

॥श्री धन्वंतरये नमः॥



शंङ्खं चक्रं जलौकां दधदमृतघटं चारुदोर्भिश्चतुर्भिः।
सूक्ष्मस्वच्छातिहृद्यांशुकपरिविलसन्मौलिमम्भोजनेत्रम्॥
कालाम्भोदोज्ज्वलाङ्गं कटितटविलसच्चारुपीताम्बराढ्यम्।
वन्दे धन्वतरिं तं निखिलगदवनप्रौढदावाग्निलीलम्॥

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For the degree of Vidyavachaspati (Ph.D.)

(Doctor of Philosophy) in the Ayurveda

SWASTHAVRUTTA

**“TO STUDY THE EFFECTS OF SATAT JAGARAN
(SLEEPLESS NIGHTS) ON HEALTH”**

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TRANSLITERY KEY

अ - a	आ - ā	इ - i	ई - ī
उ - u	ऊ - ū	ए - e	ऐ - ai
ओ - o	औ - ou/au	अं - ṁ	अः - ḥ
क - k	ख - ka	ख - kha	ग - g
ग - ga	घ - gha	घ - gha	ङ - ṅ
च - c	च - ca	छ - ch	छ - cha
ज - j	ज - ja	झ - jh	झ - jha
त्र - ṅ	त् - t	त - ta	थ - th
थ - tha	द - d	द - da	ध - dh
ध - dha	न - n	न - na	द - t
ट - ta	त् - th	ठ - tha	ड - d
ड - da	द - dh	ट - dha	ण - ṇ
ण - ṇa	प - p	प - pa	फ - ph
फ - pha	ब - ba	भ - bh	भ - bha
म् - m	म - ma	य - y	य - ya

व - v/w

व - va/wa

श - ś

श - śa

स - s

स - sa

ष - ṣ

ष - ṣa

ह - h

ह - ha

क्ष - kṣ

क्ष - kṣa

त्र - tr

त्र - tra

ज्ञ - jñ

ज्ञ - jña

ब - b

ब - br

Singular to plural made by adding 's' or 'as'.

ABBREVIATIONS

- च.सं - चरक संहिता
 सु.सं. - सुश्रुत संहिता
 अ.सं. - अष्टांग संग्रह
 हा.सं. - हारित संहिता
 का.सं. - काश्यप संहिता
 वा. - वाग्भट
 मा.नि.- माधव निदान
 भा.प्र. - भावप्रकाश
 अ.ह. - अष्टांग हृदय
 आ.श. - आयुर्वेदीय शब्दकोश
 वै.सू.सा. - वैद्यकीय सुभाषित साहित्यम्
 सू. - सूत्रस्थान
 नि. - निदानस्थान
 वि. - विमानस्थान
 चि. - चिकित्सास्थान
 इं. - इंद्रियस्थान
 उ. - उत्तरस्थान
 खि - खिलस्थान

DECLARATION

I hereby declared that the thesis entitled “TO STUDY THE EFFECTS OF SATAT JAGARAN (SLEEPLESS NIGHTS) ON HEALTH” completed and written by me has not previously formed the basis for the award of any Degree or other similar the upon me of this or any other University or examining body.

Vd. R. N. Kulkarni
Research Student

Place : Pune

Date : 28/08/2010

CERTIFICATE

This is to certify that thesis entitled “TO STUDY THE EFFECTS OF SATAT JAGARAN (SLEEPLESS NIGHTS) ON HEALTH” which is being submitted herewith for the award of degree of Vidyavachaspati (Ph.D.) in SWASTHAVRUTTA of Tilak Maharashtra University, Pune is the result of original research work completed by Shri VD.RADHESHAM N. KULKARNI under my supervision and guidance.

To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any degree or similar title of this or any other University or examining body upon him.

Prof. Dr.B.S. Keskar
Research Guide

Place : Pune

Date : 28/08/2010

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.....INTRODUCTION

INTRODUCTION

Ayurveda, the science of life has mentioned various principles, for well being of the humans. There are two basic aims of Ayurveda, which are mentioned in the following quote –

प्रयोजनं चास्य स्वस्थस्य स्वास्थ्य रक्षणम् आतुरस्य
विकारप्रशमनं च । च.सु.३०/२६

Ayurveda has mentioned the main aims as, to maintain the healthy status of a human being and secondly to cure the diseased ones. On observing these two aims, we can understand that, Ayurveda has given priority to keep the person healthy first and besides these efforts, if disease occur then cure it. This means that Ayurveda believes in maintaining good health, free from diseases. Because if the immune system of the body remains strong then the treatment of the disease will be short.

That means if someone wants to prevent his life from the disease then he should follow the principles mentioned by Ayurveda. These principles are mentioned in the form of various preventive measures as like yoga, sadavrutta (good behavior), Achara rasayana (good treatment), Dincharya (rules for daily regime), Rutucharya (rules for bi-monthly regime) etc.

त्रयः उपस्तम्भा इत्याहारः, स्वप्नौ, ब्रम्हचर्यमिति । च.सू.११/३५
त्रितयं चेदमुपष्टम्भनमाहारः स्वप्नो ब्रम्हचर्यं च । अ.सं.९/१८

Ahara (diet), swapna (sleep) and bramhacharya, these three pillars hold the body as like the house supported by the pillars. Out of these, ahara (diet) is one of the useful pillar of the life of human being. Ahara (diet) taken at proper time and in proper quantity maintains the health and power of man.

Nidra is the second useful pillar amongst this trio because it holds and enhances the man to remain active and fresh next day, as he was in past. Nidra gives rest to sensory organs, mind and body also.

In Ayurveda, obstruction or untimely generation of urges is said to be a prime cause i.e. Hetu of many diseases. A separate chapter is written in the three prime Samhitas (Brihattrayee) mentioning the vegas and their symptoms as well as their treatment.

