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# Ayurvedic approach in Drug Induced Insomnia - A Case Study

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## ABSTRACT

Ayurveda is a life science which proclaims the importance of daily necessities like food, sleep, exercise for a healthy life. Sleep or *Nidra* is considered as one among the sub pillars of life (*Thrayopasthamba*). *Nidranasa* or *Anidra* is a state of sleeplessness which is an effect of increased *Vatadosha*. The potential cause of this sleeplessness can be anything like an adverse effect of certain drugs as in this case. In this case study, the patient was having a migraine headache and was under medication continuously for 120 days. After this he gradually developed sleeplessness and he was contracted to a person who was having a sleeping hours of two, even after taking sleeping pills. This shattered his physical as well as mental condition. Ayurvedic treatments planned for this was an integrated approach including internal medicine, external therapies and maintaining suitable environment for his condition. External therapies like *Padabyanga*, *Shirodhara*, *Hapushadi Yapana Vasti* gave a considerable relief. The Insomnia severity index score was 24 while admission and was reduced to 13 after treatments. Safe, effective, systematic approach without any adverse effects gave improvement in quality of life of the patient.

**Key words:** *Anidra*, *Padabyanga*, *Hapushadi Yapana Vasti*, *Insomnia*, *sleeplessness*.

## INTRODUCTION

Ayurveda is a medical science which promotes health in all aspects like physical, mental and even spiritual. Ayurvedic principles are grounded upon the theories of *Panchamahabhuta*, *Tridosha*, *Sapthadathu* etc. Apart from this the concept of *Thrayopasthamba*<sup>[1]</sup> the three sub pillars of life are also significant. *Nidra* (Sleep) is one among the three sub pillars of life.

Proper and undisturbed sleep is irrefutably one of the most needed requirements for a healthy life. *Aacharya Charaka* describes that happiness, misery, nourishment,

emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life and death, everything is depending upon proper sleep.<sup>[2]</sup>

As per this Ayurveda, the sleep which occurs as a result of *Rathri Swabhava* (nature of night) is the best and is considered as *Bhuthadathri*. It nurses all the living beings and supports life as a nursing mother (*Dathri*) does.<sup>[3]</sup> But there are multiple factors which contribute to *Anidra* (sleeplessness). In Ayurveda all those factors yield to the aggravation of *Vata Dosha* which in turn obstruct sleep and induce sleeplessness.<sup>[4]</sup> In a broad aspect we can contemplate that *Anidra* is a result of increased *Vatadosha* along with *Pittadosha* and a depreciation of *Kaphadosha*.

Insomnia is also known as the Disorder of Initiation and/or Maintenance of Sleep (DIMS) which can be difficulty in initiating sleep, difficulty remaining asleep and non-restorative sleep. Nowadays insomnia is very common, with nearly 15-30% of general population complaining of a period of insomnia per year and are necessarily requiring treatment.<sup>[5]</sup>

Insomnia can be a manifestation of diverse causes like physical or mental ailments, substance withdrawal,

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drug induced or cumulative effect of a group of medicines etc. Substance/medication-induced sleep disorder is a condition characterized by disturbances in sleep patterns or quality, resulting from the use or abuse of medications, illicit drugs, or alcohol. Legitimate use of tranquillisers is an indisputable option in treating insomnia but may experience deceleration in positive symptoms on withdrawal or may end up in adverse effects.

This case was unique by itself since the insomnia was due to an additive effect of certain drugs which were given for migraine headaches. Migraine is a recurrent neurovascular disorder involving several pathophysiological mechanisms.<sup>[6]</sup> The pathophysiology involved in these types of headaches are still under scrutiny. A wide range of medicines falling under assuaging the symptoms will be used on account of this. This situation may fall into various sleep problems as migraine prophylaxis and sleep is a complex which is interconnected with one another.

Felicitous Ayurvedic treatments of *Anidra* can be effective for insomnia and can give considerable relief. Even the eradication of the root cause of insomnia can be benefited from Ayurveda. The possible internal and external therapies to establish the equilibrium of increase in *Vata-Pitta Dosh*a and decrease in *Kapha Dosh*a can be adopted in cases of *Anidra*. Here the patient was addressed with various external and internal therapies like *Padabyanga*, *Siroabyanga* etc.

