

A REVIEW ON AYURVEDA MANAGEMENT OF SOMNAMBULISM IN CHILDREN

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ABSTRACT

Sleep is a condition of body and mind which typically recurs for several hours every night, in which nervous system become inactive, eyes closed, the postural muscles relaxed and consciousness practically suspended. Sleep plays a vital role in good health and well being throughout the life. In *Ayurveda* literature, *Nidra* is mentioned one among three pillars of life which plays an important role in maintaining health, proficiency and emotional well-being. Sleep disorders are problem with sleeping including trouble in falling or staying asleep, falling asleep at wrong time or place or abnormal behaviour during sleep like talking or walking in sleep. Sleep walking is a sleep disorder belonging to Parasomnia family. Sleepwalker arise from the slow wave sleep stage in a stage of low consciousness and perform activities that are usually performed during a state of full consciousness. These activity can be as benign as sitting up in bed, walking to bathroom or as hazardous as running, violent gestures, grabbing at hallucinated objects or even homicides. According to national sleep foundation, benzodiazepines like Clonazepam reduces the episodes but the recurrence of episodes demands an alternative approach of medicine. There is no direct reference for sleep walking in *Ayurveda* but the treatment of insomnia can be given to children suffering with somnambulism in order to reduce the episodes of sleep walking and to improve the quality of sleep.

Keywords: *Nidra*, *Swapna*, *Trayopastambha*, *indiyas*, *mana*, *Peeyush*, *morata*, *kilata*, *koorchika*, *pishtanna*, *manahasukham*, *manoanukulavishaya*.

Physiology of sleep: *Nidra* is one among the *Trayopastambha*, without which maintaining health is impossible. Physical and mental fatigue are the main cause of sleep. Child falls asleep when the mind and sense organs can't conjugate with their objects due to exhaustion. *Acharya charaka* has stated that happiness and sorrow, growth and wasting, strength and weakness, virility and impotence, knowledge and ignorance as well as existence and cessation of life depends on *nidra*.¹ Different types of *nidra* are explained in classics of which *nidra* which comes in night is said to be normal and nourishing in nature hence it is called as *Bhutadhatri*.²

Vitiation of *sharirika* and *manasika doshas* leads to sleep disorders, Such diseases are explained in *Ayurvedic* classics along with their treatment but there is no direct reference of somnambulism in *ayurveda*. The symptoms shows that it is caused due to inappropriate sleep and child walks and talk during the episodes. In such cases, management of insomnia like *vatahara* treatment, mental relaxation gives good results.

Causative factors of Somnambulism

Sleep deprivation, fatigue, stress, depression, anxiety, irregular sleep schedule can cause the somnambulism. Apart from this GERD, migraine,

hyperthyroidism are responsible for somnambulism.³

Samanya hetu of *nidra roga* described in classics are

Psychological causes like fear, anxiety, anger, sorrow, greed, joy, agitation etc. can affect the normal pattern of sleep and cause sleep disorders like somnambulism. dietary consumption of food capable of aggravating *vata* and *pitta*, *dhatukshaya* (wasting of *dhatu*), *upavasa* (fasting) vitiate the *sharirika* and *manasika dosha* produces *nidra roga* in children. Apart from this unwholesome regimen like watching television and playing video games close to bedtime can affect the child mental status which affects the normal sleep at night.

Pathogenesis⁴

Mind plays an important role in pathogenesis of sleep. *Tamo guna* helps in production of sleep. It is associated with *kapha dosha*. Whenever mind gets disturbed due to any thought it increases *rajo guna* which closely resembles with the *vata dosha*. Vitiating *manasika dosha* (increased *rajo guna*) and *sharirika guna* (increased *vata dosha*) diminish the effect of *tamo guna* which ultimately causes sleep disorders.

Clinical features⁵

- Child walks during sleep.
- Walking and talking may take place at same time and child will not respond to commands during episodes.
- Amnesia following an episode.
- The range of episodes can be as simple as just sitting up in the bed or walking about the room to the episodes where the child runs and screams.
- In some sleep walking cases, the child may urinate in an inappropriate place.

- The child may use words that would not be used when awake
- The child may fall and injure themselves.
- Child will be disoriented or confused for a short time after being awakened.
- Episodes of Somnambulism make the child ashamed in family and society and causes adverse mental impact.

