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Review Article

Significance of Sleep: Ayurvedic Perspective

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ABSTRACT

Sleep is the most important component of our physiology. Ayurveda considers *nidra* in *traya-upastambha* which are the three supporting subpillars of life. Proper and improper sleep governs various important aspects of life such as happiness, misery, nourishment, emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life and death. Obesity and emaciation are especially dependent on proper or improper sleep and diet. Adequate amount of sleep as well as suitable timing of sleep is needed for maintenance of good health. Various forms of improper *nidra* can be appreciably considered in *nidan panchak* of many disorders. Unhealthy pattern of sleep may forecast some major illness. Therefore, importance of a healthy sleep should be considered for the completely disease free health of the individual.

Keywords: nidra, sleep, nidan panchak, traya-upastambha

INTRODUCTION

Sleep is abroad term which affects various bodily functions regulated by it. In today's modern era, it has been a topic of concern. Due increased great to technologies, night shift duties, excessive social networking indulgence, stress etc. there has been some direct or indirect impact on the quality of a healthy sleep which in turn affects the health of an individual. Nidra an is essential phenomenon of life, which affects the physical as well as mental status of an individual. There is a wide description of sleep in Ayurveda as an important part of traya-upstambha as well as in context of various disorders.

Acharya Charak has described nidra in chapter of ashtauninditiya purusha in sutrasthana and also included aswapna (loss of sleep) in 80 nanatmajavatavikara.

Acharya Sushruta explains it in sharir sthana in the chapter garbha vyakaran

shariram; which enlightens its role in nourishment and development of body.

Ashtanga sangraha describes *nidra* and *nidravikara* in *viruddhaanna-vigyaniya adhyaya*. Ashtanga hridaya describes it in *AnnarakshaAdhyaya*, while explaining *traya-upstambha*.

Definitions

Sleep is the non-deliberate absence of thought-waves or knowledge. Dreamless sleep is an inert state of consciousness in which the sense of existence is not felt. Sleep is a state in which all activities of thought and feeling come to an end.^[1]

Sleep can be defined as a condition of body and mind which typically recurs for several hours every night, in which the nervous system is inactive, the eyes closed, the postural muscles relaxed, and consciousness practically suspended.^[2]

What causes nidra?

When the mind including sensory and motor organs is exhausted and they dissociate themselves from their objects, then individual sleeps. ^[3] According to acharya Sushrut, the heart is said to be the primary seat of consciousness in the body. Sleep overcomes a man whenever the heart is enveloped in the illusive effect of tama. Sleep is caused due to tama and it is the quality of sattva that brings on awakening. swabhava (nature) Mainly is the fundamental cause of sleep.^[4] According to acharya Vagbhat, sleep is produced by the accustomed time (nights), effect of diseases, fatigue of the mind and body, increase of kapha; external factors and dominance of tamoguna.^[5]

Importance of proper sleep

Ayurveda considers sleep as the most important component of our physiology. It is one of the three supporting subpillars (*upstambha*) as mentioned in Ayurveda, the other two being *aahara* and *brahmacharya*. The inclusion of *Nidra* in the three *Upastambha* itself proves its importance.

Happiness, misery, nourishment, emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life and death – all these occurs depending on the proper and improper sleep. ^[6] The same sleep, if properly enjoyed brings about happiness and longevity in human beings as the real knowledge brings about *siddhi* in a *yogi*. ^[7] Like proper diet, proper sleep is also essential for maintenance of the body. Corpulence and emaciation are specially conditioned by proper or improper sleep and diet. ^[8]

According to modern physiology, sleep is needed to maintain metabolic caloric balance, thermal equilibrium and immune competence. Sleep is necessary for learning and memory consolidation. ^[9] Not only the proper hours of sleep are important, but also the good quality of sleep fulfils the healthy body needs. Nowadays poor quality of sleep is a great factor for cause and progression of various diseases predominantly including lifestyle disorders.

For maintenance of proper health, an adequate amount of sleep is needed in suitable time. Mere the count of hours does not contribute to a healthy sleep, it also depends on the timing of sleep. In our samhitas day sleep is contraindicated except in summer (*grishmaritu*). Persons with excessive fat, those who are addicted to taking unctuous substance, those with *shlaishmika* constitution, those suffering from disease due the vitiation of *kapha* and those suffering from *dushivisha* should never sleep during the day time. ^[10]

The vast dimension of sleep can be understood by the fact that *nidra*is considered significantly in all the aspects of *nidan panchak* i.e. *nidana, purvarupa, rupa, upshaya* and *samprapti*. Various form of sleep is described in respect to different disorders, the common thing being the unhealthy pattern of sleep. It may be in form of improper timing, excessive sleep, diminished sleep, cessation of sleep etc. Role of sleep in *nidana panchak* of few disorders is as follows: -

