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Nidra Viparyaya as a Risk Factor for Agnidushti and Lifestyle Disorders: An Ayurvedic and Modern Review

Dr Anand V. Kalaskar[1], Dr. Pooja P. Neel[2], Dr Somesh G. Dalimkar[3]
[1]MD Kayachikitsa–Vikritivigyan, BHU
PG Diploma in Yoga, BHU; PG Diploma in Medico-Legal System, Symbiosis, Pune
[2] PG Scholar, Roganidana–Vikritivijnana, Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune
[3] PG Scholar, Roganidana–Vikritivijnana, Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune

Abstract : *Ayurveda* considers Nidra one of the three *Upastambhas* or supporting pillars of life. Adequate sleep taken at an appropriate time supports physical strength, nourishment, mental well-being, immunity and longevity. Disturbances in the duration, timing, quality or regularity of sleep may be collectively understood as *Nidra Viparyaya*. This includes *Ratri* Jagarana, inappropriate Divaswapna, *Alpa Nidra, Ati Nidra and Akala Nidra*. *Ayurvedic* principles suggest that abnormal sleep patterns disturb *Vata, Pitta* and *Kapha*, impair *Agni* and promote *Ama*, *Medodushti* and *Srotorodha.* Modern research similarly associates sleep and circadian disruption with obesity, insulin resistance, type 2 diabetes, hypertension and cardiovascular disease.

Keywords: *Ayurveda*.

I. INTRODUCTION

Lifestyle disorders are chronic, multifactorial conditions influenced by dietary habits, physical inactivity, psychological stress, tobacco and alcohol use, disrupted daily routines and inadequate sleep. Obesity, type 2 diabetes mellitus, metabolic syndrome, hypertension and cardiovascular diseases constitute major components of this group.

Sleep was previously considered a passive period of rest. Current evidence demonstrates that it is an active physiological process involved in neuroendocrine regulation, glucose metabolism, immune balance, appetite control, memory, tissue repair and cardiovascular recovery. *Ayurveda* recognised the health-promoting and disease-producing effects of sleep thousands of years ago.

Acharya Charaka describes *Ahara, Nidra* and *Brahmacharya* as the three *Upastambhas* supporting life:

त्रयोपस्तम्भा इति–आहारः स्वप्नो ब्रह्मचर्यमिति। *Charaka Samhita, Sutrasthana 11/35.*

The position of *Nidra* among the three supporting pillars demonstrates that appropriate sleep is almost as important as appropriate food. Proper observance of these pillars supports strength, complexion, growth and longevity.

Acharya Charaka further explains:

निद्रायत्तं सुखं दुःखं पुष्टिः कार्श्यं बलाबलम्।

वृषता क्लीबता ज्ञानमज्ञानं जीवितं न च॥ *Charaka Samhita, Sutrasthana 21/36.*

Happiness and unhappiness, nourishment and emaciation, strength and weakness, reproductive competence and incompetence, knowledge and ignorance, and life and its cessation depend upon appropriate or inappropriate sleep.

The expression *Nidra Viparyaya* is employed here as an inclusive conceptual term for deviation from physiologically appropriate sleep. It includes abnormality in:

- Time of sleep

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- Duration of sleep
- Regularity of sleeping and waking
- Continuity of sleep
- Depth and restorative quality
- Seasonal suitability
- Suitability according to age, constitution and disease status

The disturbance may occur as *Ratri Jagarana*, *Divaswapna*, *Alpa Nidra*, *Ati Nidra*, *Akala Nidra* or fragmented sleep. Modern equivalents may include sleep restriction, irregular sleep schedules, circadian misalignment, shift-work-related sleep disturbance, social jetlag and excessive daytime sleep.

Modern reviews report that sleep irregularity and circadian disruption are associated with obesity, metabolic syndrome, diabetes, cardiovascular disease and mortality. However, the degree of evidence varies across outcomes, and association does not always establish causation.