In today's era of industrialization advanced techniques and research methods are applied for better economic gains. Due to this unwanted, unhealthy competition everyone is struggling to stay in the race. Naturally attention towards maintaining health is reduced.

For better economic gain man is neglecting towards his body needs as proper food at proper time, proper sleep at proper time i.e. at night etc.

Several million Indians work a shift work other than regular day shift. They have to face the problems of sleeping during the day and being alert on the job at night. Working schedule is different from most of the world. It would be challenging but following some simple guidelines may help to shift worker. It will be easier to live and safer too.

Two particular sleep related problems are associated with the sleepless nights. One is, difficulty for sleeping during the day and second is, difficulty staying alert at night. There is evidence that sleepless night (Satat Jagaran) can result in significant social & family problem and in an increased incidence of illness. Shift workers most affected are those who work nights (Generally between 11 PM to 7 AM).

The body's circadian rhythm is its alternating cycle of sleeping and waking. In healthy adults, sleep tends to occur during a particular phase of the circadian rhythm. Those who work in night shift must attempt to sleep when that person body wants to awake resulting in a contradictory relationship between sleep and the circadian rhythm.

Some researchers believe that complete adjustment to permanent irregular shifts may take as long as three years and other believe that the

body never fully adjusts to an abnormal sleep-awake schedule. Whichever is true, night worker tend to be continuously sleep deprived. The average sleep cycle for a shift workers sleeping during the day & night is two to four hours shorter than that of a day worker sleeping at night. Day sleep is light, fragmented and more likely to be disturbed. Sleep deprivation and associated health complaints can be severe in shift workers.

Shift work sleep disorder (SWSD), a newly recognized medical problem. SWSD is a latest edition to mankind's worries. It recognized lately that such individuals are at an increased risk of cardiovascular problems, gastrointestinal tract problems like irritable bowel syndrome, peptic ulcer and reproductive problems. They also suffers behavioral and psychiatric problems like anxiety and depression, even road accidents and difficulty in concentrating at work. They are more prone for vulnerable infections because of the suppression of the immune system which is due to the deficiency of sleep. Because of sleepless night (Satat Jagaran) man is either neglecting the natural urges like appetite, thirst, sleep flatus, fesces, urine etc or generating these urges voluntarily at his own convenience.

Many emergency services like Hospital, Police dept., Milk dairy, Electricity dept., Transport dept. and such other services has to work round the clock. The staff working in these dept. suffers lot of mental stress and strain along with physical. They have to work in shift. Being from medical profession it is our social & moral responsibility to care of these persons. No one can suggests to stop shift work but definitely one can guide them by giving various suggestions so that the health (professional) hazards can be minimized.

.....SELECTION OF TOPIC

SELECTION OF TOPIC

निद्रायत्तं सुखं दुःखं पुष्टीः काश्यं बलाबलम् ।

वृषता क्लीबता ज्ञानमज्ञानं जीवितं न च ॥

च.सू. २१/३६, अ.ह.सू.७/५३

Nidra (Sleep) maintains the happiness & unhappiness, nourishment and emaciation, strength and debility, sexual power and impotence, knowledge and ignorance (illiteracy), life and its absence (death). Thus the Samyak Nidra (adequate sleep) at proper time maintains physical and mental health.

Asamyak Nidra is main hetu (reason) for generating many diseases. So Nidra and its importance needs to be studied by all angles.

In our country, industrialization became very fast after our nation's independence. Production in various industries is gradually increased. People are working round the clock & hard.

Another factor is, our nation's population is very large and opportunity for work is very less. This is the reason that workers accept job which is getting them. People wants financial development fast and that also in short period. They do not give attention to personal health (swasthya) and family health. They are earning more money but their health (swasthya) is decreasing slowly. They do not care of Ahara and Nidra etc. People accept job which is in shift duty, permanent night shift unwillingly. They do overtime in duty for earning more money. People tries to adjust themselves in service. They do not get rest properly. Time and Duration of Nidra (Sleep) also changes as per shift and requirement.

Sleep disorders are common and upto one third of the general population is estimated to suffer from sleep disorders at some point during their lifetime. This results in impared academic or occupational

performance, accidents at work or while driving, disturbances of mood & social adjustment.

Along with other industry medical profession is also slowly recognized as medical industry. As this profession is an emergency service, peoples working in various hospitals always has to remain on toes. Any patient can become serious at any moment. Especially in night hours critical patient needs more attention & constant monitoring. Alongwith physical they suffer mental stress also. Inspite of having knowledge regarding hazards due to lack of night sleep, medical staff ignores this. In other industries also like - Sugar factory, Milk dairy, Tool factory etc.workers working round the clock. They have to remain awake in night shift. Ultimately they suffers from many health hazards. These hazards can be minimized by giving some simple suggestions as mentioned in Ayurveda.

It would be very interesting to observe if Satat Jagaran (Sleepless Nights) due to work result in a common set of symptoms and does Ayurveda have any solution to offer in the similar condition. Hence this topic “To Study the effect of Satat Jagaran (sleepless night) on health” is selected for research.

....AIMS & OBJECTIVES

AIMS & OBJECTIVES

1. To study the importance of Nidra.

In this work an attempt have made to get vivid concept about nidra, one of the Trayopstambha mentioned by Ayurveda. Alongwith this, efforts are also taken for the detail study of importance of sleep in the life of human being.

2. To study the effects of Satat Jagran (Sleepless Nights) on health.

.....PLAN OF WORK

PLAN OF WORK

The study was carried out in the following way -

REVIEW OF LITERATURE:

Thorough review of literature from Vedic era till date was carried out. Update review of work done by the other scientists is also taken into consideration.

