

CORRELATION OF THE ANIDRA ON THE BASES OF AYURVEDIC SYMPTOMATOLOGY WITH SPECIAL REFERENCE OF INSOMNIA ON THE BASIS OF SURVEY STUDY

Shruti Sharma*¹, Shashwat Bawankule² and Dr. Devendra Chhayala³

^{1,2}Student BAMS, SAM College of Ayurvedic Sciences and Hospital, Raisen.

³Associate Professor, Dept of Kayachikitsa, Sri Sai Institute of Ayurvedic Research and Medicine, Bhopal.

*Corresponding Author: Shruti Sharma

Student BAMS, SAM College of Ayurvedic Sciences and Hospital, Raisen.

Article Received on 10/09/2022

Article Revised on 30/09/2022

Article Accepted on 20/10/2022

ABSTRACT

Nidra Nasha is a term used to describe the pathological loss of sleep in *Ayurveda*. *Ayurveda* has described three sub-pillars for holistic healthy living. These three are *Aahara* (food), *Nidra* (sleep), and *brahmacharya* (celibacy). All three are needed to support the body itself for physical, mental, and social, well-being. *Nidra* is a reversible state of unconsciousness occurring naturally. It is easily distinguishable from the various diseased condition of mind like stupor, unconsciousness, and coma as the patient is easily aroused. *Nidra* is an outcome of a relaxed mental state. Disturbance in the quality or quantity of sleep in *nidra* is termed as *Anidra*. Acharya Charak describe *Anidra* as *Vata Nanatmaja Vyadhi* due to key role of *Vata* dosha in the pathology of *Anidra*. This review of literature aims on understanding the correlations between the concepts of *Nidra-Anidra* and insomnia. This will help in the better-conceptualized study of etiology as well as the pathophysiology of Insomnia.

KEYWORDS: *Nidra Nasha*, Insomnia, *Anidra*, *Nidra Vikara*, Sleep Disorders.

INTRODUCTION

Vata, *Pitta*, and *Kapha* are the three important pillars of life described in the Ayurvedic science, and are known as Tristhuna of life because of their importance in the maintenance of normal physiology of life by their various properties and action based on those properties. These three pillars are supported by three sub pillars i.e., *Triupstambha* which includes *aahara*, *Nidra*, and *brahmacharya*.^[1]

Cause of *nidra* which were described in Ayurvedic texts is “when body get tired and *Mana* fails to receive signals from various *Indriyas* person will feels *nidra*”. So adequate sleep is needed for rejuvenation & restoration of the body and for the healthy reestablishment of mind body relation. Even in contemporary forms of medicine, sleep is given utmost importance due to its effect on the digestive system, endocrine system, and others. Hence most adults are advised to get at least 8 hours of sleep every day.

In the present era of machine and fast life, every individual is running fast to achieve the goal in competitive world, but in the competitive era we are compromising with the basic need of survival i.e. food and sleep. Due to this, insomnia is still one of the leading complaints amongst people of all age groups. People with insomnia complain about the difficulty in either

initiation or maintenance of sleep or both. About 30% of the population of India suffers from occasional insomnia and 9% of the population suffers from long-term insomnia.^[2] This produces significant daytime symptoms which include loss of concentration, tiredness, mood swings, etc. *Ayurveda* spread light on this disorder centuries ago and highlighted various causes, symptoms, and cures for *Anidra*. However, conventional medical science is still not able to figure out appropriate management for insomnia. They regularly prescribe sedatives and hypnotic drugs as a treatment.

AIM & OBJECTIVES

1. To carry out a comprehensive, conceptual, analytic and comparative study regarding the fundamental aspects of *Anidra*.
2. To assess the symptoms associated with *Anidra* and review the symptoms of *Anidra* and Insomnia based on survey study.

MATERIALS AND METHODS

The study carried 2 components: Conceptual study and survey study.

All the available literature was thoroughly reviewed to explore the basic concept of *nidra* and *Anidra*. A deep

conceptual study was done to find the Ayurvedic and modern aspect of *Anidra*.

Diagnostic criteria - Symptomatology mentioned for *Anidra* in *Ayurveda* compared with symptomatology mentioned for insomnia in conventional medical sciences.

Study Population – A total 20 patients of either gender was selected randomly for the study. Out of these 16 patients are males and 4 are females. Consent were obtained from the patients regarding participation in the survey study before the conduction of study. The cases are selected as per signs and symptoms of *Anidra* w.s.r to insomnia and sleep disorders.

