

WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.084

Volume 9, Issue 3, 1659-1677.

Review Article

ISSN 2277-7105

REVIEW ON THE CONCEPT OF NIDRA: ONE OF THE THREE UPASTAMBHA

Vijay Kumar¹, Anupam Srivastva², Rajesh Kumar Mishra*³ and Abdul Muhith⁴

¹Associate Professor & Head, Department of Swsthavritta & Yoga, North Eastern Institute of Āyurveda & Homoeopathy (NEIAH), Shillong, Meghalaya.

²Director, Rastriya Āyurveda Vidyapeeth, New Delhi.

³Assistant Professor, Pg. Department of Dravyaguṇa Vigyāna, Patanjali Bhartiya Āyurvigyāna Evum Anusandhan Sansthan, Haridwar.

⁴Ug Scholar (BAMS 4th Year), College of Āyurveda, North Eastern Institute of Āyurveda & Homoeopathy (NEIAH), Shillong, Meghalaya.

Article Received on 22 Jan. 2020,

Revised on 12 Feb. 2020, Accepted on 02 March 2020 DOI: 10.20959/wjpr20203-17006

*Corresponding Author

Dr. Rajesh Kumar Mishra

Assistant Professor, Pg.
Department of Dravyaguṇa
Vigyāna, Patanjali Bhartiya
Āyurvigyāna Evum
Anusandhan Sansthan,
Haridwar.

ABSTRACT

 $\bar{A}yurveda$ the eternal science considers the three pillars of life as $V\bar{a}ta$, Pitta and Kapha and considers $Nidr\bar{a}$ as one of the three Upastambha, the three sub-pillars along with $\bar{A}h\bar{a}ra$ and Bramhacarya. Along with the Tridosa, the three Upastambha coequally fulfils the prayojana of $\bar{A}yurveda$, maintenance of the health of the healthy and cure of diseases. Any disturbance in dosa and upastambha leads to the causation of diseases. $\bar{A}yurveda$ defines the $Nidr\bar{a}$ (sleep) as the physiological state of rest for the $\dot{S}ar\bar{\imath}ra$ (body), mana (mind) and indriya (sense organs). Literature of $Nidr\bar{a}$ can be traced even in the Vedic era which was mentioned by various synonyms as $K\bar{a}l\bar{a}gni$, $Rudrapatn\bar{\imath}$ etc. In $\bar{A}yurveda$, $Nidr\bar{a}$ has been given special position in maintaining the healthy state of the individual. It helps in providing sukh (happiness), dukh (unhappiness), pusti (good physique) etc. The

reason behind the causation of $Nidr\bar{a}$ has been considered as $Kl\bar{a}nta$ (exhaustion) and Tamoguṇa. $Nidr\bar{a}n\bar{a}\acute{s}a$ (insomnia) one of the major pathological state in the modern era is well described along with the $Cikits\bar{a}$ (treatment). An attempt has been made to compile the literature available on the different $\bar{a}yurvedic$ classical texts.

KEYWORDS: *Tridoṣa, Upastambha, Nidrā, Tamoguṇa, Nidrānāśa.*

INTRODUCTION

As $V\bar{a}ta$, Pitta and Kapha are considered Trayostambha (three main pillars) of the body because they bears the body, as in the same manner $\bar{A}h\bar{a}ra$ (diet), $Nidr\bar{a}$ (sleep) and $Bramh\bar{A}c\bar{a}rya$ (celibacy) are considered as Trayo-upastambha, i.e. sub-pillars of the body. $J\bar{a}grata$ avasth \bar{a} , $susupt\bar{a}$ -avasth \bar{a} , Swapna-avasth \bar{a} , $Tur\bar{y}\bar{y}vasth\bar{a}$ are the four stages of Mana and $\bar{a}tm\bar{a}$ are explained in the $Dar\dot{s}ana$ -Grantha. $J\bar{a}grata$ $Avasth\bar{a}$ is defined as one in which one will perceive the sensation of $\dot{s}abda$ - $\bar{a}di$ indriya. $Susupt\bar{a}$ - $Avasth\bar{a}$ is defined as the stage in which $\bar{A}tm\bar{a}$ does not exhibit any interest in subject and dreaming is absent in this stage. Different essential life activities like heart beat, blood circulation, respiration etc. continue in this stage. $Susupt\bar{a}$ - $Avasth\bar{a}$ is also called as the $Nidr\bar{a}$ - $Avasth\bar{a}$. $Tur\bar{y}a$ $Avasth\bar{a}$ is defined as the one in which the person is having the Satwa-Guṇ a predominant gets this type of sleep. This type of sleep is under the control of the Satwa-Guṇ a and not in the control of Tamo-Guṇ a. It is only experienced by the yogic persons.