QUESTIONNAIRE :

For this study a standard questionnaire had prepared. Total 600 persons having Satat Jagaran (Sleepless Nights) due to their work were selected for interview. Common health problems which found in these persons were notified and studied accordingly. Simultaneously other group of 100 persons those not having Satat Jagaran (Sleepless Nights) were interviewed. This questionnaire includes their personal information, questions regarding type of work, duration of jagarana & day sleep, frequency of illness. It also contains question about Dincharya. As this project is focused on labour health, suggestions from these persons also were recorded & common health problems were studied. In this way the relationship between Nidra, Jagaran and health defined.

INFORMED CONSENT:

Written consent was taken from each selected person before starting the project. The persons willingly participated and submitted information consent form (ICF) were enrolled in the project.

...MATERIALS & METHODS

MATERIALS & METHODS

Criteria of Selection :

The persons having Satat Jagaran and the persons not having Satat Jagaran were interviewed & studied accordingly.

Persons were selected irrespective of sex, religion and their economic status. A detailed proforma incorporating the Nidravardhjanya Laxanas & comorbid health complaints was prepared.

I. Baseline Assessment :

This includes a detailed history having personal history, economic status, exercise, addictions etc. It also includes type, duration, timing, frequency of work, Jagaran and Nidra (Sleep).

Clinical examination including Ashtavidha Parikshan (Prakruti Parikshan), weight and blood pressure was carried out.

II. Inclusion Criteria :

1. Persons willingly participated in the project and giving information consent form (ICF).
2. Age between 20 to 50 yrs.
3. Persons having Jagaran 7 days or more than that in a four weeks.

III. Exclusion Criteria

1. Persons unwillingly participating in the trial and not giving written information consent form (ICF).
2. Those having psychiatric disease and for that taking medication.

IV. Grouping :

Two groups were made.

Test group - Test group includes the persons having Satat Jagaran due to their work (Sleepless night). Total 600 in number.

Control group - Control group includes the persons not having Satat Jagaran. Total 100 in number.

V. Parameters for Assessment:-

A detailed proforma incorporating lakshnas was prepared.

These lakshnas were checked as per the pain, duration and frequency scale.

For duration 1 to 3 scale was given .

Grade 1 - Symptom absent.

Grade 2 - Symptom remains for short period.

Grade 3 - Symptom remains for long period.

For frequency 1 to 3 scale was given.

Grade 1 - Symptom absent.

Grade 2 - Intermittent symptom.

Grade 3 - Frequent symptom.

Observations were recorded accordingly.

VI. Statistical Analysis :-

The collected information put in master chart and with the support of statistical analysis conclusions were drawn. Pearson's Chi Squared test used for statistical analysis. Fisher's Exact Test used for count data.

...REVIEW OF LITERATURE

HISTORICAL REVIEW

a. Vedic Reference :-

We can get the references about Nidra from the period of veda. As we see for the word Nidra in the vedic era, we can get some references of the Rigveda, Yajurveda etc.

- ऋग्वेद -

Nidra is mentioned with different synonyms in the different period of veda. As e.g. in Rugaveda it is mentioned as “Svapna”.

न स्वप्नाय स्पृहयन्ति देवाः। ऋग्वेद ८/२/१८

In the above mentioned quote from Rigveda, it is clear that the gods were not having any sleep pattern. This is because they lacked the presence of tama guna. This highlights the fact that sleep is related to tama guna in the body. The people with the presence of satva guna had less sleep when compared to the ones with tama guna.

- योगनिद्रा -

We can also get the reference about the Yoga Nidra through vedic era. Yoga Nidra is particularly said to be the sleep at of God Vishnu at the end of a Yuga. As we know that the time period of the earth is divided in three yuga. They are Tetra yuga, Dwaper yuga and Kali yuga. The sleep of God Vishnu at the end of each yuga is termed as Yoga Nidra. रघुवंशम १०/१४

In other reference it is also mentioned that the Yoga Nidra is a great sleep of God Bramha during the period between the pralaya (destroy) and utpatti (To produce).

God Bramha creates life on earth where as God Vishnu maintains the life and finally God Shiva vanishes it. Hence the Yoga Nidra is said to

be the sleep of God Bramha, in between the period of formation of the new life on the earth up till its vanish.

- यजुर्वेद -

भूत्यै जागरणं अभूत्यै स्वप्नं। यजु.३०/१७

In the above quote of Yajurveda, it is mentioned that sleeping is unhealthy and awaking is healthier one. As we go through this quote we can know that it is the reverse therapy to that of Ayurveda. Ayurveda states that sleep helps in maintaining the life healthy, but as we consider the time period of the Yajurveda we can know that the persons of that period had very low quantity of sleep. Because the persons of that time period were of satavika temperament hence there was lack of the effect of tama guna over them. But if we consider this quote through different angle then we can also say that, it could be mentioned about the day sleep or taking too much sleep in the night period also.

b. Purana reference –

- स्कन्दपुराण -

ये स्वपन्ति सुखं रात्रौ तेषां कायाग्निरिध्यते
आहारं प्रतिगृह्यति ततः पुष्टिकरं परम् ।

वै.सु.सा.२१/११

Through above quote of skandapurana, benefits of Nidra are mentioned. It states that, the Nidra taken at proper time and in proper quantity increases the digestion power of the human being. Due to increase in the digestion power one can consume good quantity of food, which helps him to increase the power of body.

- गरुडपुराण -

सुखं स्वपित्यनृणवान् व्याधिमुक्तश्च यो नरः ।

सावकाशस्तु वै भुङ्क्ते यस्तु दारैर्न सङ्गतः ॥ वै.सु.सा.२१/१३

The person not having any runa (financial problem/loan), any vyadhi- i.e. vyadhimukta (disease free), always take meals slowly, and not doing sexual contact with wife always get proper nidra (good sleep) & stays happily.