### Patient Information

A 33-year-old male patient came to OPD with complaints of reduced sleep for 6 months. He was having a migraine headache and was usually present once a month. He took allopathic medications for this since his headache was affecting his day to day life. He took medications for 120 days continuously and the frequency of headache reduced. But he noticed a reduction in sleep after the intake of these medicines and began to take sleeping pills (sedative hypnotics and benzodiazepines). Even though he was hardly having 2 hours of sleep at night. He was neither having sleep during day time nor felt drowsy. His mental condition started to deteriorate thinking of his sleeplessness and he came to our OPD for its

management. We got him admitted and started IPD management.

### Clinical findings

#### Systemic examination:

Respiratory, cardiovascular and central nervous system functions were under normal limits. Reflexes were normal.

### Diagnostic Assessment

The diagnosis was done using proper history taking and using the assessment tool - Insomnia Severity Index. Insomnia is a prevalent health complaint that is often difficult to evaluate reliably. Insomnia Severity Index (ISI) is a brief screening measure of insomnia and is an outcome measure in treatment research<sup>[7]</sup>

### Therapeutic Intervention

The major treatment principle which was adopted in this case was to mitigate *Vata Dosh*a and the *Rukshatha* thus formed. *Aacharyas* have mentioned various treatment modalities and modification of diet which will help *Anidra*. It includes *Abhyanga*, *Samvahana*, *Siro Lepa*, intake of milk etc.

The treatment plan adopted was as follows:

#### A. Internal medicines

Table 1: Internal medicines

From 02.05.2024		
Name of medicine	Dosage	Time of administration
<i>Chandanasavam</i>	30mL	Thrice daily, before food
<i>Manasamitram Vatakam</i>	0-0-2, with milk	After food
<i>Shankupushpi Churna</i>	10g with hot milk	At night, after food

#### B. External therapies

Table 2: External therapies

Starting date of therapy	Procedure	Medicine used	Number of days of the procedure
02.05.2024	<i>Thalam</i>	<i>Kachooradi Churna with Ksheerabala Taila</i>	32 days

02.05.2024	<i>Padabyanga</i>	<i>Danwantharam Kuzhamb</i>	31 days
02.05.2024	<i>Udwarthanam</i> followed by steam bath	<i>Kolakulathadi Churna</i>	3 days
06.05.2024	<i>Abyanga</i> followed by <i>Dasamoola Ksheeradhara</i>	<i>Ksheerabalataila</i>	7 days
13.05.2024	<i>Sirodhara</i>	<i>Chandanadi Taila</i>	14 days
27.05.2024	<i>Matra Vasti</i>	<i>Ksheerabala Taila</i>	1 day
27.05.2024	<i>Shastika Pinda Sweda</i>	<i>Ksheerabala Taila</i>	7 days
27.05.2024	<i>Sirobyanga</i>	<i>Chandanadi Taila</i>	7 days
28.05.2024	<i>Hapushadi Yapana Vasti</i>	<i>Ksheerabala Taila</i> and <i>Kalyanaka Ghrita</i>	3 days

### Follow-up and Outcomes

Patient was assessed based on insomnia severity index along with his sleeping hours. The initial stage of this condition started as gradual sleeplessness to a sleep of maximum 2 hours at night. The patient was having no practice of day time sleep as well as he was having an active day time.

The Insomnia Severity Index (ISI) is a 7-item self-report questionnaire assessing the nature, severity, and impact of insomnia. The usual recall period is the last month and the dimensions evaluated are: severity of sleep onset, sleep maintenance, and early morning awakening problems, sleep dissatisfaction, interference of sleep difficulties with daytime functioning, noticeability of sleep problems by others, and distress caused by the sleep difficulties. A 5-point Likert scale is used to rate each item (from 0 to 4).<sup>[8]</sup>

After the treatment, the ISI score was reduced to 13 from a score of 24.

**Table 3: Insomnia severity index scoring**

Criteria	04.05.'24	27.05.'24	02.06.'24
The current (i.e., last 2 weeks) severity of insomnia problem(s)			

1. Difficulty falling asleep:	4	3	3
2. Difficulty staying asleep:	1	0	0
3. Problem waking up too early.	4	3	2
How satisfied/dissatisfied with the current sleep pattern?	4	2	2
To what extent the sleep problem interferes with daily functioning (e.g. daytime fatigue, ability to function at work/daily chores, concentration, memory, mood, etc.)	4	2	2
How noticeable to others the sleeping problem is in terms of impairing the quality of life?	3	2	2
How much worried/distressed about the current sleep problem?	4	3	2
Total	24	15	13
Interpretation	Clinical insomnia (Severe)	Clinical insomnia (Moderate Severity)	Sub threshold insomnia

While analysing the Insomnia severity index score, more than 40 percentage response is observed which can be considered as moderate response in clinical terms. The sleeping hours was assessed on a daily basis. The treatment was starting with a sleeping hour of 2 and it became 4 hours gradually while *Dasamoolaksheeradhara* along with internal medicines. After *Shirodhara* along with internal medicines 1 hour augmentation in sleep was observed and the patient felt relieved from the anxiousness due to sleeplessness.