Study tool – Clinical evaluation is done and data is collected through information obtained by history. Also, two well-structured questionnaires based on symptoms of *Anidra* described in Ayurvedic text and Symptoms of Insomnia described in Allopathic science were used for study and history taking.

Inclusion criteria

Patients of either sex between the age of 16-70 years
Patients of *Anidra*, *khandit nidra*, *nidra nasha*.
Patients dealing with insomnia for 1 month or more complaining about symptoms of *Anidra* or *nidranasha* such as *Jrimbha*, *Glani* etc.

Exclusion criteria

Tandra
Nidranasha due to *madatyaya* and *abhighata*
Patient of Chronic disorder of brain like cerebral Hemorrhage, Cerebral infarct, Epilepsy, Parkinsonism, Neurocysticercosis.

Conceptual Study

Anidra
Nidranasha or *Anidra* is a disorder where the patient experiences difficulty in the initiation or maintaining sound sleep. Patient experiences other symptoms including waking up early without complete sleep and being unable to sleep again. The patient wakes up with a feeling of tiredness and exhaustion. *Acharya Charaka* and *Acharya Sushruta* have each given a set of factors. Factors mentioned by *Acharya Charaka* explain the pathological and physiological causes of *Anidra*, whereas *Acharya Sushruta* explains only the pathological causes of *Anidra*.

Insomnia and Conventional Sleep Theories

Having a hard time falling asleep or most of the time of night remain asleep is termed as insomnia. It is the most dangerous condition as in this situation patient became anxious and restless because he fall down on bed in search of sleep but mind did not reach to the state of rest and remain in active state making that person constantly tossing and turning. The concept of 'unsatisfactory sleep' was developed by the American Medicine Institute in

1979. These concepts were developed by conventional medical science and established them in term insomnia. Classification of Insomnia by the 2nd edition of the International Classification of Sleep Disorders has described various causes of insomnia.^[3] Here the common factor lies in their presentation like poor sleep quality, daytime fatigue and grogginess, inability to focus or complete tasks in a given time frame. According to this, insomnia is defined as a disorder of insufficient sleep almost every night or the patient remains tired after the usual sleep time. Many postulates and theories explain the physiology of sleep.^[4] Some researchers postulated the role of neurotransmitters which act as either sleep-promoting or sleep inhibiting agents in the normal physiology. These are GABA, Serotonin, dopamine, norepinephrine, melatonin, etc. When affected these neurotransmitters cause insomnia.

Etiology of Anidra

The etiological factors of insomnia in *Ayurveda* include eating *ruksha* food^[5] [food with dry property], consumption of barley,^[6] increase in physical work and fasting,^[7] coitus,^[8] not eating food for a long period,^[9] and uncomfortable beds.^[10] Therapeutic causes include excessive *Vamana* [vomiting], *virechana* [purgation], *Nasya* [medication via nasal pathway], *raktmokshana* [bloodletting], *dhooma* [medicated smoke], *swedana* [sudation], *Anjana* [collyrium]. Psychosomatic causes include fear, anxiety, and anger. Apart from these, excessive joy, sorrow, greed, or agitation can lead to insomnia.

According to *Acharya Charaka*, the following factors are responsible for the disturbance in sleep^[11]

1. Karya [Work]

Work done during the night or work which gets heavy can lead to sleep instability. This is the reason why people who do night shifts are more prone to the symptoms of insomnia. This is why *Ayurveda* tells you not to work at night and not to sleep during the daytime.

2. Kaal [Time or Age]

Kaal is also an important factor regarding disturbances in sleep. It is connected with our life and leads to hazardous effects on sleep. A child in its infant stage of life sleeps most of the time during the day and night, but as age increases, the actual sleep time decreases. It happens because of the direct influence of *Kapha dosha*. *Kapha dosha* is more prominent during young age in an individual's life. This produces more sleep in children. However, in old age due to dominance of *Vata dosha* and diminishing of *Kapha dosha* leads to a decrease in the duration of sleep.

3. Vikara [Diseases]

Various diseases cause sleep disturbances and insomnia. According to *Ayurveda*, diseases that have *Vata* dominance can cause insomnia. Increased *Vata dosha* is

responsible for diminishing *Kapha dosha* which results in sleep disorders.

