

## **RELATION OF AHARA AND NIDRA: A LITERARY REVIEW**

**Khajuria Narind<sup>1</sup>, Dadhich Om Prakash<sup>2</sup>, Arora Shivani<sup>3</sup>**

<sup>1</sup>PhD Scholar, <sup>2</sup>Professor & HoD, <sup>3</sup>MD (Ayu).

PG Dept of Sharira Kriya, National Institute of Ayurveda, Jaipur, Rajasthan, India

**Email:** [khajuria.narin@gmail.com](mailto:khajuria.narin@gmail.com)

### **ABSTRACT**

Food is the source of bio-chemical energy that keeps the human body running continuously. Any discrepancy in the daily intake of food has a deteriorative effect on our body. Similarly, sleep is also needed in adequate amounts to rejuvenate the body. Proper sleep nourishes the body and provides the brain its much needed rest. Both *Ahara* and *Nidra* have been praised in Ayurveda as among the two pillars of the *Tryaopstambha* which help to lead a normal & healthy life. But is it possible that the various food stuffs we take have an effect on the sleep we get? What *Ayurvedic* classics have to say about it? **Material and Methods:** *Ayurvedic* classical texts and contemporary modern science were thoroughly researched for the references regarding this article. **Result & Conclusion:** The foods we take have a profound effect on the sleep we get. Amongst the *agrya* for sleep, various food articles have been listed by the *Acharya*. Along with this, foods have been listed as *swapna janaka hetu*. It was observed that foods having *Shleshma* increasing property and *Vata Shamaka* properties are best suited for promoting sleep. Also, incorporating foods rich in Tryptophan and Melatonin in our diet helps to achieve sleep naturally.

**Keywords:** *Ahara, Nidra, Sleshmakara*, Biological clock, Melatonin, Tryptophan

### **INTRODUCTION**

Sleep is an integral part of one's daily routine. Sleep is not the loss of consciousness but it is the transition from wakefulness to its loss. Benefits of sleep are numerous, having been praised in Modern Science as well as in *Ayurveda*. Food is the source of energy which keeps us energized so that we could do our daily work. One cannot think to survive without sleep and food;

and thus these form the two very important pillars of human life.

#### **Conceptual Review:**

In *Ayurveda* food items have been classified into various *Varga* depending upon different criteria<sup>1</sup>. One must wonder here whether any relation of various food items to sleep has been mentioned in *Ayurvedic* classics or not? A critical

review of the classics shows that many food items [eatables & drinkables] have been said to have a direct and profound effect on *Nidra*. Following description will help to make this point much clearer in understanding:

[A] Vegetarian food items:

1] *Antariksha Jala*:

It is said to be *Pathyatama* and also it is having the property of doing the *Prashama* of *Tandra* and *Nidra*. *Antriksha Jala* performs many other functions like maintaining life, does nourishment of tissues, provides relief from *Shrama*, *Klama*, *Pipasa*, *Daha* etc along with doing the *Prashamana* of both *Nidra* and *Tandra*. Here *Prashama* of that *Nidra* is told which is caused by *Kapha & Vata*. The *Prashama* here is done by *Sparsha* of *Antriksha Jala*. But when it comes to natural sleep *Antriksha Jala* intake helps in begetting the *Swabhavika Nidra*<sup>2</sup>.

2] *Kshira*:

Milk is beneficial for all the living beings because of being *Jatisatmya*. Milk is having many qualities like *Balya*, *Vrishya*, *Medhya*, *Rasayana*, *Ojo Vardhana* etc. *Mahisha Kshira* is said to be *Mahabhishyandi*, more *Snigdha* than cow's milk and it is *Nidrakara*. This specific effect of milk on *Nidra* is found mentioned only for *Mahisha Kshira*<sup>3</sup>. Again *Kshira* has been mentioned as *Nidrajanaka* without specifying any particular milk<sup>4</sup>. Thus, it can be said that all types of milk are having the property of inducing sleep, but this quality is more so inherent in buffalo's milk.