Ayurvedic literature does not describe sleep merely in terms of hours. It evaluates sleep according to *Kala, Dosha, Prakriti, Vaya, Ritu, Agni,* physical activity and clinical condition. This individualised understanding may provide a useful framework for studying sleep-related metabolic risk.

MATERIALS AND METHODS

The present study was conducted as a narrative and conceptual review.

Relevant references were collected from:

1. *Charaka Samhita* with *Ayurveda-Dipika* commentary of *Chakrapanidatta.*
2. *Sushruta Samhita* with *Nibandha-Sangraha* commentary of *Dalhana.*
3. *Ashtanga Hridaya* with *Sarvanga-Sundara* commentary of *Arunadatta* and *Ayurveda-Rasayana* commentary of *Hemadri*.
4. Standard Ayurvedic textbooks and published reviews related to *Nidra*, *Agni, Ama, Srotas* and lifestyle disorders.

Modern sources

Modern literature was reviewed using terms such as:

- Sleep irregularity
- Sleep deprivation
- Excessive sleep
- Circadian disruption
- Circadian misalignment
- Insulin resistance
- Obesity
- Metabolic syndrome
- Hypertension
- Cardiovascular disease

RESULTS

1. *Ayurvedic* concept of *Nidra*

Acharya Charaka explains that when the mind and sensory organs become exhausted and withdraw from their respective objects, the individual falls asleep.

यदा तु मनसि क्लान्ते कर्मात्मानः क्लमान्विताः।

विषयेभ्यो निवर्तन्ते तदा स्वपिति मानवः॥ *Charaka Samhita, Sutrasthana 21/35*

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According to this description, sleep involves the withdrawal of both mind and sensory faculties. Natural sleep at the appropriate time is necessary for restoration of physical and mental functions.

Physiological benefits of proper sleep

Proper sleep supports:

- *Sukha*—physical and mental well-being
- *Pushti*—proper nourishment
- *Bala*—strength
- *Vrishata*—reproductive vitality
- *Jnana*—cognitive functioning
- Stable *Dosha* and *Dhatu*
- Healthy complexion
- Appropriate appetite and digestion
- Longevity

Improper sleep produces opposite effects, including weakness, emaciation, cognitive disturbance and disease.

2. Types of *Nidra* described in *Ayurveda*

Acharya Charaka describes different causes or forms of sleep:

1. *Tamobhava*—sleep caused by predominance of Tamas
2. *Shleshma Samudbhava*—sleep caused by increased Kapha
3. *Manah-Sharira Shrama Sambhava*—sleep due to mental and physical exhaustion
4. *Agantuki*—sleep caused by external or pathological factors
5. *Vyadhyanuvartini*—sleep associated with disease
6. *Ratri-Svabhava Prabhava*—natural sleep occurring at night

Reference: *Charaka Samhita, Sutrasthana* 21/58–59.

Natural nocturnal sleep is considered physiologically beneficial, while sleep caused by disease, excessive *Kapha* or *Tamas* may be pathological.

3. Concept of *Nidra Viparyaya*

Nidra Viparyaya may be defined as deviation from the appropriate time, duration, quality or regularity of natural sleep.

4. Effect of *Ratri Jagarana*

Acharya Vagbhata states:

रात्रौ जागरणं रूक्षं स्निग्धं प्रस्वपनं दिवा।

Night awakening produces *Rukshata*, while daytime sleep produces *Snigdhata* and *Abhishyanda.*

Reference: *Ashtanga Hridaya, Sutrasthana* 7. The same chapter discusses *Ratri Jagarana*, *Divaswapna*, seasonal indications and consequences of untimely sleep.

Although night awakening initially produces *Ruksha* and *Vata*-dominant effects, prolonged disruption may secondarily disturb *Pitta*, particularly when wakefulness extends into *Pitta Kala.* This may contribute to excessive hunger, acidity, irritability and disturbed metabolic regulation.

5. Effect of *Divaswapna*

Daytime sleep is generally considered *Kapha*- and *Pitta*-aggravating when used inappropriately. *Acharya Charaka* explains that excessive or contraindicated daytime sleep can produce disorders due to simultaneous aggravation of *Kapha* and *Pitta*.