Improper Sleep as *nidana* (aetiology) of disease: -

Kaphajhridaya rog	nidrasukham (excessive sleep)	
Krishata	nidravegavinigraha (suppression of urge	
	for sleep)	
Prameha	Swapna sukha(excessive sleep).	
Kushtha	Nidra cha bhajatamdiwa (sleep during day	
	time)	

Disease caused due to day sleep: -

If one violates the prescription regarding sleep during the day time, he would subject himself to halimaka (serious type of jaundice), headache, timidness. heaviness of body, malaise, loss of digestive power, hridyoplepa (a feeling as if phlegm adhered to the heart), oedema, anorexia, nausea, rhinitis, hemicrania, urticaria. eruption, abscess, pruritus, drowsiness, coughing, diseases of the throat, impairment of the memory and intelligence, obstruction of the circulating channels of the body, fever, weakness of sensory and motor organ and enhancement of toxic effects of artificial poisons.^[11]

Sleep during the day time (before the restoration of normal health after purificatory therapy) produces complications as follows: ^[12]

- Anorexia, indigestion and suppression of the power of digestion
- *Staimitya* (feeling as if body is covered with wet leather)
- Anaemia, itching, scabies, burning sensation, vomiting and malaise
- Impairment of cardiac function, stiffness, drowsiness and continuous sleep
- Appearance of nodules
- Weakness, red colouration of urine and eyes
- Coating over palate

Day sleep is the outcome of perverted nature and all the *doshas* of the body are aggravated by a sleep in the day, bringing on many troublesome complaints such as cough, asthma, catarrh, heaviness of the body, aching or lassitude of limbs, fever, loss of appetite etc. Being awake for late hours in the night develops symptoms (*upadrava*) which are similar to the deranged *vayu* and *pitta*.

Improper Sleep as *purvarupa* (prodromal symptom) of disease: -

Jwara	<i>Nidraadhikya</i> (excessive sleep) or <i>jagaran</i> (sleeplessness)	
Prameha	<i>Nidra, tandra</i> (excessive sleep and continuous drowsiness)	
Urustambha	Nidraati(excessive sleep)	

Samprapti :-

Vata Pradhan madatyaya – If a person excessively emaciated because of indulgence in women, grief, fear, carrying heavy load, walking long distance and other strenuous activities, while eating unctuous food, limited quantity of food, drinking alcohol which is excessively fermented, at night, then this leads to the impairment of his sleep, and *vatika madatyaya* (alcoholism) instantaneously.^[13]

Improper Sleep asrupa(symptom) of disease: -		
Sleshmajajwara	Nidraaadhikya (excessive sleep)	
Sannipatajajwara	Nidranaasha(loss of sleep)	
Raktaja and kaphajgulma	Nidra(excessive sleep)	
Arishta	Nidranityabhavatinava(person either sleep always or does not get sleep at all)	
Kaphajunmada	Atinidra(excessive sleep)	
Pittabhirunmatta (a type of insanity)	Nidralu(feels sleepy)	
Kapahajsotha	Nidra(excessive sleep)	
Kapahajudarrog	Nidra(excessive sleep)	
Pandu	Nidralu(feels sleepy)	
Shwasa	Na nidralabhate(does not get sleep)	
Kapahajatisara	Nidra(excessive sleep)	
Kapahajvaman	Tandra, nidra(drowsiness and excessive sleep)	
Kapahajvisarpa	Nidra, tandra(excessive sleep and drowsiness)	
Agni visarpa	Nidranasha(insomnia), klistabhuyistacahaashunidrambhajati(being afflicted with miseries, he	
	gets sleep quickly)	
Kardamavisarpa	Nidra, tandra (sleep, drowsiness)	
Granthivisarpa	Nidra(excessive sleep)	
Vatajatrishna	Nidranaasha(insomnia)	
Jangamvisha (animal poisoning)	Nidra, tandra(excessive sleep, drowsiness)	
Mandukavisha (frog poisoning)	Nidra(excessive sleep)	
Excessive intake of Madya	Nidra(excessive sleep)	
Pratham madaavastha	Sukhanidraprabodha(sound sleep and post waking feeling of freshness)	
Dhwansak	Tandra nidraati yoga (excessive sleep and drowsiness)	
Vaman, virechanatiyoga	Nidranasha (insomnia)	
Annavritaanuvasanvasti	Nidraaadhikya (excessive sleep)	

Improper Sleep as*rupa*(symptom) of disease: -

Sleep as upashaya[treatment]

After niruhabasti	Nidramupasita (patient should sleep comfortably)
Vaspavegavidharan chikitsa (treatment of suppression of tear reflex)	Swapna (sleep)
Nidravegavidharan chikitsa (treatment of suppression of sleep urge)	Swapna samvahan (sound sleep and massage of body)

Sleep duration according to age: -

Modern science also considers proper sleep in adequate amount to be healthy. Recommended sleep duration ranges, expressed as hours of sleep per day are as follows: ^[14]

