



A COMPARATIVE CRITICAL STUDY ON PHYSIOLOGICAL BENEFITS OF NIDRA

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ABSTRACT:

Ayurveda regards Nidra (sleep) as one of the most essential factors responsible for a healthy life thus it is enumerated under the important sub pillars of the body (*Trividha Upasthamba*), which sustain life by supporting normal functioning of the *Dosha*, *Dhatu* and *Mala*. In *Ayurveda* it is also explained under the non-suppressible urge (*Adharniya Vega*) which shows its importance in the maintenance of *Dhatu Samya* which is the main aim of *Ayurveda*. Quality sleep is an indicator of good health as it is stress-relieving and normalizes bodily tissues. Hence getting enough sleep at proper time supports wellbeing and good quality of life. We find beautiful description about benefits of Nidra in *Ayurveda* as Proper Nidra protects growth and development of body and mind. Modern physiology, also deals that sleep plays an important role in physical, mental and emotional wellbeing. Hence this article is an attempt to interpret the relevance of *Ayurveda* classical benefits of Nidra in modern physiology.

Key Words: *Nidra*, *Trayopastambh*, Sleep Physiology, Benefits of Sleep

I. INTRODUCTION

Nidra is the illusive energy of the god and naturally it has its way over the all created beings. At the time of *Sarga*, *Tamoguna* is prominent and due to the prominence of *Tamoguna* at night Nidra occurs. Hence it is called as *Tamomayee*. Physical and mental fatigue is the main cause of sleep. When the *Manas* (mind) are exhausted and the exhausted *Indriyas* (sense organs) detract or withdraws from their *Indriyarthas* (objects) that causes the sleep (*Cha. Su. 21/35*)¹. *Kapha Dosha* plays an important role in the formation of sleep in the human being. Because whenever there is a rise in *Kapha*, there will be naturally increase of *Tamo Guna* that leads to sleep as the *Kapha Dosha* and the *Tamas Guna* of mind are having interrelationship and plays an important role in the formation of sleep and also due to *Avarana* of *Kapha* i.e., obstruction of *Shleshma* in *Sanjnyavahi Srotas* causes the *Nidra*.

Modern medical science describes as, sleep is the natural state of rest for mind and body with closed eyes characterized by partial or complete loss of consciousness. Loss of consciousness leads to decrease response

to external stimuli and decrease body movements. Depth of sleep is not constant throughout the sleeping period. It varies in different stages of life.

Importance of Nidra:

As like *Ahara* (proper diet), *Swpna/ Nidra* (proper sleep) is also essential for the *DehaVrutti* (maintenance of the body). *Sthoulya* (obesity) and *Karshya* (emaciation) are specially caused by sleep and food (*Cha. Su. 21/51*)². Commenting on this *Acharya Chakrapani Datta* explained as *Nidra* is a type of *Vihara* it is classified as *Ayoga, Atiyoga and Samyak Yoga*. *Samyak Yoga* provides *Sukha* (health), *Atiyoga* of *Nidra* causes *Sthoulya* (Obesity) and *NidraAyoga* causes *Karshya* (emaciate).

The proper observance of these three aspects, *Ahara* (food), *Nidra* (sleep) and *Abrahmacharya* (sexual act) will support the body just like pillars supporting a building (*A. Hri. 7/52*)³.

The *Nidra* which has taken at proper time period provides *Sukha* (happiness) and *Ayush* (long life span) as like the flashed true knowledge providing accomplishment to a *yogi* (*Cha.Su. 21/37*)⁽⁴⁾. *AcharyaCharaka* also describes the importance of sleep under one among the management of *Ati Krushata* (leanness) as *Swapna* (sleep) which leads to *Brumhana* (corpulent) and make the man like a *Varaaha* (boar)⁴ (*Cha.Su 21/34*).