सुखेन दान्तः स्वपिति सुखं च प्रतिबुध्यते । पद्मपुराण वै.सु.सा.२१/१५

Swastha purush (healthy person) takes nidra at proper time and wake up at proper time.

नैवऽग्निर्दीप्यते तेषां जठरश्च ततः परम् ।

आहारं वाञ्छते तैव तत्र तेजोऽभिवर्धनम् । स्कन्दपुराण वै.सु.सा.२१/१९

The side effects of lack of nidra are mentioned in this quote. Due to lack of nidra digestion of food doesn't occurs in a proper way. Ultimately that person doesn't feels agnidipti (appetite) and because of poor food intake tej (power) doesn't increases.

c. Smruti Sahitya –

- दक्षस्मृति -

प्रदोषपश्चिमौ यामौ वेदाभ्यासेन तौ नयेत ।

प्रहरद्वयं शयानो हि ब्रम्हभूयाय कल्पते । दक्षस्मृति वै.सु.सा.२१/८

Particular time period for a proper nidra is mentioned through above quote by Dakshasmruti. There are two terms mentioned in the above quote. These are one is pradosha prahara – it means the time period after the suryodaya and second is pashima prahara – it means the period before suryodaya.

There are four prahara in between these two periods. One prahara resembles 3 hours, it means the time between the suryast and suryodaya is considered

as 12 hours. Out of these 12 hours, six hour should be kept reserved for vedabhyas (study of veda) and remaining six hours should be used for nidra.

- **मनुस्मृति** -

अहोरात्रे विभजते सूर्यो मानुषदैविके ।

रात्रिः स्वप्नाय भूतानां चेष्टायै कर्मणामहः ॥ मनु. वै.सु.सा. २१/७

According to Manusmriti the Surya divides the ahoratra (whole day of human being and God) in two different parts. Out of which the ratra (night) is reserved for the nidra (sleep) and the day period is for doing karma (work). This quote highlights the basic therapy of nidra (sleep). Each created being of the earth should takes nidra only in ratri, leaving the day period for doing different types of karma.

d. Other references –

- **राजवल्लभ**

निद्रा सात्मीकृतानां दिवा रात्रौ च स्वपतां जागृतां वा

दोषो न भवति । राजवल्लभ

If any person satmya (accustomed) to diwaswapa (day sleep) or jagaran (not taking sleep at night time), it will not cause any dosha to that person.

- **चण्डकौशिक** -

निद्रा हि नाम प्राणिनां प्रथममिदं शरीरधारणनिमित्तम् ।

चण्डकौशिक वै.सु.सा २१/३

According to Chandakaushika Nidra is said to be the primary factor which holds up the life of all created beings.

चित्तं प्रसादयति लाघवमाददाति
प्रत्यङ्गमुज्वलयति प्रतिभाविशेषम् ।
दोषानुदस्यति करोति च धातुसाम्यमानन्दमर्पयति
योगविशेषगम्यम् । वै.सु.सा.२१/५

Nidra taken at proper time.

- Creates happiness in the mind (Prasannachitta).
- It helps to decrease the heaviness of the body (Laghav).
- It helps to create joy and happiness in the body organs (Anand).
- It creates the acting power of mind (Pratibha).
- It maintains the equilibrium in the dhatus (Dhatusamy).
- It also gives the happiness, as it would be due to yoga therapy.
- It means the happiness will be equal to that of happiness one can experience due to yoga.

- काव्यमीमांसा -

सम्यक स्वापो वपुषः परमारोग्याय । वै.सु.सा.२१/४

According to kavyamimansa, the person who takes a samyak nidra always remains paramarogya (healthy for long life).

- महाभारत -

नक्तंचर्या दिवास्वप्नंआलस्यं पैशुनं मदम् ।

अतियोगमयोगं च श्रेयसोऽर्थो परित्यजेत् ॥ वै.सु.सा.२९/१६

Mahabharata, the great epic of India history also mentioned the merits of nidra and demerits of keeping awake at nights. In the above quote it is mentioned that, the persons who are willing for good health, should not indulge in keeping awake at nights, sleeping in day time, laziness, addiction of bad things and such other factors.

- विक्रमचरित -

अत्यम्बुपानाद्विषमाशनाच्च दिवाशयाज्जरणाच्च रात्रौ

संरोधनान्मूत्रपूरीषयोश्च षडभिः प्रकारैः प्रभवन्ति रोगाः ॥ वै.सु.सा.३१/१२

According to Vikramcharita there are six main factors which can cause the disease. These are -

1. Atyambupana,
2. Vishamasan
3. Diwaswapa
4. Jagaran
- 5 & 6. Mala and mutra vidharan.

1. Atyambupana (consumption of too much quantity of water) -

It is also an important factor to create disease. Because consumption of more water decreases the power of agni (i.e. digestion power) which may lead into the agnimandya. According to Ayurveda most of the diseases generates through this reason.

2. Vishamasan (taking food at irregular time) -

This reason also helps to create the diseased condition in the body. In Ayurveda the rules for ahara (diet) are mentioned under the heading 'Ashtavida Ahara Vidhi Viseasayatana'.

3. Divaswapa (Sleeping in day time) -

It is also said to be the most dangerous amongst the disease creating factors. Day sleep increases Kapha dosha which can cause various diseases in the body.

4. Jagaran (keeping awake at night) -

This is also most common factor which can generate diseases. Keeping awake at night may cause various symptoms related to that of loss of sleep which may lead into diseases. Suppression of the urge of

sleep increases Vata and Pitta dosha and this condition gives rise to various diseases related to them.