I	14-17 hours	For newborns	
ſ	12-15 hours	for infants	
I	11-14 hours	for toddlers	
	10-13 hours	for preschoolers	
	9-11 hours	for school-aged children	
ſ	8-10 hours	for teenagers	
	7-9 hours	for young adults and adults	
	7-8 hours	for older adults	

Indication of day sleep: -

Sleep during the day time in all seasons is prescribed for those who are exhausted by singing, study, alcoholic drinks, sexual acts, elimination therapy, carrying heavy weight, walking long distance; those suffering from phthisis, diarrhoea, colic pain, wasting, thirst, dyspnoea, hiccup, insanity, those who are too old, too young, weak and emaciated; those injured by fall and assault, those exhausted by journey by a vehicle, vigil, anger, grief and fear, and those who are accustomed to day sleep. By this equilibrium of dhatus and strength are maintained and the kapha nourishes the organs and ensures longevity.^[15]

Contraindications of day sleep: -

Sleeping during the day time in the seasons other than summer is not advisable as it causes vitiation of *kapha* and *pitta*. Persons with excessive fat, those who are addicted to taking unctuous substance, those with *slaismika* constitution, those suffering from disease due to vitiation of *kapha* and those suffering for *dushivisha* (artificial poisoning) should never sleep during day time. ^[10]

DISCUSSION

Sleep is the most important aspect of one's life. It covers the physical, mental and spiritual attributes of life. As mentioned above, loss of proper sleep can lead to emaciation and excessive sleep leads to obesity. Improper sleep affects physical appearance of an individual. There are various mental health issues arising as a result of insufficient sleep and vice versa sleep is disturbed due to psychological trauma also. A spiritually healthy person can fulfil his sleep requirement in minimal time period when compared to general nonspiritual person. This has been mentioned as *yognidra* in texts.

While describing the equilibrium of dhatus, acharya Charak mention its examination by the features like normal sleep at appropriate time, non-appearance of abnormal dreams and awakening with happiness etc. ^[16]

There is a need to focus on etiological, pathological and therapeutic domains of sleep. Sleep is not merely a daily routine process, but instead it occupies a major area for the maintenance of a healthy and happy life. The proper way and timing of sleep is very precisely mentioned in our *samhitas* according to the constitution of the person, various seasons and also in some particular conditions.

The healthy person should get up (from bed) during brahma muhurta, to sustain his life. According to Hemadri, brahma muhurta is the last part of night just prior to sunrise.^[17] This is the ideal sleeping habit said by acharyas. To rise early, it is required to sleep early. But this pattern of sleep is vanished somewhere in present day scenario. Unhealthy sleeping habits lead to various mental and physical disorders. Nowadays healthy sleep is highly compromised due to improper use of technologies and social media, extra working hours, night shift, professional and personal stress etc. People consider sleep just as a daily routine that should be fulfilled anyhow by number of hours. But this is not at all a healthy way of sleep. Sleep wake cycle is generated by circadian process which normally occurs at specific phase relative to external cycle of night exposure. Noble prize winners on circadian rhythm, 2017 quoted that "with exquisite precision, our inner clock adapts our physiology to the dramatically different phases of day. The clock regulates critical functions such as behaviour, hormone levels, sleep, body temperature and metabolism". Hence there must be a proper time and amount of sleep.

Alina pathke, research scholar at Rockefeller University and lead author on the night owl study conducted at young's lab stated that "There are definitely correlations between the late sleep pattern and a variety of secondary disease, not all of which we understand."

Nowadays metabolic disorders are covering a vast range of public health, obesity and diabetes being on the top list. Years ago, our Acharyas has described sleep and diet to be the main cause of obesity and emaciation. Hence, proper diet as well as proper sleep is essential for the maintenance of body.^[18]

CONCLUSION

One should not sleep in the day nor keep late hours in the night. Having known both these acts to be injurious, the wise should observe moderation in sleep. A conventionality to this rule of conduct is rewarded with health, good humour, strength, healthful complexion, virility and beauty, with a frame which is neither too fat nor too thin, wealthy and a long life. ^[19]

A quote from William C Dement, the father of modern sleep medicine. "After all the research I have done on sleep problems over the past four decades, my most significant finding is that, ignorance is the worst sleep disorder of them all. Both doctors and general public know almost nothing about the vast advancement in sleep medicine and sleep physiology". ^[20]

As we have seen above, sleep plays multiple role of being the aetiological factor of disease, prodromal symptom, pathology, presenting symptom and even as treatment factor in some disorders. Sleep medicine can be thought of as one of the oblivious fields when considered from the general public awareness side. Common public keeps on ignoring the importance of a healthy and happy sleep and also keeps on avoiding the unhealthy changes in sleep pattern which may forecast some major illness. Thus, significance of a healthy sleep must be engrossed if we want complete disease free health of the mankind.

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