Physiological Benefits of Nidra-

Nidrayattam Sukham Dhukham Pushtihi Kaarshyam Balaabalam/

Vrushata Kleebata Jnyanam Ajnyanam Jeevitam Na cha //⁵(cha.Su. 29/36, Ast. Hri.7/53)

The aspects of *Sukha* (happiness), *Pushti* (nourishment), *Bala* (strength), *Vrushata* (virility), *Jnyana* (knowledge), *Jeevita* (long life) are attained by sound sleep and timely sleep whereas improper sleep leads to *Dukha* (sorrow), *Karshya* (emaciation), *Abala* (weakness), *Kleebata* (impotence), *Ajnyan* (ignorance) and *Na Jeevita* i.e., *Marana* (death). All these factors are depended on *Nidra*.

Materials:

Discussion:

Sleep is a natural and periodic state of rest for the mind and body, occurring at regular intervals. Proper sleep is a fundamental component of a healthy lifestyle. Hence, sleep can be described as Stress Level Elimination Exercise Plan. The amount of sleep each person needs depends on many factors, including age. For most adults, 7 to 8 hr. per night appears to be the best amount of sleep. Sleep deprivation is now being recognized as an increasingly common condition inherent to modern society, in today's era, people are not getting plenty hours of sleep because of busy life schedules and overload, as a result, work hours have engaged the time of sleep. Tension also contributed its share in reducing the sleeping time. If a healthy person not getting proper sleep, will become a patient. It is not a serious problem in the beginning but later on, it leads to number of health nuisance and ailments. So, sleep loss not only is a social issue but also leads to a large number of human disorders. It has been found that the frequency of sleep disturbances has increased in the industrialized world during the past few decades.

Critical Analysis of Physiological Benefits of *Nidra*:

Sleep is a process essential for many vital functions of mind and body. It plays a significant part in human lives, enabling energy conservation, influencing psychological states, improving cognition and overall performance. Sleep at the night time is essential for to maintain balance of the body constituents (*Dhatusamyā*), attentiveness, good vision and good complexion and good digestive power.

Acharya Sushruta described that those who take proper sleep-in proper time will not suffer from any type of disease of the mind as their mind will be calm and cool. they gain potency and good features, good virility their body will be good looking they won't be weak or obese and they live healthy long life.

Ayurvedic classics described that, Happiness, misery, nourishment emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life and death, are depending on the proper and improper sleep. And excessive sleep and prolonged vigil take away both happiness and longevity. If an individual has taken good sleep in the night, then that individual may remain happy and active in the whole day. The sleep helps in building the body and general physique but in the other hand if sleep has not taken regularly then it may directly cause the ill health. Research works in modern medical science on physiological benefits and adverse effects of sleep supports the description of in sleep in *Ayurvedic Classics*.

Nidrayattam Sukham Dhukham:

Ayurveda describes *Sukha* as *Arogya* and *Dukha* as *Anarogyā*. Many recent researches shows that proper sleep is the cause for health and happiness and also there is evidence that improper sleep may cause many disorders. The insomnia is dealt as being tired makes the individual crank. An exhausted person is not a happy person. Krueger found in their research on life satisfaction as there is a direct correlation between sleep quality and overall happiness⁽¹⁰⁾. A recent Gallup poll got the same results as people who get adequate sleep are more likely to rate their lives as happier⁽¹¹⁾. This indicates the proper sleep gives happiness and improper sleep gives sorrow or unhappiness.

Pushṭi Karshya Bala Abalam:

Sleep enhances muscle recovery through protein synthesis and human growth hormone release. Sleep is vital for cementing muscle repair liked to body movements. Together with the muscle repair it causes new muscle growth and also produces its own muscle building hormones that happens during sleep, this allows for overall improved athletic performance. Sleep is especially important for active individuals as their energy consumption is often very high and their bodies require sufficient rest in order to replenish energy, active brain cell restoration and promote muscle growth. When brain reaches the REM phase of sleep, body 'unlocks' the ability to recover organs, tissues and bones as well as regenerate immune cells and stimulate human growth hormone secretion. So, this phase of sleep is also called as rejuvenating sleep phase. And also, the research says that the individual who slept only 5.5hours had 60%less muscle mass at the end of the study while those who slept 8.5hours had 40% more muscle mass. Obviously, we can see the powerful effect that sleep has on muscle recovery and growth. This signifies the importance of proper sleep which provides *Pushṭi* (nourishment) and *Bala* (Strength) whereas improper sleep causes *Karshya* (leanness) and *Abala* (weakness).