Reference: *Charaka Samhita, Sutrasthana* 21/44–49.

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Daytime sleep is not absolutely contraindicated. It may be beneficial in summer and in individuals who are exhausted, underweight, very young, elderly, ill, injured or deprived of sleep for an appropriate reason. Thus, suitability depends on season, age, constitution and clinical condition.

6. Effect of excessive sleep

Excessive sleep promotes *Kapha* and *Tamas*. In individuals consuming heavy, oily and sweet foods, excessive sleep and physical inactivity may together promote *Kapha* and *Meda Vriddhi*.

7. Effect of insufficient sleep

Insufficient sleep increases *Vata*. *Acharya Charaka* states that untimely and excessive wakefulness or sleep may destroy well-being and longevity, similar to *Kalaratri.*

Reference: *Charaka Samhita, Sutrasthana* 21/38.

8. *Nidra Viparyaya* and *Agnidushti*

Importance of Agni

Acharya Charaka describes *Agni* as the basis of life, strength, complexion, health, enthusiasm, nourishment, Ojas and vitality:

आयुर्वर्णो बलं स्वास्थ्यं उत्साहोपचयौ प्रभा।

ओजस्तेजोऽग्नयः प्राणाश्चोक्ता देहाग्निहेतुकाः॥ *Charaka Samhita, Chikitsasthana* 15/3–4.

Agnidushti includes abnormal functioning of *Agni,* such as:

- *Mandagni*—weak digestion
- *Vishamagni*—irregular digestion
- *Tikshnagni*—excessively sharp digestion
- *Samagni*—balanced digestion

General *Samprapti*

Nidra Viparyaya→ Disturbance of natural *Dosha* rhythm→ *Vata, Pitta* or *Kapha Prakopa*→ *Agnidushti*→ Improper digestion and *Ama* formation→ *Rasa Dhatu Dushti*→ *Srotorodha* and abnormal *Dhatu* nourishment→ *Meda, Mamsa* and *Rakta Dushti*→ Lifestyle disorders

9. *Nidra Viparyaya* and *Sthaulya*

Sthaulya develops through excessive nourishment of *Meda Dhatu, Kapha Vriddhi*, *Medovaha Srotodushti* and reduced physical activity. Excessive sleep and daytime sleep contribute to *Kapha* and *Meda* accumulation.

Acharya Charaka includes excessive sleep and lack of physical and mental activity among the contributing factors of obesity. *Charaka Samhita, Sutrasthana 21, Ashtauninditiya Adhyaya.*

Probable pathway

Ati Nidra/Divaswapna→ *Kapha Vriddhi*→ *Agnimandya*→ *Ama* and *Meda* accumulation→ *Medovaha Srotorodha*→ Reduced physical activity and further *Kapha–Meda Vriddhi*→ *Sthaulya*

Modern literature also associates irregular sleep and circadian disruption with obesity and metabolic syndrome.

10. *Nidra Viparyaya* and *Prameha*

Ayurveda describes excessive sleep, daytime sleep, sedentary habits and excessive intake of Kapha-promoting foods among the important causes of *Prameha.*

References

- *Charaka Samhita, Nidanasthana 4—Prameha Nidana.*
- *Charaka Samhita, Chikitsasthana 6—Prameha Chikitsa.*
- *Sushruta Samhita, Nidanasthana 6—Prameha Nidana.*

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Inappropriate daytime sleep may aggravate *Kapha*, increase *Meda* and cause *Kleda* accumulation. These abnormalities are important components of *Prameha Samprapti*.

Probable pathway

Divaswapna and Ati Nidra→ *Kapha–Meda Vriddhi*→ *Agnimandya* and *Ama*→ Increased *Kleda* → *Medovaha* and *Mutravaha Srotodushti*→ Predisposition to *Prameha*

This is conceptually comparable—but not identical—to the modern association between disturbed sleep, adiposity, insulin resistance and type 2 diabetes.