Nidrā: an overview from āyurvedic perspective

 $Nidr\bar{a}$ is the physiological state of rest for the body, mind and sense organs. When the *mana* (mind) & *indriya* (sensory organs) get exhausted, they withdraw themselves from their objects and the individual's sleeps. Sleep is nothing but location of mind in a place unconnected with sensory & motor organs. This phenomenon is mainly due to *Klama* (exhaustion) of the body and mind.^[1]

Synonyms of nidrā

Amarakoşa	Vedic Kāla:	Samhitā Kāla:
Śayana	Kālāgni	Vaiṣaṇavi
Swapa	Rudrapatnī	Bhūdhātrī
Svapna	Singh-Yoginī	Pāpamūlā
Saveśa	Swapna	Tamobhavā
	Kālī	Tāmasī

Types of Nidrā

Types of <i>Nidrā</i> According to different Ācārya				
$ar{A}car{a}rya$ $Caraka^{[2]}$	Ācārya Suśruta ^[4]	$ar{A}$ cārya V āgbhaṭa $^{[7]}$		
Tamobhawā	Vaiṣaṇavī	Kāla-swabhāwajā		
Śleṣma Samudbhawā	Vaikārikiī	$ar{A}$ māyākheda-prabhāwajā		
Manaṣ-śarīra-śrama-sambhawā	Tāmasī	Chittakheda prabhāwajā		
Vyādhānuvartinī		Dehakheda prabhāwajā		
Āgantukī		Kaphaprabhavā		
Rātri-swabhāva-prabhawā		$ar{A}$ gantuk $ar{\imath}$		
		Tamobhawā		

Ācārya Caraka has explained six types of

$Nidr\bar{a}$ as follows [3,4,66]

- 1. Tamobhawā- Sleep due to excessive of tamas guṇa.
- 2. Śleşma-Samudbhawā- Sleep due to excess of Kapha Doşa.
- 3. *Manaṣ-śarīra-śrama-sambhawā* Sleep following excessive activity or exhaustion of body and mind.
- 4. *Vyādhānuvartinī* Sleep due to diseased state.
- 5. *Āgantukī* Unnatural sleep.
- 6. *Rātri-swabhāva-prabhawā-* Natural sleep.

Tamobhawā: It is defined as the type of *Nidrā* which appears due to the excess of *tamoguṇa* of *mana* (mind).

Ślesma- samudbhawā

- It is defined as the type of *Nidrā* which appears due to the excess of *Kapha Doṣa*.
- Increased *Kapha Doṣa* in the body results in the *avarodha* (obstruction) of sensory pathway and leads to sleepiness.
- According to Ācārya Cakrapāṇi this type of Nidrā appears in the day time along with the tamo-guṇa.

Manaḥ - śarīra - śrama - sambhawā

- It is the type of *Nidrā* which appears due to the tiredness of *mana* (mind) and *Śarīra* (body) because of heavy work, and then it is called as *mana Śarīra Śrama sambhawā Nidrā*.
- Mānasika and Śārīrika klama brings about inactivity of the mind resulting in the dissociation of the mind and the sense organs from their objects which is responsible for Nidrā.

Vyādhānuvartinī

It is the type of *Nidrā* which appears due to diseased state is called as *Vyādhānuvartinī Nidrā*. In general *Nidrā* appears due to the influence of *Kapha Doṣa* hence whenever there is increase in *Kapha Doṣa* more than its normal quantity then the sleep appears at that time. This type of sleep is indicative of *vyādhi* (disease).

$ar{A}$ gantuk $ar{\imath}$

- It is the type of $Nidr\bar{a}$ which is caused due to pralap etc.
- According to Ācārya Cakrapāṇi this type of Nidrā is called as riṣṭabhūtā i.e. the Nidrā,
 which indicates the death signs.

If any individual suddenly feels sleepy repeatedly without any cause, it usually indicates a bad prognosis.

Rātriswabhāwa prabhawā

It is the type of $Nidr\bar{a}$ which appears at the time of night called as $R\bar{a}triswabh\bar{a}wa~Nidr\bar{a}$. This is the normal type of $Nidr\bar{a}$. It helps in maintaining the life of the human being hence also called as ' $Bh\bar{u}tadh\bar{a}tri$ '. According to $\bar{A}c\bar{a}rya~Cakrap\bar{a}ni$, it is the type of $Nidr\bar{a}$ which helps in maintaining the life of human being healthy and happy is called as $Bh\bar{u}tadh\bar{a}tri$. The word $dh\bar{a}tri$ indicates to take care or to hold up and the word $bh\bar{u}ta$ is mentioned for the all created beings. Hence collectively the word $Bh\bar{u}tadh\bar{a}tri$ indicates human being or which holds up the life without causing any symptoms or diseases. It is natural sleep which occurs during night.

$\bar{A}c\bar{a}rya$ Suśruta has explained three types of Nidr \bar{a} as follows [4,5,6,66]

 $Vaişaṇav\bar{\imath}$ $Nidr\bar{a}$: It is a normal type of $Nidr\bar{a}$ and it is the energy of god, which helps in maintaining the life of human being.

Vaikārikī Nidrā: This type of Nidrā appears due to the enfeebled Kapha Doṣa and aggravated Vāta Doṣa or due to any troubles of mana (mind) or Śarīra (body). According to Ācārya Dalhaṇa when there is heavy work load then there is increase in Vāta Doṣa ultimately decreasing the Kapha Doṣa along with this the laṅghana (taking no food) also develops increase in Vāta Doṣa. Hence the Nidrā appearing in all these condition is called as "Vaikārikiī Nidrā". This type of Nidrā resembles to that of four types of Nidrā mentioned by Ācārya Caraka as Śleṣma Samudbhawā, Mana-Śarīra-Śrama-sambhava, Āgantukī, Vyādhānuvartinī.

Tāmasī Nidrā: It is the type of *Nidrā* which appears due to influence of *tama guṇa*, called as *Tāmasī Nidrā*. It produces unconsciousness at the time of death.

$\bar{A}c\bar{a}rya\ vrddha\ v\bar{a}gbhaţa\ mentioned\ seven\ types\ of\ nidr\bar{a}\ as\ follows^{[7]}$

- 1. Kāla-swabhāwajā
- 2. Āmāyākheda-prabhāwajā
- 3. Chittakheda-prabhāwajā
- 4. Dehakheda-prabhāwajā
- 5. Kapha-prabhāwajā
- 6. Āgantukī
- 7. Tamobhawā

Kāla-swabhāwajā nidrā: It is the type of *Nidrā* which appears at proper time.