Vrushata and Klibata:

Sleep can also affect the sexual power of human being as it helps in strengthening the body and ultimately help in increasing the proper digestion of the diet and through this it helps in converting the *Ahara Rasa* up to the *Shukradhatu*. Many researches are revealing that infertility across all ages is affected by the quality, timing and duration of sleep. The researches in human and animal models are clearly shows that sleep deprivation alters the levels of reproductive hormones that are Key players in determining the tendencies of male and female fertility. Findings from this study show that sleeplessness produces physiological alterations similar to oxidative stress which stimulates the activation of HPA axis and inhibits the HPG axis. There by resulting in a high level of corticosteroids in a blood. High corticosteroids are implicated in several cases of infertility in men and women. There is research on effect of sleep Deprivation on the male reproductive System in Rats,⁶ and they concluded that sleep deprivation may influence sperm quality, hormone levels and histopathology of testis, associated with male reproductive system in rat. Since shortened sleep duration may adversely affect the male reproductive system, sleep deprivation should be considered as a possible contributing factor in any decline of male fertility rates. And another study on sleep Deprivation and late Bedtime impairs Sperm Health through increasing Antisperm Antibody Production: A perspective study of 981 Healthy Men⁽⁷⁾ and found that short and long sleep duration and late bedtime were associated with impaired sperm health in the study cohort, partly through increasing ASA production in the semen. This signifies the importance of sleep for *Vrushata* (Virility) and improper sleep is proven as cause for *Klepbata* (impotency) as said in our classics.

Jnyanam and Ajnyanam:

Sleep deprivation and sleep disruptions cause severe cognitive and emotional problems. Lack of sleep affects part of brain called the prefrontal cortex. This region is responsible for important learning functions like working memory. When an individual doesn't get enough sleep, brain doesn't function properly and causes difficulty to pay attention and process information. Poor sleep affects mood and behavior, too, which can affect performance in learning. It also affects the part of the brain where creative thinking happens and people who don't get enough sleep can struggle with creative tasks or coming with new ideas.⁸

Jeevitam Na Cha (Maran):

Not getting enough sleep can increase the risk of early death from accidents while driving or doing something potentially hazardous, injuries, or with many health problems. Prolonged and recurrent sleep loss has serious health consequences, such as an increased risk of diabetes and heart diseases however severe chronic sleep deprivation may actually lead to death i.e. fatal familial insomnia or sporadic fatal insomnia conditions can leads to death. And also excessive daytime sleepiness also can increase the risk of life style disorders such as diabetes, dyslipidemia etc. supporting to this we can find the description of *PramehaNidana* (causative factors of diabetes)as *Aashya Sukham Swapna Sukham.....Kapha kruchasarvam*. It means *Swapna Sukha* (excessive sleepiness) is a major cause in the pathology of *Prameha* (Diabetes mellitus). *Kapha Krichra Sarvam* is also told which means *Kapha* is a common factor in *Samprapti* of *Vimshati Prameha* (20 types of sleep). Hence the involvement of *Kapha, BaddhaAbaddhaMedas* is clear in *Prameha*, which is nothing but the outcome of improper sleep. Hence to conclude, *Nidra* is main factor in manifestation of health as well as disease. Especially the life style diseases

of present scenario and are the major cause for immature death. It is the time to create Global awareness regarding the normal sleep its duration, position, & its ill effects. When this Nidra is performed in *Prakrutha Awastha* without consuming sleep-inducing pills, alcohol or any abnormal activities then that sleep can provide physiological benefits and can avoid life style disorders in certain extent.⁹

CONCLUSION

1. Nidra is an essential natural phenomenon for maintenance and restoration of life, in *Ayurveda* is considered under *Trayopastambha* as well as *Adharaneyavega* i.e., it should be mandatorily carried out or practiced in a natural way without suppression.
2. Proper sleep provides balance of the body constituents, by all means. sleep is said to nourish and repair the tissue damage caused by various catabolic activities of the body.
3. Many modern Research works supports that the physiological benefits of proper sleep and adverse effects of improper sleep, described in *Ayurvedic* classics are evident till today.

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