*Mahisha Kshira* is beneficial for those who are having trouble sleeping. It is also *Gurutara* than cow's milk<sup>5</sup>. *Ashtanga Samgrahakara* also shares the same opinion<sup>6</sup>. Thus, *Mahisha Kshira* is *Gurutara*, *Mahasnigdha* and beneficial for those having difficulty getting sleep<sup>7</sup>.

*Ravigupta* in *Siddhasara* says that *Mahisha Kshira* is *Swapnala* – induces sleep<sup>8</sup>.

*Kharanada* says that *Mahisha Kshira* is more *Swapnala* than cow's milk<sup>8</sup>. This brings to notice one more point that even cow's milk induces sleep but compared to it *Mahisha Kshira* is having more *Guru Guna* and thus it is more *Swpanala* (sleep inducing).

*Vagbhata* mentions that the person who is having insomnia or is having difficulty in getting sleep at a proper time should make use of *kshira*<sup>9</sup>. This shows that *Kshira* is having the property of inducing sleep. Also, *Charaka*, while describing *Swapna Janaka Hetus*, mentions the use of *Kshira*<sup>10</sup>. This also proves the sleep inducing property of *Kshira*.

3] *Dadhi*:

*Dadhi* also has qualities like *Guru*, *Abhishyandi*, *Kapha Vardhaka*<sup>11</sup>. The person who is having difficulty in getting sleep at a proper time should make use of *Dadhi*<sup>9</sup> [as eatable]. This shows that *Dadhi* is having the property of inducing sleep. *Charaka* while describing *Swapna Janak Hetus* mentions the use of *Shali Anna* with *Dadhi*<sup>10</sup>. This also proves the sleep inducing property of *Dadhi*.

*Vagbhata* also mentions that various substances/products made from *Dadhi* like *Kurchika*, *Kilata* etc also promote *Nidra*<sup>9</sup>.

4] *Madhya*:

By the virtue of having various qualities the *Madhya* upon reaching *Hrudaya* causes *Vikshobha* of *Indriyas* [organs of sensory perception] and *Mana*; and hence produces a feeling of *Mada / Harsha*. Different *Satva* persons get differently affected by *Madhya*. In *Satvika* and *Rajas* persons *Madhya* intake does not produce *Nidra*. But when a *Tamasika* person takes *Madhya*, it produces *Nidra* in such a person<sup>2</sup>.

*Acharya Charaka* has not referred to *Nidra* causing effect of *Madhya*<sup>12</sup>.

*Vagbhata* says that *Madhya* is having qualities like *Deepana*, *Rochana*, *Tikshana*, *Ushna*. When *Madhya* is taken following proper methods ascribed by *Ayurveda* it is a giver of many benefits like *Tushti* and *Pushti*; but when it is taken by showing a blithe disregard for ascribed rituals it becomes *Visha Tulya*<sup>5</sup>.

*Vagbhata* also brings to notice a very interesting property of *Madhya*. *Madhya* is beneficial for those persons who are having *Nashta Nidra* as well in those also who are having *Atinidra* i.e. *Madhya* is beneficial for both. Making this point clear *Aruna Dutta* commenting in the above verse says that *Madhya* is having this property because of its *Prabhava*. He further brings to light the opinion of other scholars regarding this: there are two types of *Madhya*: one which causes *Shleshma Vardhana* and the other which are *Shleshma hara*. Those *Madhya* which cause *Shleshma Vardhana* are responsible for inducing sleep; while those *Madhya* which are *Shleshma hara* are beneficial in persons having *Atinidra*<sup>5</sup>.

*Hemadri* puts a question as to how it is possible that the same *Madhya* is having the property of inducing sleep as well as causing less sleep. Clarifying, he states that *Pravridha Vata* is responsible for *Nashta Nidra*, in such a state the *Madhya* wins over *Vata* and induces sleep. On the other hand *Pravridha Shleshma* is responsible for *Atinidra*, in such a state the *Madhya* causes *Shleshma Kshapana* and hence reduces excess sleep<sup>5</sup>.

This explains the sleep inducing effect of *Madhya*.