 $\bar{A}m\bar{a}y\bar{a}kheda$ -prabh $\bar{a}wa$: It is the type of $Nidr\bar{a}$ which appears due to the diseases present in the $\acute{S}ar\bar{\imath}ra$ called as $\bar{a}m\bar{a}y\bar{a}kheda$ $Nidr\bar{a}$. The word $\bar{a}ma$ is used for the factor which generates in the $\acute{S}ar\bar{\imath}ra$ due to the undigested food.

Chittakheda-prabhawā nidrā: It is the type of $Nidr\bar{a}$ which appears due to the disturbances in the manas, called as $chittakheda prabhaw\bar{a} Nidr\bar{a}$.

Dehakheda-prabhawā Nidrā: It is the type of Nidrā which appears due to tiredness of the body called as dehakheda-prabhawā-Nidrā.

Kaphaprabhawā nidrā: It is the type of *Nidrā* which appears due to aggravated *Kapha doṣa* called as *Kapha prabhawā Nidrā*.

 $\overline{Agantuk\bar{\imath}}$ -nidr \bar{a} : This type of $Nidr\bar{a}$ appears due to the external factors like accidents, injuries etc. This type of $Nidr\bar{a}$ is considered as abnormal.

 $Tamobhaw\bar{a}$ -nidr \bar{a} : $Tamobhaw\bar{a}$ type of $Nidr\bar{a}$ appears due to the aggravated stage of tamoguna of mind. This type of $Nidr\bar{a}$ results into the sinful behavior. $\bar{A}c\bar{a}rya$ $Su\acute{s}ruta$ and $\bar{A}c\bar{a}rya$ Caraka mentioned it as $P\bar{a}pam\bar{u}l\bar{a}$ (root of the bad works).

Mechanism of *nidrā* as per *āyurveda* perspective

 $Kl\bar{a}nta$ (tiredness) in the causation of sleep:^[8] Due to their karma (action), mana (mind) and indriya (sensory organs) get $Kl\bar{a}nta$ (tired) and it further leads to $Nidr\bar{a}$. Therefore they (mana and indriya) withdraw from their $vi\bar{s}aya$ (objects). $Nidr\bar{a}$ (sleep) is nothing but a combined stage of tired mind and body. It means when the mind withdraw its attention from its work and the sense organs get tired due to heavy work load then this combined leads to the $Nidr\bar{a}$ (sleep).

Tamoguna in the causation of sleep: [9] *Hrdaya* is the seat of *cetanā* (consciousness), when tamoguna covers the hrdaya, the individual gets sleep. Hence satva is the cause for consciousness and tama is the cause for Nidrā. Due to avarana of Kapha i.e. Ślesma in strotasa and due to Śrama, indriya retired from their karma and Nidrā occurs. Nidrā is the illusive energy of the God and naturally it has its way over the all created beings. It appears firstly at the starting of the whole world and tamasa guna plays an important role in its formation. Therefore Nidrā is also called as 'Tamo-mūlā'. Tamasa guņa rises at its peak during the Nidrā (sleep) hence it is also named as 'Tamomayī'. Tamasa guṇa appears at night. Ācārya Suśruta mentions that hrdaya is the seat of cetanā in Śarīra. When this is invaded by tamoguna, Śarīra gets Nidrā. Tamoguna is the cause for Nidrā and satva guna is the cause for bodhana. This is known as swabhāwaka (natural) cause. [10] Nidrā (sleep) is the offspring of tamoguna and awaking process is the quality of satva guna. This is the fundamental law of nature. [11] When *indriayas* (sensory objects) got *vaikalya* and *tamoguṇa* is greatly increased then *Bhutātmā* is said to be sleeping though he is actually not sleeping. These are the important reasons for the $Nidr\bar{a}$ (sleep). [12] $\bar{A}c\bar{a}rya~\dot{S}\bar{a}ra\tilde{n}gadhara$ mentions that aggravation of Kapha-Dosa and tamoguna leads to Nidrā. Because of the Tamoguna and Pitta-Doşa it leads to murcha. Aggravation of Rajasa guṇa and in combination with Vāta and pitta Doşabhrānti occurs. Tandrā occurs due to the aggravation of Tamasa guṇa along with *Vāta* and *Kapha Dosa*.^[13]

Importance of *nidrā*:^[14,15,16] Ācārya has mentioned both merits and demerits of sleep. *Nidrā* is responsible for *Sukha* (happiness), *dukha* (unhappiness), *puṣṭi* (good physique), *kārśya* (emcitation), *vṛṣatā* (sexual power), *klībatā* (impotence), *gyāna* (knowledge), and *agyāna* (illiteracy), *jīvitā* (long life), *ajīvitā* (death). Proper sleep (*Sāmyak Nidrā*) gives us *sukha*, *puṣṭi*, *bala*, *vṛṣatā*, *gyāna* and *jīvana* and improper sleep (*Asāmyak Nidrā*) causes *dukha*, *kārśya*, *abala*, *klībatā*, *agyāna* and *ajīvitā*. Proper sleep at night helps the individual to remain

happy and active the whole day. The proper sleep helps in building the body and general physique. Similarly improper sleep affects the health of the individual. Thus it can cause adverse effect on the body i.e. it may cause general debility. $Nidr\bar{a}$ can also effect on the sexual potency of the human being as it helps in strengthening the body and ultimately helps in increasing the proper digestion of the diet and through this, it helps in converting the $\bar{A}h\bar{a}ra$ -rasa (digested food) till the $\dot{S}ukra$ $dh\bar{a}tu$. The sleep can also affect the life of man thoroughly as it may also cause death if not taken for so many periods. The $Nidr\bar{a}$ (sleep) which was taken at proper time, period gives us $\bar{a}rogya$ (health) and $p\bar{u}rn\bar{a}yu$ (full term life) like the flashed true knowledge providing $siddh\bar{t}$ (accomplishment to yogi). [17]