Treatment of Somnambulism

Nidra is a state in which all the *indriyas* and *mana* lose their conscious activity

While *Swapna* is the state of mind in which all *indriyas* lose their conscious activities but the mind is not withdrawn from illusionary experiences. In *swapna-awsatha*, mind is in active stage which experiences self-created events. Symptoms of sleep talking and walking clearly show that sense organs of child lose their conscious activities but mind is in active state and it is experiencing the incidents which had happened during conscious stage.

Stress, anxiety, phobia, depression increases *rajo guna* which closely resembles with *vata dosha*. Whenever mind gets disturbed due to any thought, it increases *rajo guna* which closely resembles with the *vata dosha* hence increase in *rajo guna* and *vata dosha* and diminish the effect of *tamo guna*, ultimately leading to insomnia and problems like sleep talking and walking. Treatment of *anidra* should be given to improve the quality of sleep. When the equilibrium between *sharirika* and *manasika dosha* will be maintained, child will get the sound sleep and the problems like walking and talking in sleep will automatically get cured.

The line of treatment described for *anidra* in different *samhita* is almost similar. It

indicates mental relaxation is prime need along with *vatahara* treatment for management of insomnia .Whole management has been described in the form of specific procedures psychiatric treatment ,drug and diet as follow

Specific procedures

Abhyanga – body massage with *ksheerabala taila* , *bala taila* , *vacha taila*

Utsadana –anointing paste of medicines on scalp.

Chakshu tarpana –soothing drops on eye eg. *Goghrita*

Shirolepa – application of paste on head eg. *Chandana* ,*tagara* ,*ushira* ,*jatiphala*.

Shirobasti- oil is made to stand over scalp for prescribed time

Shirodhara – oil dropping on head

Karnapurana – instillation of *vataghna* oil in ear

Padabyanga – foot massage with *ksheerabala taila*

Snana and *samhanana*

Psychiatric treatment

Pleasant smell ,sound ,touch

Psychic pleasure

Sense of satisfaction

Thinking about the things which relax mind and fulfilment of desires

Comfortable bed and home with proper hygiene

Herbs and sleep

Table1:shows the herbs with proven sedative activity in various researches conducted earlier.Herbs with proven sedative activity

Sr. No.	Latin name	Chemical constituent
1.	<i>Acorus calamus</i> Linn [6,7]	Asarone and β -asarone, Acorus oil,
2.	<i>Aglaia diepenhorstii</i> Miq [7]	Essential oil from the root bark
3.	<i>Alstonia scholaris</i> Linn [8]	Pricinine, the major alkaloid of the flowers
4.	<i>Anacardium occidentale</i> Linn [8]	Essential oil of the plant
5.	<i>Areca catechu</i> Linn [9,11]	Arecoline
6.	<i>Artabotrys hexapetalus</i> [12]	Essential oil from the laves
7.	<i>Artemisia capillaries</i> [9]	Scoparone
8.	<i>Azadirachta indica</i> [13]	Dried material and filter paper material
9.	<i>Bacopa monnieri</i> Linn [14]	Alcoholic extract Plant extract
10.	<i>Boswellia serrata</i> Roxb [15]	Non phenolic fraction of gum resin
11.	<i>Calophyllum inophyllum</i> Linn [16]	Xanthones
12.	<i>Cannabis sativa</i> Linn [17]	Crude ethanolic and petroleum ether fraction
13.	<i>Canscora decussata</i> Roxb [16]	Mangiferin
14.	<i>Catharanthus roseus</i> Linn [16]	Alkaloids & chloroform fraction of root & bark
15.	<i>Carvia callosa</i> (Nees) Bremek [16]	Ethanolic extract of the plant
16.	<i>Cassia fistula</i> Linn [16]	Methanol extract of the seeds
17.	<i>Cedrus deodara</i> Roxb [16]	Wood essential oil
18.	<i>Celastrus paniculatus</i> Willd [16]	Crude seed oil, brahmoside and brahminoside
19.	<i>Centella asiatica</i> Linn [18]	Alcoholic extract
20.	<i>Cissus repens</i> Lamk [19]	Ethanolic extract of the plan
21.	<i>Clerodendrum phlomidis</i> Linn [20]	Methanolic extract of leaves