### DISCUSSION

Ayurveda deemed sleeplessness as *Anidra* which is primarily a *Vatadoshakopavikara* hand in hand with

the vitiation of other two *Doshas*. The *Rukshata* attributed by *Vatadosha* can be the potential cause resulting in *Anidra*. Along with that a change in the *Shariraprakriti* due to the involvement of certain drugs may add to cause an adverse impact.

Here, the patient was having migraine and was under medication continuously for about 120 days. The accumulation of undesirable compounds in the body created a reno - hepatic toxicity and resulted in insomnia and was not making headway even after the intake of sedative hypnotics as well as benzodiazepines. Insomnia was acting predatorily on the mental health of the patient and hence was in a necessity to have some reassurance.

The main objective of the therapy was to improve the duration of sleep and re-establish the psychological state of the patient from the dilemmas he had because of this insomnia. Later, preserving this situation even after tapering the medicines and therapies was the extended intention. Apart from this preserving an environment suitable for his condition, both in mental and physical terms, was a need of the hour. For fulfilling this, he was allotted with a comparatively silent and sufficiently darker area during the IPD treatment. A yoga therapy mainly focusing on relaxation was a choice along with.

The internal medicines preferred was *Chandanasavam*,<sup>[9]</sup> *Manasamitram Vatakam*<sup>[10]</sup> and *Shankupushpi Churna*<sup>[11]</sup> three of them which has beneficial implications on higher centres. *Chandanasavam* through the potency of drugs in it can relieve the excess body heat generating and is *Hridaya*, which can be interpreted as pleasing, soothing other than being a cardio tonic. *Manasamithram Vatakam* was administered in a view that it can reduce *Manodosha* in other terms factors affecting the mind to generate adverse impacts. It is also *Medhya* which clearly stating it has action on higher centres. *Shankupushpi Churna* was the third medicine which is a *Medhya Rasayana* as per *Acharya Charaka*. Apart from this various studies have been done to establish the wide spectrum of actions of *Shankupushpi Churna*. It is said that it can activate the sleep inducing areas of

the brain, namely, preoptic nucleus.<sup>[12]</sup> Such sedative activity is directly linked to the presence of phytoconstituents like convolamine and scopoletin which act similarly to GABA-A agonists, thereby bringing about the effects of sedation.<sup>[13]</sup> Both *Manasamithram Vatakam* and *Shankupushpi Churna* was taken in milk since the treatment principles of *Anidra* includes intake of milk as a sleep promotor.

The external therapies were ushered with a *Rukshana* therapy and extended in such a way that the patient will be receiving *Brimhana* therapy as well as *Shodhana* therapy to remove the existing adverse reactions happening in the body. Owing to this, the therapy is started with *Udwarthana* and then *Dasamoolaksheeradhara* as a preparatory phase of therapy.

*Udwarthana* which is helpful in *Pachana* of possible *Amadosha* was administered with *Kolakulathadi churna*. *Kolakulathadi Churna*<sup>[14]</sup> is specifically indicated for pacifying *Vatadosha*. After which *Dasamoolaksheeradhara*<sup>[15]</sup> which is primarily a *Vata – Pittahara* modality is made use to bring down the *Rukshata* and body temperature. *Ksheerabala Taila*<sup>[16]</sup> used for *Abyanga* prior to *Dasamoolaksheeradhara* serves the same *Pittahara* function and the effect was evident since there was increase in sleeping hours gradually and stress was seemed to be reduced. The therapeutic effect may be due to the diffusion of *Ksheera* through the fine pores.<sup>[17]</sup>

The major treatment that was planned to give was *Sirodhara*.<sup>[18]</sup> A drastic alteration and sustenance in sleep pattern was observed after doing *Shirodhara* which was one among the *Murdha Taila*.<sup>[18]</sup> *Murdha Taila* is the process of applying oil on to the *Moordha* (head) in different modes and is of 4 types namely, *Siroabyanga*, *Sirasekam*, *Siropichu* and *Sirovasti*. *Siraseka* or *Sirodhara* is a continuous oil dripping therapy which is basically a *Pittahara Chikitsa*. It mainly addresses *Sirasthoda*, *Daha* etc and has special indications to reduce stress, anxiety, and insomnia and to relax the nervous system.<sup>[19]</sup> By choosing *Chandanadi Taila*<sup>[20]</sup> which is prepared from predominantly *Sita Dravyas* act in adherence with that



of *Shirodhara* through its *Pittahara* property. *Sirodhara* was switched to *Siroabyanga*<sup>[21]</sup> after yielding a persistent sleep duration of 5 hours.