 $\bar{A}c\bar{a}rya$ Caraka described $Nidr\bar{a}$ also in the therapeutic aspects as in the treatment of $atikrśat\bar{a}$ (leanness), acintanacya $k\bar{a}rya$ (freedom from anxiety about any work), $Nidr\bar{a}$ along with $\bar{A}h\bar{a}ra$ etc. factors leads to brimhana and make the man like a varaha. [18] Just like $\bar{A}h\bar{a}ra$ is required for maintenance of health similarly $Nidr\bar{a}$ as required for sukha and $\bar{a}rogya$. Stholya and $k\bar{a}rsya$ depends on $Nidr\bar{a}$. [19] $Nidr\bar{a}$ taken at proper time gives us pusti (good physique), varna (glowness of skin), bala (power), utsaha, $agnid\bar{a}pti$ and $dh\bar{a}tus\bar{a}mya$. [20] $\bar{A}c\bar{a}rya$ $Bh\bar{a}vamiśra$ mentions that Jagaran causes ruksata (dryness) and decreases Kapha Dosa and poison intoxication. $S\bar{a}myak$ $Nidr\bar{a}$ (the sleep taken at proper time i.e. in night) maintains $dh\bar{a}tus\bar{a}mya$ (equilibrium of $dh\bar{a}tus$). It also gives pusti, bala, utsaha and agnidipti. [21]

Clinical classification of $nidr\bar{a}$: [22,23,24,25] On the basis of the beneficial and non-beneficial, $Nidr\bar{a}$ are classified as follows:

- 1. *Para Nidrā* It is *sāmyaka Nidrā*, it provides *sukha* and *āyuṣya* and it is healthy for the life of human beings.
- 2. *Apara Nidrā* it is *asāmyaka Nidrā*, it destroys *sukha* and *āyu* and it is unhealthy for the life of human beings.

Apara Nidrā is further classified in three categories:

- a. Akāla sevita Nidrā-Mithyāyoga rūpa: Sleep taken at improper time
- b. *Atiprasanga sevita Nidrā-Atiyoga rūpa:* Excessive sleep.
- c. *Naca sevita Nidrā-Hīnayoga rūpa:* No sleep or inadequate sleep.

Nidrā sātmyatā: Ācārya Suśruta mentioned about *Nidrā s tyamatā*, those persons, due to their working pattern and circumstances became *sātmya* (habitual) to *rātrijāgaraṇa* or *diwāswapa* (day sleep) it doesn't affect on their health. Bhāvamiśra mentions that, If

someone accustomed to *diwāswapna* (day sleep) or *rātrau Nidrā* (night sleep), it will not cause any harm.^[27]

Yogya nidrā lakṣaṇa: $\bar{A}c\bar{a}rya$ Caraka mentions that the sleep caused by nature of night is excellent sleep. It keeps every one lively, nourishes them like mother, so called as $Bh\bar{u}tadh\bar{a}tri$. [28] $Nidr\bar{a}$ is like $m\bar{a}y\bar{a}$ of Viṣṇu, it naturally comes to all beings. It is also known as $p\bar{a}pin\bar{\iota}$ as it destroys all means, through which good action can be done at that time. [29]

Yogya nidrā vidhi: One should sleep over a comfortable bed in home & at proper time at which sleep is accustomed, one should go to sleep.^[30]

Sāmānya nidrā kāla: According to Ācārya *Vāgbhaṭa*: 2-3 yāma [1 yāma= 3 hours]

Relation between nidrā and doṣa

Rātri-jāgaraņa	Doșa-Prakopa
Ācārya Caraka ^[31,33]	Vāta Doṣa
Ācārya Suśruta ^[35]	Vāta and Pitta Doṣa
Ācārya Vāgbhaṭa	Vāta Doṣa
Ācārya Suśruta ^[35]	Tridoșa

Diwā-swapna	Doșa Prakopa
Ācārya Caraka ^[31]	Kapha and Pitta Doṣa
Ācārya Suśruta ^[35]	Tridoṣa

Ācārya Caraka mentions that atijāgaraṇa leads to Vātasoṣakopa. [31,33] Mādhava-nidāna follows Caraka Samhitā and admits kopa of Vāta Doṣa due to Rātrijāgaraṇa. [32,34] Ācārya Suśruta mentions that Rātrijāgaraṇa causes increase in the Vāta and PittaDoṣa. [35] Ācārya Vāgbhaṭa follows Ācārya Caraka and mentions Rātrijāgaraṇa causes Vāta Doṣakopa. Ācārya Śārañgadhara mentions that aggravation of tamoguṇa and Kapha causes Nidrā. [36] As mentioned by Ācārya Bhāvamiśra, the Nidrā (sleep) taken after meal causes increase in Kapha Doṣa and simultaneously decreases Vāta and pittadoṣa. [37] In Hārītasamhitā it is mentioned that malamūtra-vidhāraṇa, excessive kaṣāya-rasa-sevana, jāgaraṇa in night, aggrevates Vāta. [38]