11. *Nidra Viparyaya* and cardiovascular disorders

Chronic sleep deprivation may aggravate Vata and Pitta, while excessive sleep may promote *Kapha, Meda* and *Srotorodha*. These different patterns can adversely influence circulation and cardiovascular health.

Possible Ayurvedic pathways include:

- *Vyana Vata Dushti*
- *Rakta Dushti*
- *Meda Vriddhi*
- *Dhamani Pratichaya*
- *Manovaha Srotodushti*
- Chronic stress and disturbed mental equilibrium

Modern evidence indicates that circadian disruption and sleep irregularity are associated with hypertension, cardiovascular disease and mortality risk.

12. Modern interpretation

Circadian rhythm

The circadian system regulates the sleep–wake cycle and coordinates hormonal secretion, glucose metabolism, appetite, body temperature and cardiovascular function. Sleep timing that repeatedly conflicts with the light–dark cycle may produce circadian misalignment. The sleep–wake cycle and circadian system work together to regulate physiological processes in an appropriate temporal sequence.

Glucose metabolism

Sleep restriction and circadian misalignment may:

- Reduce insulin sensitivity
- Alter glucose tolerance
- Increase evening glucose levels
- Disturb cortisol rhythm
- Affect pancreatic beta-cell function
- Increase the risk of type 2 diabetes in susceptible individuals

Appetite and obesity

Inadequate or irregular sleep may alter appetite regulation, promote preference for energy-dense foods and reduce motivation for physical activity. Longer waking time may also increase opportunities for eating, particularly at night.

Long sleep duration is also associated in observational studies with metabolic and cardiovascular disorders. However, excessive sleep may sometimes be a consequence of underlying illness, depression,sleep apnoea, medication use or reduced physical activity. Therefore, association does not necessarily prove causation.

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DISCUSSION

Ayurveda and modern chronobiology both recognise that sleep is closely related to metabolism. *Ayurveda* explains this relationship through *Dosha*, *Agni*, *Ama*,*Dhatu* and *Srotas,* whereas modern medicine explains it through circadian regulation, neuroendocrine function, glucose metabolism, appetite hormones, autonomic activity and inflammation.

Conceptual similarities

Ayurvedic concept	Possible modern interpretation
Kala and natural daily Dosha rhythm	Circadian rhythm
Ratri Jagarana	Sleep deprivation or delayed sleep
Akala Nidra	Circadian misalignment
Agnidushti	Disturbed digestive and metabolic regulation
Ama	Conceptual state of incomplete metabolism; no exact biomarker
Kapha–Meda Vriddhi	Adiposity and metabolic dysfunction
Srotorodha	Functional obstruction or impaired physiological transport
Divaswapna	Daytime sleep with possible behavioural or circadian effects

These are conceptual parallels and should not be treated as exact equivalents.

Nidra Viparyaya as a behavioural risk factor

Disturbed sleep often coexists with:

- Late-night eating
- Excessive screen exposure
- Reduced physical activity
- Psychological stress
- Shift work
- Irregular meal timing
- Increased consumption of processed food
- Alcohol, tobacco or stimulant use

Therefore, disturbed sleep may influence lifestyle disorders both directly and indirectly. In Ayurvedic terms, these combined behaviours can produce *Prajnaparadha*, *Kala Viparyaya*, *Agnidushti* and *Dosha Prakopa*.

Ayurvedic sleep principles may support prevention through:

- Maintaining regular sleeping and waking times
- Avoiding unnecessary night awakening
- Avoiding inappropriate daytime sleep
- Taking meals at regular times
- Avoiding heavy meals close to bedtime
- Reducing excessive screen exposure at night
- Practising appropriate physical activity
- Managing psychological stress
- Following *Dinacharya* and *Ritucharya*
- Evaluating persistent snoring, insomnia or excessive daytime sleepiness medically

These recommendations should be individualised according to *Prakriti, Agni*, age, season, occupation and existing disease.