*Dhara* in any way tends to normalize the entire body and achieve a decreased activity of Sympathetic nervous system with lowering of brain cortisone and adrenaline level, synchronising the mind and spirit and this continues even after the relaxation. Lying in supine position also helps in relaxation.<sup>[17]</sup>

The next phase of treatment was in such a way to reinforce the accomplished state and to efface the abiding adversities from the body. The attempts of doing *Shastika Pinda Sweda* were to sustain the normalised *Doshavastha* and psychological state. *Shastika Pinda Sweda* is considered as a nourishing therapy and was done with an *Abyanga* using *Ksheerabala Taila*.

*Hapushadi Yapana Vasti*<sup>[22]</sup> was done succedent to *Shastika Pinda Sweda* after a *Matra Vasti* with *Ksheerabala Taila*. This was in an intention to achieve the removal of residues, and to have simultaneous action on higher centres. The *Hapushadi Yapana Vasti* is having a cogent effect on *Budhi* and *Medha*. It also ameliorates *Jatharagni* and *Bala*. Opting *Tiktaka Ghrita*<sup>[23]</sup> in addition to *Ksheerabala Taila* as *Sneha Dravya* in *Hapushadi Yapana Vasti*, was in an objective to have explicit action in higher centres in addition to *Pittaharatwa* properties.

Concurrently with all these treatments, *Padabyanga*<sup>[24]</sup> was a quotidian procedure done at night with *Dhanwantaram Kuzhamp*<sup>[25]</sup> since it has the capability to stabilize *Vatadosha*. *Padabyanga* is done in a systematic manner by incorporating 12 steps which ensures a soothing massage over all the planes of the foot. Probable action of *Padabyanga* is estimated as it can normalise the two important neurotransmitters Serotonin and Norepinephrine, which regulates a wide variety of Neuropsychological process along with sleep. Thus, it induces relaxation and natural sleep.<sup>[26]</sup>

## CONCLUSION

Sleep is one of the most important daily needs of a man to keep his life rhythm. For conservation of energy

sleep is a must in one's life. While a person experiences sleeplessness, many changes from normal rhythm can be observed in mental and physical aspects. As per Ayurveda, this changes in equilibrium will result in the disharmony of *Tridosha* status. To reestablish this multiple efforts will be required. Internal medicines along with external therapies will be required. Creating an environment suitable for patient's condition is also a necessity.

Ayurveda has wide range of therapies which includes *Brimhana*, *Shodana* etc which will help in *Anidra* or *Insomnia*. The modalities taken in this case was safe, effective and readily available. Through a sustained and systematic approach, the quality of life of patient was improved.

## REFERENCES

1. T Sreekumar. Annarakshadhyaya. Ashtangahridayam suthrasthanam. Thrissur: Harisree publications; 2017. 201
2. Shashirekha H.K, Bargale Sushant Sukumar. Ashtaunindithiya adhyayam. Charaka samhitha soothrasthanam. New Delhi: Chaukamba publications; 2017. 346
3. Shashirekha H.K, Bargale Sushant Sukumar. Ashtaunindithiya adhyayam. Charaka samhitha soothrasthanam. New Delhi: Chaukamba publications; 2017. 351
4. Shashirekha H.K, Bargale Sushant Sukumar. Ashtaunindithiya adhyayam. Charaka samhitha soothrasthanam. New Delhi: Chaukamba publications; 2017. 350
5. Niraj Ahuja. Sleep disorders. A short textbook of psychiatry. New Delhi: Jaypee publications; 2011. 136
6. Goadsby PJ. Pathophysiology of migraine. Ann Indian Acad Neurol. 2012 Aug;15(Suppl 1): S15-22. doi: 10.4103/0972-2327.99993. PMID: 23024559; PMCID: PMC3444225.
7. Morin CM, Belleville G, Bélanger L, Ivers H. The Insomnia Severity Index: psychometric indicators to detect insomnia cases and evaluate treatment response. Sleep. 2011 May 1;34(5):601-8. doi: 10.1093/sleep/34.5.601. PMID: 21532953; PMCID: PMC3079939.
8. Bastien CH, Vallières A, Morin CM. Validation of the Insomnia Severity Index as an outcome measure for