Nidrā as a vegadhārana

According to $\bar{A}c\bar{a}rya$ Caraka following are some symptoms which appears due to $Nidr\bar{a}vegdh\bar{a}rana$ (suppression of urge) of sleep. [38] $Jrmbh\bar{a}$ (Yawing), Angamarda (Bodychae), $Tandr\bar{a}$ (Drawsiness), Siro-roga (Disorders related to head), Aksigaurava

(Heaviness in eyes). The treatment for the *Nidrā-vega-dhāraṇa-janya-lakṣaṇa* is to take proper *Nidrā* (sound sleep) and *saṃvahana* (massage) over the hand and foot. According to *Ācārya Vāgbhaṭa* the symptoms of *Nidrā vegadhāraṇa* are as follows:^[39,40], *Aṅgamarda*, *Bhrama*, Śiro-roga, Āpaktii, jṛmbhā, Tandrā, Jāḍya, Vātaja roga, Glāni.

According to *laghu Vāgbhaṭṭācārya Nidrā-vega-dhāraṇa-janya-lakṣaṇa* are as follows:^[41,42] *moha, mūrchā, akṣigaurava, ālasya, jṛmbhā and Aṅgamarda*. These symptoms may disappear by taking proper *Nidrā* (good sleep) and doing *saṃvahanam* (massage). As per *Ācārya Bhāvamiśra Nidrā vegvidhāraṇa* causes *jṛmbhā, śirolocana-gaurava* (heaviness in eyes and head), *Aṅgamarda, Tandrā* and *annapāka* (improper digestion of food).^[43] *Ācārya Suśruta* mentioned that the *Nidrā-vega-dhāraṇa-janya-lakṣaṇa* resembles to that of the diseases of *Vāta* and *pitta*. They mentioned the list of the symptoms as:^[44] *Kāsa, Śwāsa, Pratiśyāya, Śirogaurava, Aṅgamarda, Arodhaka, Jwara, Agnidaurbalya*.

Diwāswapna

Indications for diwāswapna^[45]

A healthy person generally should not sleep during the day, except in *Grīṣma* i.e. summer. In summer, a person gets exhausted because of the hot climate and gets disturbed or gets inadequate sleep in the night, which in this season is comparatively shorter. Sleeping during day time is prescribed for those who are emaciated by-singing, study, alcoholic drinks, sexual acts, elimination therapy, carrying heavy weight, walking long distance, Suffering from phthisis, wasting, thirst, diarrhea, colic pain, dyspnoea, hiccough, insanity, Those who are too old, too young, weak, emaciated, injured by fall, assault, exhausted by journey, vigil, anger, grief, fear and those accustomed to day sleep. The persons having working habit, diseases the environmental condition which increases Vāta Doşa, must sleep in day time. The persons having working as habit, physical conditions, diseases or the environmental condition, which increases the Kaphadoşa of the body should not take the diwāswapna (day sleep). Ācārya Cakrapāṇi has made a special comment regarding diwāswapna including the opinion of Ācārya Kṣārapāni, according to him the person who missed their sleep (jāgarana) at night due to work, they should indulge in day sleep to minimize the Vātakṣobhajanita (Vāta vṛdhi) lakşana further he states that the persons who missed their sleep at night (jāgarana) should consume the sleep half in the quantity (ardhamātrama) to which they missed at night. Ācārya Vāgbhata also mentioned the list of the persons requiring diwāswapna (day sleep) as mentioned by $\bar{A}c\bar{a}rya$ Caraka. In the last line of this quote they added the benefits of the

 $diw\bar{a}swapna$ (day sleep) as it creates $dh\bar{a}tus\bar{a}mya$ (equilibrium in the $dh\bar{a}tu$) and increased Kapha-Dosa maintains the body properly. [46]

Need for day sleep in grīşma ṛtu

Ācārya Caraka mentioned the need for diwāswapna (day sleep) in Grīşma ṛtu. In Grīşma-ṛtu rātri (night) becomes sankṣepa (short) and Vāta gets aggrevated in the Śarīra (body) due to the ādāna. Therefore during this rtu diwāswapna (day sleep) is recommended for all. Hence to maintain doṣa-sāmya, the person should take diwāswapna (day sleep). [47] Ācārya Vāgbhaṭa mentions that Diwāswapna is indicated in Grīsma-rtu (summer). Vātasancaya, ruksa guna vrddhi, alpa-rātri (shortened night) these are the features of Grīsma-rtu. To compensate (overcome) these factors one must take diwāswapna only in Grīsma-rtu. The diwāswapna taken other than Grīşma rtu, causes Kapha pitta duşţi. Ācārya Vrddha Vāgbhaţa mentioned the need of diwāswapna (day sleep) in Grīşma-ṛtu. In Grīşma-ṛtu, naturally the Vāta Doṣa gets activated and along with this there is dryness in the environment due to the extreme heat of the sun. Due to the increase in Vāta Doṣa, rukṣa guṇa (dryness properly) of body increases. Along with this the heat of Grīsma-rtu also causes dryness in the environment causing increase in dryness of the body. Also the time period of the Grīṣma-ṛtu is more in day than in night; hence ultimately night becomes shorter than the winter and rainy season. These all factors increase dryness in the body; hence there is need for diwāswapna (day sleep) in *Grīsma-rtu*. Other than this season *Nidrā* taken in day time (*diwāswapna*) increases the Kapha and pitta Doşa of the body causing various diseases originating from themselves. [48,49,66]