5. Mala and Mutra Vidharan (Suppression of Urge of micturation & defecation) -

Mala and Mutra Vidharan are also the most important reasons which create diseases in the body. Suppression for the urges of mutra (urine) and of mala (stool) cause increase in vata dosha which creates diseased condition in the body. This is the most fatal condition amongst the above all as it may generate various diseases in the body.

निद्राभिमानिनी काली तामसी पूतिरिच्छते। वाचस्पत्यम् ८/४८५८

Above quote mentioned in the vachaspatya indicates the synonyms of Nidra as – Abhimanini, kali, tamsi etc.

कलिः शयानो भवति। ऐतरेय ब्राम्हण वै.सु.सा.६/१५

In above quote it is mentioned that Kali Yuga (present era) is of sleeping time. That is, there is more nidra (sleep) in the present era than that of remaining two. When there is decrease in the Satvika temperament in the human beings, then it ultimately increases the effect of tamasika temperament. Due to increase in tamasika temperament there is more influence of nidra (sleep) in the present era.

इयं हि निद्रा नयनावलम्बिनी

ललाटदेशादुपसर्पतीव माम्।

अदृश्यरूपा चपला जरेव या

मनुष्यसत्त्वं परिपूय वर्धते।। चारुदत्त वै.सु.सा.२१/२

In this quote Nidra is described as Nayanambilini. This Nidra is invisible, very much active & like old age. It grows with defiting mind.

- वैद्यकीय सुभाषित साहित्य -

अर्धरोगहरी निद्रा । वै.सु.सा.२१/६

One can know the importance of the nidra (sleep) in the life of man through the above quote. This quote indicates that nidra if taken at proper time and in proper quantity it helps in decreasing the threat of disease. If someone takes a good quantity of nidra at proper time during the diseased condition, then it helps in lowering the effect of the disease.

सर्व लोकाः समाच्छन्ना यथा योगेषु रात्रिषु इति ।

रात्रिषु योगेन समत्वेन । वाचस्पत्यम् भाग ६/४८५८

One can understand the effect of nidra through the above quote of Vachaspatya. The thing which covers all the created beings of the universe called as Nidra. Naturally it appears at the time of night and such type of Nidra maintains equilibrium in the body.

- वाचस्पत्यम् -

निद्रा च कालाग्निरुदपत्नी यथा कालाग्निरुदपत्नी च ।

निद्रा सा सिद्धयोगिनी ॥ भाग ६/४८५८

Yoga Nidra is also said to be the name of Goddess Durga. We can also get the references about the synonyms of Nidra through the Vachaspatya as Rudrapatni, Kalagni, Singhyogini etc. The word Rudra is indicated for the God Shiva and Patni is mentioned for the wife i.e. Parvati Durga. Hence collectively the word Rudrapatni means the Goddess Durga i.e. wife of the God Shiva.

- योगसूत्र

अभावप्रत्ययावलम्बना वृत्तिर्निद्रा । वै.सु.सा.२१/१

Nidra is a stage in which we can't experience absences of substances.

AYURVEDIC LITERATURE

- ✓ Nidra – Nirukti, Definition, Synonyms
- ✓ Nidra- references
- ✓ Importance of nidra
- ✓ Onset of nidra
- ✓ Types of nidra
- ✓ Rules of nidra
- ✓ Nidra and dosha sambandha
- ✓ Nidra – vyadhi hetu
- ✓ Hetu for nidranasha
- ✓ Nidravegdharanjanya lakshnas
- ✓ Chikitsa of nidranasha
- ✓ Jagaran – Nirukti, Definition, Synonyms
- ✓ Lakshnas (symptoms) studied in collected data due to jagaran

- **Nirukti of Nidra –**

निद्रा स्त्रीः निन्द्यते इति

निट् कुत्सायाम् + निन्टेर्नलोपश्च

उणां (२/१७) इति रक्नलोपश्च

- **Definition of Nidra –**

यदा तु मनसि क्लान्ते कर्मात्मानः क्लमान्विताः ।

विषयेभ्यो निवर्तन्ते तदा स्वपिति मानवः ॥ च.सू.२१/३५

According to Acharya Charaka 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 gets tired due to heavy work load then this combined stage leads into the sleep.

- **Synonyms of Nidra -**

१. स्यान्निद्रा शयनम् स्वापः स्वप्नः संवेशः इत्यपि । अमरकोष

In Amarkosha following are the synonyms mentioned for the Nidra.

Sayana, Swapa, Svapna, Savesha.

२. सुप्तीः स्वपनम् - शब्दरत्नावली

In Shabdaratnawali supti and swapha mentioned as synonyms for nidra.

३. We can broadly divide the synonyms of Nidra in the categories, according to the time period.

Vedic Kala

Samhita Kala

I. Vedic Kala -

In vedic era Nidra was mentioned by various synonyms as

1. Kalaagni
2. Rudrapatni
3. Singh yogini
4. Svapna
5. Kali
6. Tamsi
7. Durga
8. Abhimanini
9. Sayana
10. Savpa
11. Sanvesha
12. Nayanavalambini

II. Samhita Kala -

In Samhita kala the terms used for Nidra are

- | | | |
|---------------|----------------|------------|
| 1. Vaishanavi | 3. Bhutadhatri | 5. Pampula |
| 2. Tamobhava | 4. Tamasi | |

NIDRA – REFERENCES

आहारशयनाब्रम्हचर्यैर्युक्त्या प्रयोजितैः

शरीरं धार्यते नित्यमागारमिव धारणैः ।। अ.ह.सू.७/५२

Aahara (diet), Shayan (Nidra) and Bramhacharya if indulge with good sense then they holds body as that of pillars which holds a house.

