daytime sleep. Obstructive sleep apnea and narcolepsy are among the common disease conditions which comes under this.

1. Obstructive sleep apnea (OSA) is a type of sleep apnea in which there is recurrent episodes of obstruction of upper airways either complete or partial during the time of sleep. It is mainly because of reduction in blood oxygen saturation despite the effort to breathe.¹² If we compare from females, males are mostly affected and individuals mainly complaints of increased day time sleep. It is found more in obese persons and snoring is the main complaint¹³

A population-based study was conducted in North India in which it can be concluded that the prevalence of OSA is considerably high with noticeable variation

and increase in age and gender. Males are more affected by OSA as compared to females. Statistically not much significant difference was found regarding the association of OSA with age and gender.¹⁴

In a cross-sectional study conducted in patient of OSA concluded that A high proportion of patients prefer the use of complementary and alternative medicine (CAM) as treatment. This underscores the need to conduct further research in this field.¹⁵

2. Narcolepsy it is a type of nervous system disorder which diminishes capability to control sleep and wake cycles. It involves excessive daytime sleepiness or short involuntary sleep episodes.¹⁶

The risk for diseases like stroke is increased by 85% if an individual sleeps and nap for too long. Not napping or napping for less than 30 minutes reduces the risk and those who nap regularly for around 90 minutes have 25% higher risk.¹⁷

Atinidra and its causes: According to *Asthang Sangrah* the causes of *Atinidra* includes excessive intake of food and indigestion causing *kapha Vriddhi*. This elevated *kapha* dosha results in decrease in digestive fire leading to *Aama* formation. This formation is due to obstruction of the channels (*strotas*) causing heaviness in the body and laziness ultimately resulting in excess sleep.¹⁸ Also there is mentioned that taking water immediately after meal can lead to laziness and excess of sleep. Excess nourishment also causes too much sleep.¹⁹

Ayurveda though has mentioned excess and unhealthy diet and indigestion as main cause of *atinidra*, by going through classical text it was analyzed that the following lifestyle habits also contribute to the cause of *atinidra*^{20,21}

1. Lack of physical activity
2. Excess emotional distress
3. *Kaphaj* disorders etc.

There are many causes of excessive sleep, the most common among them are change in sleep schedule which can be due to any reason like occupation, change in place etc., insufficient sleep and sleep disorders like sleep apnoea. Medical conditions associated with excessive sleepiness include infections, asthma, gastrointestinal disorders, and metabolic abnormalities.²²

Oversleeping is associated with many health problems, including:

- Type 2 diabetes
- Heart disease
- Obesity
- Depression
- Headaches
- Greater risk of dying from a medical condition

Preventive and therapeutic aspect of *Atinidra* as per *Ayurveda*

Aahar

1. *Ruksha, Tikshna and Katu* rasa dominating diet should be given

2. Fasting is an important factor that may affect sleep function and helps in improving the quality and quantity of sleep of patients suffering from *atinidra*. It is one of the treatment options mentioned by *Acharya Charak* while explaining about the *atinidra*²³, hence research works to support the statement are needed, since no such studies were conducted so far.

3. Person who are having excess sleep should avoid things like sugarcane juice, curd, buffalo milk, meat of animals of marshy places, eatables prepared from jaggery etc.²⁴

Vihar (Life style modification)

1. Patient suffering from lack of sleep should include yoga in their daily routine. Yoga will also help in increasing *Sattva*

Guna resulting in goodness, constructive and harmonious mind.

A cross-sectional study was conducted data was collected from elderly people aged 60 years or more living in Nagpur city it was concluded that addition of regular Yoga exercises in the daily routine of elderly people can help to achieve good sleep quality as well as improve the Quality of life²⁵

2. Physical activities such as brisk walking, jogging should be included.

Exercise training reduces SDB (Sleep Disordered Breathing) severity, with obstructive sleep apnea (OSA) the most common type of SDB examined. A recent meta-analysis of five studies found that exercise training reduced OSA severity by 32% despite a nonsignificant decrease in body mass index (BMI).²⁶

A sample of more than 2,600 men and women in United States, ages 18-85 was taken and it was found that 150 minutes of moderate to vigorous activity a week, as per the national guidelines has provided improvement of about 65% in sleep quality. A comparison was also made between their day sleeping pattern and it was observed that people who are doing physical activity felt less sleepy as compared to those with less physical activity.²⁷

Aachar (Conduct and behavioral modification)

As *Sattva Guna* is important for the proper sleep, efforts need to be done in order to maintain the same.²⁸ In *Astangyoga* the *Yam* and *Niyam* are mentioned which forms the code of conduct and gives guidelines regarding moral, ethical and social aspects so these principals must be inculcated to enhance the *Sattva Guna* and combat *atinidra*.

Ayurvedic therapies

Kayavirechan (purgation), *Shirovirechan* (administration of drug by nasal route), *Vaman* (emesis) *Raktamokshan* (bloodletting) should be given to patient of *atinidra*.²⁹

Vaghbhatt has mentioned *Tikshna Anjana*(collyrium) as treatment of *atinidra* and also *Nasya* in the form of powder which will be quick acting.³⁰

DISCUSSION

In order to give promising results better understanding of *nidana*, *samprapti*, *dosha* involved are vital to get proper diagnosis and plan the treatment. The clinical features of Narcolepsy simulate with *samprapti* of *tandra* (which is a primary symptom in *atinidra*) to a greater extent like *bala hani*, *agyanta*, *gaurava*, *jrimbha* and *klama*³¹. OSA can be correlated with *atinidra* and *ati diwa swapna*. *Atinidra* is listed in the sign of aggravated *ras dhatu*³² and in the symptoms of *kapha vridhi*³³ while describing the characteristics of *triguna* increase in *tama guna* is consider responsible for *Nidralutam*(excess sleep)³⁴ *Sharangdhar* describe *atinidra* under *kapha nanatmaja vikara*.³⁵ Hence the treatment should aim at correcting the aggravated *rasa dhatu*, *kapha* and *tama guna* and purification of the body.

The drug which is given by nasal route directly reaches the CNS³⁶ so the drug administered through nasal route will reduce the *kapha* and *tama guna* when given in powered form (*Pradhaman Nasya*).*Agni karma* being *ushna*, *tikshna* in properties which is opposite to properties of *kapha* (*Snigdha* , *Sheeta*, *pichhila*, *guru* etc.³⁷) . *Raktamokshan* will help in pacifying *kapha*. *Tikshna anjana* helps in expelling the vitiated *doshas*. *Vaman* is considered best for reducing *kapha dosha*. Hence, all this *panchkarma* procedures can be beneficial.

Wholesome and balanced diet having the property of *kapha* alleviating should be recommended. By adopting swasthivritta principles *atinidra* can be cured.

However, not much studies have been conducted regarding *atinidra* so there is a need to conduct various studies on this and it should focus mainly on evaluating the efficacy of different *ayurvedic therapies* and life style modification.

CONCLUSION

Atinidra can be managed well by *Ayurvedic* principles which not only includes treatment but dietary and lifestyle modifications as well. *Panchkarma* therapies can play a major role in this. But keeping in view of today's lifestyle of people it is difficult for most of patients to give time for *panchkarma* procedures So modified options like *Sadyo Vaman* and *Virechan* etc. need to be encouraged and studies should be conducted to find its effectiveness. Further, there is no mention of any single or poly herb formulation which can prove to be effective in *atinidra* so it is need of an hour to do research in this area.

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