22.	<i>Convolvulus prostrates</i> Forssk [20]	Alcoholic extracts of the whole plant
23.	<i>Clitoria ternatea</i> Linn [20]	Alcoholic extract stem, flowers, leaves & fruit
24.	<i>Cymbopogon citratus</i> Stapf [21]	Essential oil from the leaves
25.	<i>Cyperus rotundus</i> Linn [21]	Alcoholic extract of tubers
26.	<i>Derris indica</i> Lamk [22]	Pongamol
27.	<i>Delphinium denudatum</i> Wall [22]	Aqueous extract of root
28.	<i>Diploknema butyracea</i> Roxb [22]	Ethanollic extract of the seeds
29.	<i>Erithrina indica</i> Lam [23]	Methanolic extract of the leaves
30.	<i>Nardostachys jatamansi</i> DC [24,25]	Jatamansone, sesquiterpene, valeranone
31.	<i>Nelumbo nucifera</i> Gaertn [25]	Methanolic extract of rhizomes
32.	<i>Valeriana Jatamansi</i> Jones [25]	Linarin, 6-methylapigenin, and hesperidin
33.	<i>Withania somnifera</i> Linn.[24]	Ethanollic extract of roots
34.	<i>Papaver somniferum</i> Linn [26]	Morphine
35.	<i>Piper nigrum</i> Linn [27]	Ethanollic extract
36.	<i>Myristica fragrans</i> Houtt [28]	Acetone soluble part of n-hexane extract
37.	<i>Rauvolfia serpentina</i> [29]	Reserpine, Rescinnamine

Diet

- *Gramya-anupa-udaka mamsarasa.*
- *Shali* rice with curd or milk .
- *Mahisha ksheera.*
- *Peeyush morata kilata koorchika*(milk product)
- *Pishtanna*(dough preparation)
- *Ikshu* (sugar cane)
- *Draksha*(grapes)
- *Varahamamsa*(meat of boar)
- *Guda*
- *Matsya*
- *Dadhi*
- *Masha*
- *Sita*(sugar)
- *Yusha*(pulses soup)
- *Sneha* (fat)

DISCUSSION: Sleep disorders in children are common but under -reported , their diagnosis require high index of suspicion .Sleep disorders ranges from insomnia to sleep walking in children . Sleep disorders like sleep walking and talking causes considerable anxiety in children. Recurrence of episodes leads to

phobia and depression in child. Phobia due to sleep walking and depression indirectly aggravates the pathophysiology by affecting *sharirika* and *mansika doshas* . Changed life style such as watching television close to bedtime , playing video games and mobile upto midnight , continuously using laptop and internet before going to bed are the causes of insomnia .Sleep walking is a complex series of events happen during the stage of low sleep waves when child's mind is not completely calm down and experiencing the past experiences .Ancient literatures have explained management in the form of specific procedure , psychiatric treatment ,drugs and diet for *manasika vikaras* . Following the *ritucharya* and *dinacharya* would be the helpful in preventing the recurrence of episodes after management.Avoiding the excessive stress and treatment of underlying diseases will also be beneficial.

CONCLUSION:

- *Ahara , Nidra* and *Bramhacharya* are *Trayoupastambha* of life. For ensuring

the growth and development in *Balyawastha*, following the *Yogya- ahara* and *nidra* is essential. It is reported that due to change in lifestyle and increased stress in children disorder related to sleep are seen .Somnambulism has been considered as a psychosomatic disorder by ancient *aacharya* in which psyche and *vata* is aggravated. Avoidance of causative factors , relaxation techniques along with other therapies is mainstay of treatment for somnambulism in children. In view of this , *manaha-sukham* (happiness of mind) , *manoanukula-vishaya* (objects which pleasant to mind) are mentioned in management of sleeplessness which are indicative of psychic management. *Ayurveda* not only emphasize on herbal formulation but also on specific procedure like *Abhangya* ,*Utsadana* ,*Shirodhara* while treating sleep disorders. Dietary regimen alleviates the vitiated *doshas*. Specific procedures and herbal formulation directly act on disease pathology. Proper combination of these three parts of treatment ultimately cures disease. Symptoms like sleep walking and talking are relieved by counselling and following the treatment principle of *anidra*. *Ayurveda* has explained safe and effective treatment for sleep disorder ,by following these treatment sleep disorder in children can easily rooted up.

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