त्रय उपस्तम्भा इत्याहारः स्वप्नो ब्रम्हचर्यमिति । च.सू.११/३५

त्रितयं चेदमुपष्टम्भनमाहारः स्वप्नो ब्रम्हचर्यं च । अ.सं.सू.९/१८

These three pillars hold the body as like the house supported by the pillars. Out of these Aahara (diet) is one the useful pillars of the life of human being. Aahara (diet) taken at proper time and in proper quantity maintains the health and power of man.

Nidra is the second useful pillar amongst the trio, because it holds the key of life. It restores the energy and enhances the man to remain active and fresh the next day as he was in past. Nidra gives rest to sensory organs, the mind and to the body also.

न वेगान् धारयेद धीमाज्जातान् मुत्रपुरीषयोः ।

न रेतसो न वातस्य न छदर्यो क्षवथोर्न च ।।

नोद्गारस्य न जृम्भाया न वेगान् क्षुत्पिपायसोः

न बाष्पस्य न निद्राया निःश्वासस्य श्रमणे च ।। च.सू.७/३-४

One should not suppress the adharniya vegas (natural urges) i.e. mutra, purisha, retasa, vata, jrumbha, kshudha, kshavathu, udgar, chardi, pipasa, bashpa, nidra and nishwasa.

वातविण्मूत्रजृम्भाऽश्रुक्षवोद्गार वमीन्द्रियैः ।

व्याहन्यमानैरुदितैरुदावर्तो निरुत्यते । सु.उ.५५/४

Acharya Sushruta mentioned that adharniya vegas (natural urges) like apanvayu, vishtha, mutra, Jrumbha, ashru, udgar, vaman, indriya should not suppress as far as possible. Because suppression of these urges creates udavarta.

वेगान्न धारयेद्वातविण्मूत्रक्षवतृक्षुधाम् ।

निद्राकासश्रमश्वासजृम्भाऽश्रुच्छ दिरेतसाम् ।

अ.ह.सू.४/१ अ.सं.सू.५/२

Acharya vagbhatta mentioned that following adharniya vegas (natural urges) should not be suppressed.

Vata urdhawarta & Adhovata –

Mala	-	faeces
Mutra	-	Urine
Khavathu	-	Sneezing
Trushna	-	Urge of drinking
Kshudha	-	Urge of hunger
Nidra	-	Sleep
Kasa	-	Cough
Shramaja shwasa (breathing after exertion)		
Jrumbha	-	Yawning
Aashru	-	Tears
Chardi	-	Vomiting
Retasa	-	Shukra (Semen)

IMPORTANCE OF NIDRA

निद्रायत्तं सुखं दुःखं पुष्टिः काश्यं बलाबलम् ।

वृषता क्लीबता ज्ञानमज्ञानं जीवितं न च ॥

च.सू.२१/३६, अ.ह.सू.७/५३, अ.सं.सू.९/२२

Sukha (happiness), dukha (unhappiness), pushti (good physique), karshya (emcipation), vrushta (sexual power), klibata (impotence), gyan (knowledge), and agyan (illiteracy), jivita (long life), ajivita (death) all these factors are depend on nidra.

Samyak nidra gives us sukha, pushti, bala, vrushta, gyan and jivan.

Asamyak nidra causes dukha, karshya, abala, klibata, agyan and ajivit.

In the above quote of Acharya Charaka and Acharya Vagbhata mentioned merits and demerits of sleep.

If someone has taken a good sleep in the night then he may remain happy and active the whole day. The sleep helps in building the body and general physique. But in the other hand if sleep not taken regularly then it may directly affect on the health. Also the next line of quote suggests the same thing through strength and disability. The strategy behind this is that the sleep not taken for 2 to 3 days or more affects mostly on the mind and the strength of the working organs.

Thus it can cause adverse effect on the body i.e. it may cause general debility. Sleep can also effect on the sexual power 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 aahara rasa (digested food) upto the sukra dhatu. The sleep can also affect the life of man thoroughly as it may also cause death if not taken for so many periods.

सैव युक्ता पुनर्युक्ते निद्रा देहं सुखायुषा ।

पुरुषं योगिनं सिद्ध्या सत्या बुद्धिरिवागता ॥ च.सू.२१/३८

The nidra (sleep) which was taken at proper time, period (saivayukta nidra) gives us aarogya and purnaayu (full term life) like the flashed true knowledge providing siddhi (accomplishment to yogi).

अचिन्तनाच्च कार्याणां ध्रुवं संतर्पणेन च ।

स्वप्नप्रसंगाच्च नरो वराह इव पुष्यति ॥ च.सू.२१/३४

Acharya Charaka described some factors in the treatment of Aatikrushata (leanness), achintanachya karya (freedom from anxiety about any work), paushtik aahar seven and lastly taking swapna (adequate sleep). These factors leads to bruhana and make the man like a varaha.

देहवृत्तौ यथाहारस्तथा स्वप्नः सुखो मतः ।

स्वप्नाहारसमुत्थे च स्थौल्यकार्श्ये विशेषतः ॥ च.सू.२१/५१

As proper aahar is required for maintenance of health similarly nidra as required for sukha and aarogya. Stholya and karshya depends on nidra.

पुष्टिवर्णबलोत्साहमग्निदीप्तिमतन्द्रिताम् ।

करोति धातुसाम्यं च निद्रा काले निषेविता । सु.चि.२४/८८

Nidra taken at proper time gives us pushti (good physique), varna (glowness of skin), bala (power), utsaha, agnidipti and dhatu samya.

रात्रौ जागरणं रुक्षं कफदोषविषात्तिजित् । निद्रा तु सेविताकाले

धातुसाम्यमतन्द्रिताम् । पुष्टिं वर्णं बलोत्साहं वह्निदिप्तिं करोति हि ॥

भा.प्र.पूर्वखंड ५/३१५

As per Acharya Bhavprakasha Jagaran causes rukshata (dryness) and decreases kapha dosha and poison intoxication. Samyak nidra (the sleep taken at proper time i.e. in night) maintains dhatu samya. It also gives pushti, bala, utsaha and agnidipti.