Contraindications of diwāswapna

According to $\bar{A}c\bar{a}rya$ Caraka taking $diw\bar{a}swapna$ (day sleep) is dangerous for the life of man and it may cause various diseases. They mentioned in the above quote that, taking $diw\bar{a}swapna$ (day sleep) except in the $Gr\bar{\imath}sma$ rtu is hazards for the body and it should be avoided. Because it causes increase in the Kapha and pitta-dosa and this condition may lead into the various diseases of these two dosa. $\bar{A}c\bar{a}rya$ mentioned the list of persons which are banned for $diw\bar{a}swapna$ (day sleep). These are Fatty person (medaswin), The persons who consume the diet of oily food daily in more quantity or those who are addicted to taking unctuous substances, The persons having their prakrti (constitution) of Kapha Dosa (Slesma) naturally, The persons who are suffering from the diseases due to the vitiation of Kapha ($Slesmarog\bar{\imath}$), The persons who are exposed to $visa-d\bar{u}s\bar{\imath}visa$ (poison of certain insect). [51]

 $\bar{A}c\bar{a}rya$ Suśruta also mentioned the list of persons who are banned for diwāswapna (day sleep) as like $\bar{A}c\bar{a}rya$ Caraka. Those who having excessive Kapha and med (fat) in body, suffering from Kantha-roga (throat disease) and viṣa (poison), should not take diwāswapna (day sleep) in $Gr\bar{s}ma-rtu$. [53,54,66]

Effects of improper sleep: Ācārya Caraka mentions that effects of improper sleep are Halīmaka (chlorosis), śiraḥaśūla (headache), stimitya (cold sensation), gātragaurava (heaviness of body organs), Angamarda (bodychae), agnināśa (loss of appetite), feelings of as like plastering of heart, śopha (oedema), arocaka (anorexia), hṛllāsa (nausea), pinasa (rhinitis), ardhābhedaka (migraine), kotha (Urticarial patches), pidakā (pustules and boils), kandu (itching) Tandrā (drowsiness), kāsa (cough), disorder of throat, derangement of memory and intelligence, sanrodha (obstruction of channels), jwara (fever), incapability of sense organs, intensity in effect of poisons, these occurs due to non-indicated (unwholesome) day sleep. Hence the wise, after knowing the wholesomeness and unwholesomeness of $Nidr\bar{a}$ (sleep), should take Nidrā happily. [55] Ācārya Vāgbhaṭa also mentioned some symptoms and the diseases as the side effects of the diwāswapna (day sleep) as mentioned by Ācārya Caraka. Diwāswapna (day sleep) is infact abnormality and as sukh those who sleep in day become victim of unrighteousness and aggravation of dosa which gives rise to diseases sukh as Jwara, hrllāsa, arocaka, pīnasa, ardhāvbhedaka etc. [56] Ācārva Bhāvamiśra mentions that One should not sleep in day because it aggravates Kapha Dosa. So except Grīsma-rtu diwāswapna (day sleep) is not indicated in other rtu. [57,66]

Nidrānāśa

Causative factor for nidrānāśa

 $\bar{A}c\bar{a}rya$ Suśruta mentions that $V\bar{a}ta$ pitta prakopa, manast $\bar{a}pa$, k, saya, abhighata are the causes of Nidranaśa. [58, 66]

- Due to aggravated condition of $v\bar{a}yu$.
- Due to aggravated condition of pitta.
- Due to the mental harassment or aggravated stage of mind.
- Due to weakness or loss of vital fluid from the body.
- Due to accidents, hurt or any injury.

The following factors are responsible for the disturbance in the sleep. [59]

- **1.** *Kārya* (Work) If work had done at night time or in heavy quantity can cause disturbances in the sleep. The people who work in night become more prone to the symptom of loss of sleep.
- **2.** $K\bar{a}la$ (Time)- The second factor that is $K\bar{a}la$. It is also important to the disturbances in the sleep. It is related with our life and affects directly on our sleep.
- 3. Vikāra (Diseases) Some diseases may cause the disturbances in the sleep. According to Āyurveda particularly the diseases of Vāta origin can cause the loss of sleep. Because if there is increase in Vāta Doṣa then ultimately the Kapha Doṣa decreases. Therefore the diseases influenced by increased Vāta Doṣa can cause disturbances in the sleep or loss of sleep.
- **4.** $V\bar{a}yu$ ($V\bar{a}ta$) $V\bar{a}ta$ Doṣa itself causes loss of sleep. Naturally when there is influence of $V\bar{a}ta$ Doṣa in the environment then time period of sleep decreases.
- **5.** *Prakṛti* (constitution) –According to *Āyurveda* there are three basic elements which builds up the life of human being. *Vāta*, *Pitta and Kapha* these three factors decide the constitution of the man while birth. These three elements form seven types of constitution. Out of these seven, the person having only *Vātaja prakṛti* (constitution) have less sleep than persons with any other constitution.