5] *Godhuma*:

It is *Guru*, *Madhura*, *Snigdha*, *Balya*, and *Shleshmakara*; thus can be said to be promoting

sleep. *Dalhana* clarifies that only *Nava Godhuma* is *Shleshmakara*, but the *Purana Godhuma* is not *Shleshmakara* and hence can be used in *Vasant Ritu* also<sup>2</sup>. *Vagbhata* says that it is *Guru*, *Madhura* and *Vata Pitta Hara*<sup>14</sup>.

6] *Krishra*:

It said to be *kapha pitta kara* and *anila nashini*<sup>2</sup>.

7] *Tila vikriti & pallala*:

The items made from *tila* [*modaka*] and also after addition of *guda* to *tila* [*pallala*] are said to be *shleshma janaka*<sup>2</sup>.

8] *Gaudika bhakshya*:

Those eatables which are prepared from *guda* are said to be *guru*, *vatahara* and *shleshma vardhaka*, so these might be playing a role in promoting sleep<sup>2</sup>.

9] *Ikshu varga*:

*Charaka* opines that the products of *ikshu* are *shleshmala* and *madhura – snigdha*<sup>7</sup>; they are also said to be *guru*, *brimhankara* and *swadu* in *paka* and *rasa*<sup>9</sup>; so these can also be said to having an effect on the promotion of sleep.

10] *Sneha*:

*Sneha* has been mentioned as one amongst the *swapna janaka hetus*<sup>10</sup>. Also, *Ghrta* is told as having *vatahara* property, *madhura* in *rasa* and *paka* and is responsible for *kapha – meda* increase<sup>7</sup>.

[B] Non-vegetarian food items:

1] *Kukkuta mamsa*:

It is *vatahara*, *snigdha* and *guru*, so, can be taken as promoter of sleep<sup>2</sup>.

2] *Gramya mamsa*:

All the *gramya mamsa* like *ashva*, *go*, *basta*, *mesha* are *vatahara*, *bramhanakara*, *kapha pitta kara* and *madhura* in *rasa* and *paka*. Owing to these properties these can be taken as the promoters of sleep. *Vagbhata* says that *gramya mamsa* is *shleshmala* and *guru*<sup>14</sup>.

3] *Mahisha mamsa*:

It is *snigdha*, *guru*, *tarpanakara* and is directly mentioned as having the property of *nidrakara*<sup>2</sup>. *Vagbhata* says that *mahisha mamsa* is *guru* and produces sleep<sup>14</sup>. *Charaka* also opines the same<sup>7</sup>.

4] *Varaha mamsa*:

*Vagbhata* says that *varaha mamsa* is having the same qualities as that of *mahisha mamsa* and it is *shramahara* also<sup>14</sup>.

5] *Matasya*:

*Matasya* are of two types: *nadeya* and *samudra*. Among the *nadeya matasya*, *pathina* type of fish is *shleshmala*, and *vrishtya*, thus, can be taken as promoter of sleep. The *samudra* type of *matasya* are said to be *guru*, *vatahara* and *shleshmavardhaka*, so these can also be said of having a sleep promoting effect<sup>2</sup>. According to *Vagbhata*, *matasya* are *param kaphakara*<sup>14</sup>. *Vridha Vagbhata* states them to be *vatahara* also<sup>15</sup>.

#### Modern views:

All this said and written about foods and sleep, one might wonder about the mechanism - how food is affecting our sleep?

The growing talk of the town is about the amino acid tryptophan and the role it might be playing in getting a good sleep. Tryptophan is a routine constituent of most protein based foods or dietary products. It is plentiful in oats, dried dates, milk, eggs, yogurt, fish, sesame, banana, peanuts, chicken, beef, wheat flour, white rice, cheese, potatoes & wheat flour (white)<sup>17</sup>.

Tryptophan is needed for normal growth in infants and nitrogen balance in adults. Body uses it to make Niacin and Serotonin. It is also used by the brain to make Melatonin<sup>18</sup>. Serotonin has been thought to produce healthy sleep and a stable mood. Melatonin on the other hand is responsible for maintaining the circadian rhythm of our bodies – the biological clock. Melatonin

released by the Pineal gland has also been known to promote sleep in the human beings<sup>19</sup>.