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II. CONCLUSION

Nidra is a fundamental pillar of health in *Ayurveda.* Its benefits depend not only on duration but also on proper timing, regularity, quality, season and individual suitability. *Nidra Viparyaya* includes night awakening, insufficient sleep, excessive sleep, inappropriate daytime sleep and irregular sleep timing.

Night awakening and insufficient sleep predominantly aggravate *Vata* and may produce *Vishamagni.* Excessive sleep and contraindicated daytime sleep increase *Kapha, Pitta, Kleda* and *Meda*, leading more commonly to *Mandagni.* Persistent *Agnidushti* may generate *Ama*, impair *Rasa Dhatu* formation, disturb tissue nourishment and produce *Srotodushti*. These changes provide an *Ayurvedic* basis for understanding the possible contribution of abnormal sleep to *Sthaulya, Prameha* and other lifestyle disorders.

Modern evidence supports associations between sleep restriction, excessive sleep, irregular sleep, social jetlag and cardiometabolic risk. The biological pathways include circadian misalignment, altered glucose regulation, appetite dysregulation, sympathetic activation, inflammation and behavioural changes.

Although the two knowledge systems use different terminology, both identify regular and restorative sleep as essential for metabolic health. *Nidra Viparyaya* should therefore be considered a clinically relevant and modifiable component of lifestyle assessment. Future studies should integrate validated *Ayurvedic* measures with objective sleep and metabolic parameters.

REFERENCES

1. Agnivesha. Charaka Samhita, revised by Charaka, with Ayurveda Dipika commentary of Chakrapanidatta. Acharya YT, editor. Varanasi: Chaukhambha Orientalia; 2011. Sutrasthana, Chapter 11, verse 35.
2. Agnivesha. Charaka Samhita, with Ayurveda Dipika commentary of Chakrapanidatta. Acharya YT, editor. Varanasi: Chaukhambha Orientalia; 2011. Sutrasthana, Chapter 21, verses 35–59.
3. Agnivesha. Charaka Samhita, with Ayurveda Dipika commentary of Chakrapanidatta. Acharya YT, editor. Varanasi: Chaukhambha Orientalia; 2011. Sutrasthana, Chapter 21, verses 46–50.
4. Sushruta. Sushruta Samhita, with Nibandhasangraha commentary of Dalhana. Acharya YT, Acharya NR, editors. Varanasi: Chaukhambha Sanskrit Sansthan; 2012. Sharirasthana, Chapter 4.
5. Vagbhata. Ashtanga Hridaya, with Sarvangasundara commentary of Arunadatta and Ayurveda Rasayana commentary of Hemadri. Paradakara HSS, editor. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutrasthana, Chapter 7.
6. Vagbhata. Ashtanga Hridaya, with commentaries of Arunadatta and Hemadri. Paradakara HSS, editor. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutrasthana, Chapter 11.
7. Vagbhata. Ashtanga Hridaya, with commentaries of Arunadatta and Hemadri. Paradakara HSS, editor. Varanasi: Chaukhambha Surbharati Prakashan; 2017. Sutrasthana, Chapter 4. (Nidra Vega Dharana).
8. Agnivesha. Charaka Samhita, with Ayurveda Dipika commentary of Chakrapanidatta. Acharya YT, editor. Varanasi: Chaukhambha Orientalia; 2011. Chikitsasthana, Chapter 15. (Grahanidosha Chikitsa).
24. Patil KB. Critical review on Nidra i.e. sleep concept as per Ayurvedic classical text. Ayurline Int J Res Indian Med. 2024;8(2). doi:10.52482/ayurline.v8i02.875.
25. Deshmukh S, Sanghavi B, Vyas M. A critical study on Nidra and Swapa in Charaka Samhita. Int J Appl Ayurved Res. 2015;1(10):1-3.
26. Rohra P, Kobbanna B. Concept of Nidra: a review article. J Ayurveda Integr Med Sci. doi:10.21760/jaims.9.11.33.