 $\bar{A}c\bar{a}rya\ V\bar{a}gbhaṭa$ mentioned these five factors for disturbance in sleep or causing loss of sleep, $K\bar{a}la$, $dh\bar{a}tukṣaya$, $vy\bar{a}dhi\ (jwar\bar{a}di-vy\bar{a}dhi)$ and $V\bar{a}tapitta-vṛddhi$ are the hetu of $Nidr\bar{a}n\bar{a}śa$. [60]

Cikitsā of nidrānāśa

Ācārya Caraka mentions that Abhyanga (doing massage), utsādana (applying the medicated powder over the body), snāna (bath), consuming diet like rasa (soup) of the animals from the jalīya (aquatic), ānūpa (hydrotic), grāmya (wild) etc. are some measures for chikitsā of Nidrānāśa. The diet like Śāli (old rice) with curd, consuming milk, ghee, alcohol, hearing the word which gives pleasure to the mind. Doing certain measures as like samvahana (pressing the body), akṣi-tarpaṇa (application of the medicated drops in the eyes), śirolepa (application of the medicated paste over the head), mukha-lepa (application of the medicated paste over the face) and to take the sleep on the well prepared and clean bed. Along with this sleeping at the time, to which the person get habituated to it. All these factors are said to be beneficial for the treatment of the symptoms appearing due to Nidrāvega dhāraṇa (holding the urge).

 $\bar{A}c\bar{a}rya$ Suśruta also mentioned the treatment for the Nidrānāśa, which is the similar to that of maintained by $\bar{A}c\bar{a}rya$ Caraka. Some different measures said by $\bar{A}c\bar{a}rya$ Suśruta are-Abhyaṅga (anoiniting the body), śiroabhyaṅga (massaging or rubbing the oil on the head), diet consisting of the cakes made up of Śāli rice and wheat prepared with sugar or other derivatives of the sugar cane or soothing articles with milk or meat juice, flesh of animals of biṣkira or vileśaya, eating grapes, sugar or sugar cane at night, are some beneficial measures for the Nidrānāśa. Along with these, the soft and pleasant bed and easy convenient seat and means of locomotion are also said to be useful in the treatment of Nidrāvegadhāraṇa. [66]

Atinidrā

 $\bar{A}c\bar{a}rya\ V\bar{a}gbhața$ mentiones $Atinidr\bar{a}$ (excess of sleep) leads to increase in the Kapha, which hampers the Agni. Which leads to decrease in the digestion of food, Excessive sleep restricts the digestion of excessive Kapha, so $apacyam\bar{a}na\ Kapha$ obstructs the srotasa. Obstructed srotasa creates heaviness in the body, which further leads to $\bar{A}lasya$ (laziness) & which further leads to $atinidr\bar{a}$. [61]

Atinidrā cikitsā

According to Ācārya Caraka ^[62]	According to Ācārya Suśruta ^[63]	According to Ācārya Vāgbhaṭa ^[64]
Kāya-virecana	Vamana-medicated vomiting	Tikṣṇa vamana
Śiro-virecana	Laṅghana-fasting	Aṅjana
Vamana	Raktamokṣaṇa-blood letting	Nāvanam
Bhaya (fear)	Manovyakulāni etc.	Laṅghana
Cintā		Cintā

Rātrijāgaraņa

According to $\bar{A}c\bar{a}rya$ Caraka, keeping awake at night increases $V\bar{a}ta$ and pitta. This causes complaints like constipation, weakness, giddiness, lack of concentration, hyperacidity, burning of eyes, burning of eyes, burning of hands and feet. If due to unavoidable reasons person has to keep awake at night, he should sleep during next morning, half hours of night sleep, before taking any food. However, the health of those who are habitually used to workers in night and sleeping during the day (industrial night workers), is not affected as they get used to this abnormal sleep rhythm. [65]

Indications for keeping awake at night

- Kapha prakṛti person and individual suffering from Kaphaja disorders
- *Sthaulya* (obese) person

- Vișa yukta individual, and
- Persons taking diet rich in fat.

DISCUSSION

This compilation intensively explores the literature available related to $Nidr\bar{a}$ from $\bar{A}yurveda$ point of view and does the critical analysis with the available literature. This compilation has couple of strengths. We have used descriptive analysis for comparative studies between the $\bar{A}yurveda$ literatures among different $\bar{A}c\bar{a}rya$. Different physiological and pathological aspects have been discussed along with the therapeutic measures. One important aspect related to present era, i.e. $Anidr\bar{a}$ has been well discussed. Stress and strains of day to day life increases tension, anxiety, fear etc. People themselves are inviting various physical as well as mental disorders, because of indulging in $M\bar{a}nasika$ $nid\bar{a}na$. Different relaxation techniques like meditation, $Pr\bar{a}n\bar{a}y\bar{a}ma$ and smoothening music would be beneficial for $Nidr\bar{a}$ $n\bar{a}\acute{s}a$ conditions.

CONCLUSION

 $Nidr\bar{a}$ has been considered as one of the three upasthambha along with $\bar{A}h\bar{a}ra$ and Bramhacarya. In $\bar{A}yurveda$ $Nidr\bar{a}$ has been given utmost importance in the maintenance of health. $\bar{A}c\bar{a}rya$ have stated that happiness and sorrow, growth and wasting, strength and weakness, virility and impotence and the knowledge and ignorance as well as the existence of life and its cessation depend on the sleep. The aim is to compile the subject matters about $Nidr\bar{a}$ from different resources and re-evaluate the various principles related to different aspects of sleep. It is believed that the information presented on " $Nidr\bar{a}$ " might provide incentive for proper evaluation of different aspects related to $Nidr\bar{a}$.

REFERENCES

- Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition.
 Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011;
 21-35.
- Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21: 58-59.