ONSET OF NIDRA

यदा तु मनसि क्लान्ते कर्मात्मानः क्लमान्विताः ।

विषयेभ्यो निवर्तन्ते तदा स्वपिति मानवः ॥ च.सू.२१/३५

Due to their karma, mana and indriya get tired (klanta) and it further leads to nidra. Therefore they (mana and indriya) withdraw from their vishaya.

Nidra (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 combinedly leads to the nidra (sleep).

लोकादिसर्गप्रभवा तमोमूला तमोमयी ।

बाहूल्यात्तमसो रात्रौ निद्रा प्रायेण जायते ॥

श्लेष्मावृत्तेषु स्त्रोतःसु श्रमादुपरतेषु च ।

इन्द्रियेषु स्वकर्मभ्यो निद्रा विशति देहिनाम् ।

सर्वन्द्रियव्युपरतौ मनोऽनुपुरतं यदा ।

विषयेभ्यस्तदा स्वप्नं नानारुपं प्रपश्यति ॥ अ.सं.सू.९/१९-२१

At the time of sarga, tamoguna is prominent and due to the prominence of tamoguna at night nidra occurs. Hence it is called as tamoguna and tamomayee.

Due to Avarana of Kapha i.e. shleshma in strotasa and due to shrama indriya retired from their karma and nidra occurs.

Nidra (sleep) is the illusive energy of the God and naturally it has its sway 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 Nidra is also called as ‘Tamo-mula’. Tamasa guna rises at its peak during the nidra (sleep) hence it is also named as ‘‘Tamomayi’’. Tamasa guna appears at night.

According to Ayurved there are three vital substances present in the body. These are – vata, pitta and kapha. These three regulates the body in normal condition and they may also cause diseases in their improper condition. Kapha plays an important role in the sleep of human being. Whenever there is rise in kapha or whenever naturally it has its sway then the sleep appearing at that time is called as normal sleep. It means that the kapha dosha and the tamasa guna of mind play an important role in the formation of the sleep. Following may be the reason for the urge of nidra (sleep) –

1. When kapha dosha get increases then it blocks the different systems of the body and this condition generally arises at night time, after meal. After taking meal, kapha dosha increases and due to this it blocks the working systems of the body. According to Ayurveda kapha normally shows its influence in the starting of the digestion, hence one can experience the effect of nidra (sleep) after taking meal. In this process our sense organs unable to do their proper work and ultimately this results in the nidra (sleep).
2. One can also experience the sway of sleep after doing heavy work. In this procedure our whole system get tired (not taking in account the type of work whether it may be of physical or mental). Therefore the sense organs of the body unable to do their work. Hence due to tiredness, we can experience the effect of Nidra (sleep).
3. We get knowledge of our surrounding due to our sense organs. But if these sense organs get tired or if they become unable to do their work properly then body shows the symptoms of Nidra (sleep).

हृदयं चेतनास्थानमुक्तं सुश्रुत ! देहिनाम् ।

तमोऽभिभूते तस्मिंस्तु निद्रा विशति देहिनाम् ॥ सु.शा.४/३४

निद्राहेतुस्तमः सत्त्वं, बोधने हेतुरुच्यते ।

स्वभाव एव वा हेतुर्गरीयान् परिकीर्त्यते ॥ सु.शा.४/३५

Acharya Sushruta said that hrudya is the seat of chetna in sharira. When this is invaded by tamoguna sharira gets nidra. Tamoguna is the cause for nidra and satva guna is the cause for bodhana. This is known as swabhavak cause.

Nidra (sleep) is the offspring of tamo guna and awaking process is the quality of satva guna. This is the fundamental law of nature.

कारणानां तु वैकल्ये तमसाऽभिप्रवर्धिते

अस्वपन्नपि भूतात्मा प्रसुप्त इव चोच्यते । सु.शा.४/३७

When indriayas got vaikalya and tamoguna is greatly increased then Bhutatma is said to be sleeping though he is actually not sleeping.

These are the important reasons for the nidra (sleep). If we glance through them then we can understand the importance of the nidra (sleep) for our daily work and also its importance for our body, sense organs and for the mind.

तमः कफाभ्यां निद्रा स्यान्मूर्च्छा पित्ततमोभवा

रजः पित्तानिलैर्भान्तिस्तन्द्रा श्लेष्मतमोनिलैः ॥

शा.सं.६/२३-२४

Aggrevation of tamoguna and kapha causes nidra. Tamas guna and pitta creates murcha. Because of aggrevation of rajas guna and vayu & pitta bhranti occurs. When tamas guna and vayu & kapha dosha aggrevates tandra occurs.

TYPES OF NIDRA

तमोभवा श्लेष्मसमुद्भवा च मनःशरीरश्रमसंभवा च ।

आगन्तुकी व्याध्यनुवर्तनी च रात्रिस्वभावप्रभवा च निद्रा ॥ च.सू.२१/५८

रात्रीस्वभावप्रभवा मता या तां भूतधात्रीं प्रवदन्ति निद्राम ।

तमोभवामाहुरघस्य मूलं, शेषाः पुनर्व्याधिषु निर्दिशन्ति ॥ च.सु.२१/५९

तमोभवा तमोगुणोद्रेकभवा मनःशरीरश्रमसंभवा मनःशरीरयोः

श्रमेण क्रियोपरमे सति नेन्द्रियाणि न च मनो विषयेषु प्रवर्तन्ते

ततश्च निद्रा भवति ।

आगन्तुकी रिष्टभूता व्याध्यानुवर्तिनी सन्निपातज्वरादिकार्या

रात्रिस्वभाव प्रभवात्प्रभवतीति

रात्रिस्वभावप्रभवा दिवा प्रभवन्ती तु निद्रा तमःप्रभृतीभ्य स्त्रीभ्य एव भवति ।

चक्रपाणी च.सू.२१/५८-५९

Acharya Charaka mentioned 6 types of Nidra as

1. Tamobhava
2. Shleshmasamdbhava
3. Manasharira shrama sambhava
4. Aagantuki
5. Vyadhyanuvartini
6. Rattriswabhavaprabhava.