4. Prakruti [Constitution]

According to *Ayurveda*, *Vata*, *Pitta*, and *Kapha* are the three basic elements which build up the life of a human being. These three elements form 7 types of *Prakriti*. Out of these, a person with *vataja Prakriti* shows a shorter duration of sleep than a person with any other *Prakriti*. Also, *Vata dosha* causes sleep disorders due to its Anti-*Kapha* properties.

The mind plays an important role in the sleep cycle of the body. *Tamo guna* along with *Kapha dosha* helps in creating sleep. Any mental stress or trouble increases *rajo guna* which is similar to *Vata dosha*. This leads to an increase in *Vata dosha* and a decrease in *tamo guna*. Apart from this, *ruksha guna* of *Vata dosha* causes weakness in the body. Any trauma or injury causes pain which is linked to *Vata dosha*, hence it leads to sleep disorders and disturbances. The etiology of *Anidra* mentioned by *Acharya Charaka* and *Acharya Sushruta* is described in table 1.

Table 1: Etiology of Anidra.

Charaka Samhita	Sushrut Samhita
<i>Karya</i> [physical or mental activity]	<i>Vata vriddhi</i> [<i>vata</i> increase in body]
<i>Kala</i> [age related changes or seasonal or diurnal changes]	<i>Pitta vriddhi</i> [<i>pitta</i> increase in body]
<i>Vikara</i> [disorders or conditions affecting sleep]	<i>Manasantapa</i> [mental harrassment]
<i>Prakruti</i> [natural variations in the sleep cycle]	<i>Kshaya</i> [weakness]
	<i>Abhighata</i> [accidents trauma or injury]

Symptoms of Anidra

According to *Acharya Charaka*, sleep is a passive state that is initiated via termination of sensory input where *manas* is distracted from the *gyanindriya* and *karmindriya*^[12] According to conventional medical theories, sensory awareness withdrawal is supposed to be a factor in sleep but an active initiation mechanism helping the brain is also recognized. *Acharya Madhava* described *Nidravikara* as the process where sleep is not properly activated. Hence, the symptoms of sleep disorders are as follows.^[13]

- 1- *Indriyartheshuasamviti* – lack or absence of attentiveness and focus
- 2- *Gauravam* – a feeling of tiredness and fatigue
- 3- *Jrumbha* – Yawning often during daytime
- 4- *Klama* – tiredness which is both mentally and physically
- 5- *Nidrataisav* – feeling fatigue, drowsy, and sleeplessness

The symptoms described in the conventional medical theories are

- 1- Sleepwalking
- 2- Difficulty in falling asleep during nighttime
- 3- Feeling drowsy even after a night's sleep
- 4- Irritability or anxiety
- 5- Poor focus or concentration
- 6- Daytime fatigue or sleepiness
- 7- Headache
- 8- Being uncoordinated, increase in errors whilst working
- 9- Gastrointestinal tract disorders
- 10- Difficulty in socializing
- 11- Worrying about sleep

Survey Study

Diagnosis - A voluntary survey was conducted in the time duration of 1 month on the patients falling under inclusion criteria. The survey was done via the usage of 2 pro formas. Diagnosis of *Anidra* in *Ayurveda* is done via *Charaka Nidravikara Nidan Padhati* pro forma and the score is later summed up. Diagnosis of insomnia is done via the usage of insomnia scale.

Table 2: Charaka nidravikara Nidan Padhati.

S. no.	SYMPTOMS	No. of days	No. of times in a day	Effect of any medicine	Automatic relief
1	<i>Shira shool</i> [headache]				
2	<i>Stamityata</i> [body covered with something wet]				
3	<i>Gurugatrata</i> [heaviness]				
4	<i>Kshudamandyata</i> [anorexia]				
5	<i>Hridayapralepa</i> [palpitation]				
6	<i>Pinasa</i> [rhinitis]				
7	<i>Urushoola</i> [chest pain]				
8	<i>Tandra</i> [tiredness]				
9	<i>Kasa</i> [cough and throat pain]				
10	<i>Smritipramoha</i> [difficulty in remembering]				
11	<i>Indriyasamarthata</i> [poor alertness]				
12	<i>Divaswapna</i> [sleepy in day hours]				

13	<i>Jrumbha</i> [yawn]				
14	<i>Arochaka</i> [food tasting tasteless]				
15	<i>Angmarda</i> [body ache]				

Total score system

1. Severe type of *nidra vikara* – frequency of s. no. 1, 3, 6, 8, 10, 11, 12, 13, 15 is >1

2. Moderate type of *nidra vikara* – frequency of s. no. 1, 3, 8, 10, 11, 12, 15

3. Mild type of *nidra vikara* – frequency of s. no. 1, 3, 8, 12, 13

The following pro forma denotes the way of diagnosis of insomnia or severity of any other sleep disorder in conventional system of medicine^[14,15]