- 3. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-samhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Cakrapāṇi commentry on Caraka Samhitā Sūtrasthāna, 2011; 21: 58-59.
- 4. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 1.2(3): 4-32.
- 5. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Dalhaṇa commentary on Suśruta Saṁhitā Śārīra Sthāna, 2012; 1: 4-32.
- Sharma, Anant Ram. Suśruta-samhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Dalhana commentary on Suśruta Samhitā Śārīra Sthāna, 2012; 4-33.
- 7. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, 2005, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 1: 9-48.
- 8. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Cakrapāṇi commentry on Caraka Saṁhitā Sūtrasthāna, 2011; 21-35.
- 9. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 9: 19-21.
- 10. Sharma, Anant Ram. Suśruta-samhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Samhitā Śarīra Sthāna, 2012; 1: 4-34.
- 11. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 1: 4-35.
- 12. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 1: 4-37.
- 13. Tripathi, Brahmanand. Śārṅgadhara-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Surbharti Prakashan, Śārṅgadhara-saṁhitā Pūrvakhanda, 2013; 6: 23-24.
- 14. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-36.
- 15. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 9: 19-22.
- 16. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 1: 7-53.

- 17. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-38.
- 18. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-34.
- 19. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-51.
- 20. Sharma, Anant Ram. Suśruta-saṁhitā Vols.I. Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Cikitsā Sthāna, 2012; 5-315.
- 21. Misra, Brahmasankara. Bhāvaprakāśa. Eleventh Edition. Varanasi (India): Chaukhambha Sanskrit Bhawan, Bhāvaprakāśa Pūrvakhanda, 2010; 2: 5-315.
- 22. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 2: 21-37.
- 23. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 1: 9-23.
- 24. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 7-54.
- 25. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 7: 53-54.
- 26. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 1.2(3): 4-41.
- 27. Misra, Brahmasankara. Bhāvaprakāśa. Eleventh Edition. Varanasi (India): Chaukhambha Sanskrit Bhawan, Bhāvaprakāśa Pūrvakhanda, 2010; 2: 5-219.
- 28. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-59.
- 29. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śūtra Sthāna, 2012; 1.2(3): 4-32.
- 30. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-samhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Samhitā Sūtrasthāna, 2011; 21-54.

- 31. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā CikitsāSthāna, 2011; 28-15.
- 32. Murthy, K.R. Srikantha. Mādhava-Nidānam. Reprint Edition .Varanasi (India): Chaukhamba Orientalia. Mādhava-nidāna, 2011; 22-1.
- 33. Šāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā CikitsāSthāna, 2011; 29-7.
- 34. Murthy, K.R. Srikantha. Mādhava-Nidānam. Reprint Edition .Varanasi (India): Chaukhamba Orientalia. Mādhava-nidāna, 2011; 23-3.
- 35. Sharma, Anant Ram. Suśruta-samhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Samhitā Śarīra Sthāna, 2012; 4-37.
- 36. Tripathi, Brahmanand. Śārṅgadhara-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Surbharti Prakashan, Śārṅgadhara-saṁhitā Pūrvakhanda, 2013; 6-23.
- 37. Misra, Brahmasankara. Bhāvaprakāśa. Eleventh Edition. Varanasi (India): Chaukhambha Sanskrit Bhawan, Bhāvaprakāśa Pūrvakhanda, 2010; 2: 5-220.
- 38. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 7-23.
- 39. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 1: 9-37.
- 40. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 7-64.
- 41. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2011; 1: 5-15.
- 42. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 1: 4-12.
- 43. Misra, Brahmasankara. Bhāvaprakāśa. Eleventh Edition. Varanasi (India): Chaukhambha Sanskrit Bhawan, Bhāvaprakāśa Pūrvakhanda, 2010; 1: 5-11.
- 44. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna; 2012; 1.2(3): 4-37.
- 45. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-samhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Samhitā Sūtrasthāna, 2011; 21: 39-41.

- 46. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 9: 27-28.
- 47. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-43.
- 48. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2011; 7: 56-57.
- 49. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 9: 25-26.
- 50. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-samhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Samhitā Sūtrasthāna, 2011; 21-44.
- 51. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-45.
- 52. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 1.2(3): 4-37.
- 53. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 1: 9-29.
- 54. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 7-60.
- 55. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21: 46-49.
- 56. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Astāṅgasaṅgraha Sūtrasthāna, 2005; 9: 30-32.
- 57. Misra, Brahmasankara. Bhāvaprakāśa. Eleventh Edition. Varanasi (India): Chaukhambha Sanskrit Bhawan, Bhāvaprakāśa Pūrvakhanda, 2010; 2: 5-217.
- 58. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 1.2(3): 4-42.
- 59. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-samhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Samhitā Sūtrasthāna, 2011; 21-57.

- 60. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 1: 9-36.
- 61. Gupta, Atrideva. Aṣṭāṅgasaṅgraha. Varanasi (India): Reprint Edition. Krishna Das Academy, Aṣṭāṅgasaṅgraha Sūtrasthāna, 2005; 9: 52-53.
- 62. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21: 55-56.
- 63. Sharma, Anant Ram. Suśruta-saṁhitā Reprint Edition. Varanasi (India): Chaukhambha Surbharati Prakashan, Suśruta Saṁhitā Śarīra Sthāna, 2012; 4: 46-47.
- 64. Tripathi, Brahmanand. Aṣṭāṅgahṛdayam. Reprint Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, Aṣṭāṅgahṛdayam Sūtrasthāna, 2011; 7-62.
- 65. Śāstrī, Kāśīnātha & Chaturvedi, Gorakha Nātha. Caraka-saṁhitā. Reprint Edition. Varanasi (India): Chaukhambha Bharati Academy, Caraka Saṁhitā Sūtrasthāna, 2011; 21-50.
- 66. https://shodhganga.inflibnet.ac.in/bitstream/10603/2490/13/13_chapter%206.pdf(Last accessed on 18/08/2019