- insomnia research. Sleep Med. 2001 Jul;2(4):297-307. doi: 10.1016/s1389-9457(00)00065-4. PMID: 11438246.
9. Govind Das Sen. Pramehaki chikitsa. Baishajyaratnvali. Bombay: Shri Venkateswara steam press; 2009. 879
  10. K V Krishnan vaidyan and S Gopala Pillai. Manasamithram vatakam. Sahasrayogam. Alappuzha: Vidyarambham publishers; 2011. 139
  11. Prof. K. R. Srikantha Murthy. Rasayanavidhiradhyaya. Ashtanga hridayam uttarasthabam. Varanasi: Chowkhamba Krishnadas Academy; 2019. 388
  12. Balkrishna A, Thakur P, Varshney A. Phytochemical Profile, Pharmacological Attributes and Medicinal Properties of Convolvulus prostratus - A Cognitive Enhancer Herb for the Management of Neurodegenerative Etiologies. Front Pharmacol. 2020 Mar 3;11:171. doi: 10.3389/fphar.2020.00171. PMID: 32194410; PMCID: PMC7063970.
  13. Siddiqui NA, Ahmad N, Musthaq N, Chattopadhyaya I, Kumria R, Gupta S. Neuropharmacological Profile of Extracts of Aerial Parts of Convolvulus pluricaulis Choisy in Mice Model. Open Neurol J. 2011 Jul 11;8:11-4. doi: 10.2174/1874205X01408010011. PMID: 25110532; PMCID: PMC4126185.
  14. Shashirekha H.K, Bargale Sushant Sukumar. Aragwadiya adhyaya. Charaka samhitha soothrasthanam. New Delhi: Chaukamba publications; 2017. 57
  15. Acharya YT. Sushruta Samhita of Sushruta. Reprint ed. Varanasi: Choukhamba Surabharati Prakashana Publications; 2008. 778.
  16. K V Krishnan vaidyan and S Gopala Pillai. Ksheerabala taila. Sahasrayogam. Alappuzha: Vidyarambham publishers; 2011. 315
  17. Angadi, Sunanda & Katti, Anand & Aruna,. (2015). Effect of Jatamansi Taila Nasya and Kshiradhara in Insomnia. 11.
  18. T Sreekumar. Gandushadividhiradhyaya. Ashtanga hridayam suthrasthanam. Thrissur: Harisree publications; 2017. 130
  19. Uebaba K, Xu FH, Tagawa M, Asakura R, Itou T, Tatsuse T, Taguchi Y, Ogawa H, Shimabayashi M, Hisajima T. Using a healing robot for the scientific study of shirodhara. Altered states of consciousness and decreased anxiety through Indian dripping oil treatments. IEEE Eng Med Biol Mag. 2005 Mar-Apr;24(2):69-78. doi: 10.1109/memb.2005.1411351. PMID: 15825848.
  20. K V Krishnan vaidyan and S Gopala Pillai. Chandanadi taila. Sahasrayogam. Alappuzha: Vidyarambham publishers; 2011. 218
  21. G. Shrinivasa Acharya. Siroabyanga. Panchakarma illustrated. Delhi: Chaukamba Sanskrit pratishthan; 2006. 76
  22. Shashirekha H.K, Bargale Sushant Sukumar. Uttarabasti sidhi adhyayam. Charaka samhitha sidhisthanam. New Delhi: Chaukamba publications; 2018. 327-328
  23. K. R. Srikantha Murthy. Kushtachikitsa. Ashtanga hridayam chikitsasthanam. Varanasi: Chowkhamba Krishnadas Academy; 2019. 472-473
  24. G. Shrinivasa Acharya. Padabyanga. Panchakarma illustrated. Delhi: Chaukamba Sanskrit pratishthan; 2006. 125
  25. P.M. Govindan Vaidyan & Cheppatt K. Achuthavariyar. Garbhavyapath. Ashtanga hridayam Shareerasthanam. Kodungallur: Devi book stall; 2018. 63-64
  26. Akshay B Hiremath, Gurubasavaraj Yalagachin, K K Resmi, T S Uday, H N Chaithra, N K Ashitha, A clinical study on combined effect of Padabhyanga and Pranayama in Nidranasha (Primary Insomnia) - Research Article. J Ayu Int Med Sci. 2022;7(5):1-5

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