Problem	none	Mild	Moderate	severe	v. severe
1. Difficulty falling asleep	0	1	2	3	4
2. Difficulty staying asleep	0	1	2	3	4
3. Problem waking up too early	0	1	2	3	4

4. How satisfied are you with your current sleep pattern?

Very satisfied moderately satisfied satisfied dissatisfied very dissatisfied
0 1 2 3 4

5. How noticeable is your sleep problem in terms of impairing the quality of life?

Not noticeable a little in some quantity very much very noticeable
0 1 2 3 4

6. How worried are you about your current sleep problem?

Not worried a little in some quantity very much very worried
0 1 2 3 4

7. Is your sleep problem interfering with your daily chores currently?

Not at all a little in some quantity very much very interfering
0 1 2 3 4

Total Score System

1. Not clinically significant – score 0-7

2. Sub threshold insomnia – score 8-14

3. Clinical insomnia – score 15-21

4. Severe insomnia – score 22-28

OBSERVATION AND RESULTS

Table 3: Distribution of patients as per symptoms of *Anidra* [n=20] according to *charak nidravikara nidan padhati* are as follows.

Lakshanas (Symptoms)	Total	
Symptoms	Frequency	Percentage
<i>Shira shool</i> [headache]	17	85
<i>Staimityata</i> [body covered with something wet]	2	10
<i>Gurugatrata</i> [heaviness]	12	60
<i>Kshudamandyata</i> [anorexia]	4	20
<i>Hridayapralepa</i> [palpitation]	5	25
<i>Pinasa</i> [rhinitis]	2	10
<i>Urushoola</i> [chest pain]	4	20
<i>Tandra</i> [tiredness]	17	85
<i>Kasa</i> [cough]	4	20
<i>Smritipramoha</i> [difficulty in remembering]	4	20
<i>Indriyasamarthata</i> [poor alertness]	3	15
<i>Divaswapna</i> [sleep in day hours]	19	95
<i>Jrumbha</i> [yawn]	11	55
<i>Arochaka</i> [anorexia]	2	10
<i>Angmarda</i> [body ache]	16	80

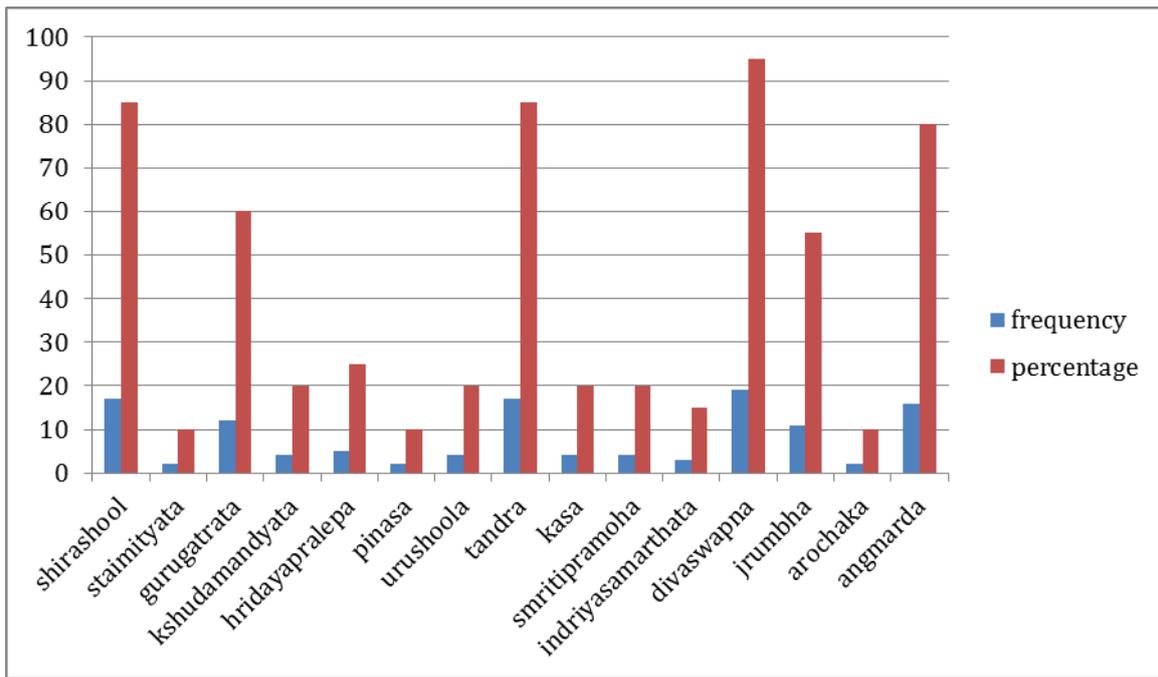


Fig. 1: Distribution of patients as per the lakshanas of Anidra.