The presence of carbohydrates in our food, as in a carbohydrate rich meal, makes tryptophan more available for brain; thus allowing brain to convert it into serotonin and melatonin and thus helping in the regulation and promotion of sleep<sup>20</sup>.

Many foods are known to be rich sources of tryptophan and melatonin. A few of them are listed below<sup>21</sup>:

Milk & Cheese, Almonds, Bananas, Cherries, Walnuts, Peanut butter, Figs, White Mustard, Grapes, Turmeric.

All these foods are *Shleshma Vardhaka* and *Vatahara*.

A study conducted by Crispim CA et al at the University Of Sao Paulo, Brazil showed that intake of high carbohydrate foods preceding the sleeping period are associated with higher sleep latency<sup>22</sup>. In addition to the amount of carbohydrates, the glycemic index may have an important influence on sleep patterns, especially in inducing sleepiness<sup>21</sup>.

St-Onge MP et al found that higher intakes of fat were associated with less sleep and subjective napping<sup>23</sup>.

## DISCUSSION

Based on the above opinions, it can be postulated that those *Ahara* which are having the property of increasing *Shleshma* and decreasing *Vata* can be taken as sleep inducers; while those *Ahara* which are *Shleshma hara* can be said to have the property of reducing sleep. This rule is given further credibility by *Vagbhata's* statement that by *Shleshma Kshapana* one can get rid of *Atinidra*<sup>13</sup>. *Aruna Dutta* and *Hemadri* commenting on the above verse state that one of the reasons for *Nidra Nasha* is the *Kshaya* of

*Shleshma Dhatu*<sup>13</sup>. *Vata* has been mentioned as one of the reasons for *Nidranasha*. Also, *Shleshma Samudbhava Nidra* and *Tamobhava Nidra*, which occur by the increase of *Shleshma* and *Tamoguna* respectively, are amongst the 7 types of *Nidra*.<sup>10</sup>

*Swapna janaka hetu: Acharya Charaka* while describing sleep mentions the use of following *ahara dravya* for promoting sleep<sup>10</sup>:

*Gramya mamsa, Audaka mamsa, Anupa mamsa, Shali anna with dadhi, Kshira, Sneha, and Madhya.*

*Acharya Vagbhata* has also given names of *ahara dravya* which can be used in *manda nidra persons*<sup>14</sup>: *Kshira, Madhya, Mamsa rasa, and Dadhi.*

*Agrya for swapna*: While mentioning the best substances for inducing sleep, *Charaka* mentions that *mahishi kshira* is the best. He further states that *pushti* [proper nourishment] is also one of the *agrya for swapna*<sup>16</sup>. A better nourishment state leads to best *rasa Dhatu*. *Rasa Dhatu* is having properties same as that of *Kapha*. Thus, proper nourishment is the foremost requirement for good sleep. All the *ahara dravya* mentioned above promote *pushti* in one way or other thus justifying its *swapnakara* property.

Thus the postulation that *Shleshma Vardhaka* and *Vata Hara Ahara* might be taken as promoters of *Nidra* and the *Ahara* which do *Shleshma Kshapana* might be taken as having an effect on reducing *Atinidra* is fully justified.

## CONCLUSION

From the above discussion it is observed that *Ahara* shapes our sleep in a profound way. Disturbed sleep not only affects daily work but also other bodily functions in a multitude of ways, be it a lack of concentration, fatigue, defects in skin

repair, decreased motor performance etc. Intake of tranquilizers to address disturbed sleep has its own side effects. The need of the time is to address this problem naturally. The choice of our food determines and influences our sleep in a big way. Foods having *Shleshma* increasing property and *Vata Shamaka* properties are the best suited for promoting sleep. Also, incorporating foods rich in Tryptophan and Melatonin in our diet helps to achieve sleep naturally. There is an urgent need to conduct research based on the content above, in both Ayurveda and modern Science, to back it with scientific evidence. Such evidence based research is the need of the time to tackle the issue of disturbed sleep in a healthy way.

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