Table 4: Distribution of patients of insomnia according to conventional system of medicine.

Problem	0	1	2	3	4
Difficulty falling asleep			6	14	
Difficulty staying asleep	1	3	6	10	
Waking up too early		1	8	10	1
Sleep pattern satisfaction		8	1	11	
Sleep impairing life quality		1	14	5	
Worrying about sleep problem		1	15	4	
Sleep interfering with daily chores		4	15	1	

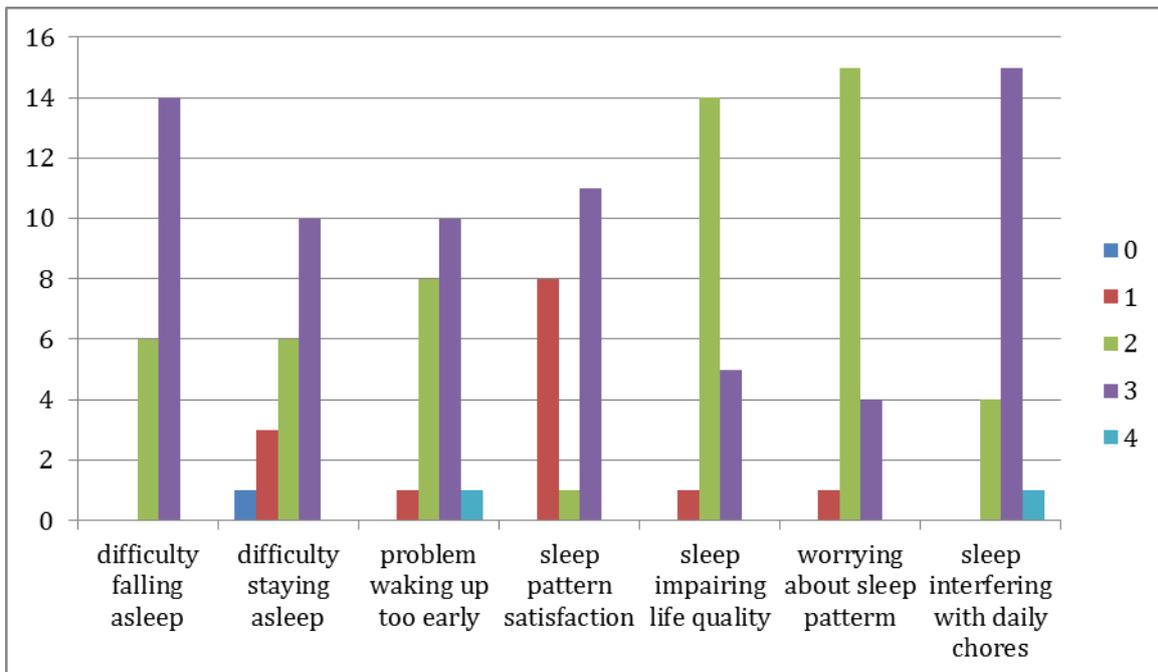


Fig. 2: Distribution of patients of insomnia according to conventional system of medicine.

DISCUSSION

1. Symptoms like *shira shool*, *gurugatrata*, *jrimbha*, *angmarda*, *divaswapna* and *tandra* were found in maximum number of patients of *Anidra*.
2. Symptoms like *staimityata*, *arochaka*, *indriyasamarthata*, *smritipramoh* etc were found in least number of patients of *Anidra*.
3. Maximum number of patients experienced automatic relief in symptoms like *shirashool*, *angmarda*, *tandra*, *gurugatrata*, *jrimbha*, *hridayapralepa* etc
4. Problems like difficulty falling asleep, difficulty staying asleep, waking up too early and sleep pattern dissatisfaction were severely affecting maximum number of patients.
5. Problems like impairment of life quality and worrying about sleep problem were moderately affecting maximum number of patients.
6. Acc. To *charak nidravikara nidan padhati*, out of the 20 patients, 1 patient was diagnosed with severe type of *Anidra*, 15 patients were diagnosed with moderate type of *Anidra* and 4 patients were diagnosed with mild type of *Anidra*.
7. Acc. To conventional system of medicine pro forma, out of the 20 patients, 1 patient was diagnosed with severe clinical insomnia, 17 patients were diagnosed with moderate clinical insomnia and 2 patients were diagnosed with mild insomnia.

CONCLUSION

Sleep disorders like *Anidra* have been a serious concern in the field of medical science as a point of treatment or perfect management. This problem is getting more serious day by day due hectic and fast life style and unhealthy dietary habits along with lack of exercise etc. hence it is very important to maintain a healthy lifestyle with a proper ratio between work, exercise and sleep. In this descriptive observational study, both *ayurvedic* and conventional system of medicine proformas were used for the diagnosis of *Anidra* i.e., insomnia. Out of the 20 patients, maximum was diagnosed with moderate form of *Anidra* from both the proformas. The most common symptoms were *shira shool*, *gurugatrata*, *jrimbha*, *angmarda*, *divaswapna* and *tandra*. Statistically significant correlation was found between the enlistment of both the proformas. Hence, it can be concluded that symptoms enlisted in the *samhitas* are similar to the symptoms enlisted in the conventional system of medicine.

REFERENCES

1. Charaka Samhita, Vidhyotini Hindi Tika, Chaukhamba Bharati Academy., Varanasi, Sutrasthana, 2001; 11(35): 227. [Google Scholar]
2. Panda S, Taly AB, Sinha S, Gururaj G, Girish N, Nagaraja D. Sleep related disorders among a healthy population in South India. *Neurol India*, 2012; 60: 68-74.
3. Sadock BJ, Sadock VA, Ruiz P. Kaplan and Sadock's Synopsis of Psychiatry: Behavioral

4. Sciences/Clinical Psychiatry. 11th ed. Philadelphia: Wolters Kluwer Medknow Publications, 2015; 538.
4. Melancon MO, Lorrain D, Dionne IJ. Exercise and sleep in aging: Emphasis on serotonin. *Pathol Biol.*, 2014; 62: 276-83.
5. Sharma S. Astanga Sangraha with Sasi-lekha Commentary by Indu, Edn 2, Chowkhamba Sanskrit Series Office, Vara-nasi 2008, 93.
6. Krishnamurthy KH, Bhela S, Chaukhamba Visvabharati, Varanasi, 2008; 448.
7. Acharya YT. Charaka Samhita with Ayurveda Deepika Teeka of Chakrapani Dutta. Choukhamba Sanskrit Sansthan, Varanasi, 2011; 119.
8. Padakara HSS. Ashtanga Hridaya with Sarvanga Sundari Commentry by Aruna-datta and Ayurveda Rasayana of Hemadri. Edn 9, Krishnadas Academy, Varanasi, 2005; 142-3.
9. Tripaty HP. Harita S. Chaukhamba Krishnadas. Edn 2, Academy, Varanasi, 2009; 330.
10. Trikamji J. Sushruta Samhita with Ni-bandha Sangraha commentary of Sri Dalhanacharya. Edn 6, Chauk-hamba Orientalia, Varanasi, 1997; 359.
11. Agnivesha, Charaka, Dridhabala, Charaka S, Edited by Vd. Jadavaji Trikamaji Acharya, Chaukhamba Surabharati Publications, Varanasi, 2001; 21: 57,119.
12. Acharya YT. Charaka Samhita with Ayurveda Deepika Teeka of Chakrapani Dutta. Choukhamba Sanskrit Sansthan, Varanasi, 2011.50
13. K.R.Srikanthamurthy. Madhavnidana. Rogavinischaya of Madhavkara; Chaukhamba Orientalia Soldatos, C.R., Dikos, D.G., & Paparrigopoulos, T.J. Athens Insomnia Scale: validation of an instrument based on ICD-10 criteria. *Journal of Psychosomatic Research*, 2000; 48: 555-560.
14. Zigmond, A. S., & Snaith, R. P. The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica*, 1983; 67: 361-370.
15. Rinky Thakur, Gopal CNanda, Pratibha CK, Jeena Pattnaik. Prospective Approach on Diagnosis and Management of Nidravikara (sleep disorder/Insomnia) in Ayurveda. *International Journal of Research in AYUSH and Pharmaceutical Sciences*, 2017; 1(1): 46-51.