These are -

1. Tamobhava -

Nidra which appears due to the excess of tamoguna of mana
(mind) called as tamobhava nidra.

2. Shleshma samudbhava -

Nidra which appears due to the excess of kapha dosh then it is called sleshmasamudbhava nidra. According to Chakrapani this type of nidra appears in the day time along with the tamoguna.

3. Mana sharira shrama sambhava -

Nidra which appears due to the tiredness of mana and sharira because of heavy work, then it is called as mana sharira shrama sambhava nidra.

Mental and physical exertion brings about inactivity of the mind resulting in the dissociation of the mind and the sense organs from their objects which is responsible for nidra . But if there is excessive exertion, this may cause vitiation of vata leading to nidra lessness. Thus even through exertion is the causative factor for nidra excessive exertion is responsible for the aggregation of vata, which causes anidra.

By nature, night serves as a causative factor for nidra . Nidra during day time is caused by tamas.

4. Aagantuki –

Aagantuki type of nidra (sleep) is caused due to bhayagand, pralap etc. (serious disease) and as such it is in itself incurable. According to Acharya Chakrapani this type of nidra is called as ristabhuta i.e. the nidra (sleep), which indicates the death signs.

As tamobhava nidra also indicates the symptoms of death along with the Aagantuki nidra but the difference between these two types is that, there is no reason for the Aagantuki nidra as like tamobhava nidra which have a reason in the form of increase in tamoguna of mind.

5. Vyadhyanuvaritini (Complication of other diseases) -

Nidra which appears due to diseases called vyadhyanuvaritini nidra. Normally nidra appears due to the influence of kapha dosha hence whenever there is increase in kapha dosha more than its normal quantity then the sleep appears at that time. This type of sleep is indicative of vyadhi i.e. disease.

6. Ratri svabhava prabhava –

Nidra which appears at the time of night called as ratri svabhava nidra. This is the normal type of nidra. It helps in maintaining the life of the human being hence also called as ‘Bhutadhatri’.

भूतानि प्राणिनो दधाति पुष्पातीति भूतधात्री धात्रीव धात्री ।
अधस्य पापस्य मूलमिति कारणम् । तमोगृहिता हि सदा
निद्रात्मकत्वेनानुष्ठेयं सदवृत्तं न करोति ततश्चाऽधर्मोत्पादः
व्याधिष्विति शारीरव्याधिषु ॥ चक्रपाणी च.सू.२१/५९

According to Acharya Chakrapani, nidra which helps in maintaining the life of human being healthy and happy is called as bhutadhatri. The word dhatri indicates, to take care or to hold up and the word bhuta is mentioned for the all created beings. Hence collectively the word bhutadhatri indicates human being or which holds up the life without causing any symptoms or diseases.

Again Acharya Chakrapani mentions in this quote that the tamobhava nidra is the base for the bad work. Tamas always causes excessive nidra. Thus the individual is unable to perform the virtuous rites and so he subjects himself to sinful behavior.

निद्रां तु वैष्णवी पाप्मानमुपदिशन्ति, सा स्वभावत एव सर्वप्राणिनोऽभिस्पृशति ।
 तत्र यदा संज्ञावहानि स्त्रोतांसि तमोभूयिष्ठः श्लेष्मा प्रतिपद्यते, तदा तामसी नाम
 निद्रा सम्भवत्यनवबोधिनी, सा प्रलयकालेः तमोभूयिष्ठानामहःसु निशासु च भवति,
 रजोभूयिष्ठानामनिमित्तं सत्वभूयिष्ठानामर्धरात्रे, क्षीणश्लेष्मणामनिलबहुलानां
 मनःशरीराभितापवतां च नैव सा वैकारिणी भवति ॥ सु.शा.४/३२
 वैष्णवी विष्णोरियं वैष्णवी मायैव । उल्हण सु.शा.४/३२

Types of nidra according to Acharya Sushruta –

Nidra is the illusive energy of the god and it has its effect naturally over all created beings.

The kind of nidra which sets in when the sensation carrying channels (strotasa) of the body are choked by kapha dosha (shleshma), which bounds the quantity of tamo guna, is known as ‘tamsi nidra’. This type of nidra produces unconsciousness at the time of death.

A person having tamas temperament had nidra (sleep) both in day and night. The one of rajas temperament had nidra (sleep) either in the day or night. While nidra never visits to the eyelids of the man before the midnight to the persons of satvika temperament.

The person with the deprived condition of the kapha dosha & aggravated condition of vata dosha or suffering from any type of troubles, get very little nidra or absolutely no nidra. This type of nidra is called as ‘vaikariki nidra’.

Thoroughly Acharya Sushruta divides the nidra in 3 types.

1. Vaishnvi.
2. Vaikariki
3. Tamsi

1. Vaishnavi Nidra –

This type of nidra is said to be a normal one and it is the energy of god, which helps in maintaining the life of human being. It is similar to that ratri svabhava prabhava nidra said by Acharya Charka.

2. Vaikariki Nidra –

It appears due to the enfeebled kapha dosha and aggravated vata dosha or due to any troubles of mana or sharira.

ननु यदा लङ्घनश्रमादिभिर्वायुर्वर्धते श्लेष्मा च क्षीयते

तदा कथं निद्रा उदेति ? डल्हण सु.शा.४/३३

According to Acharya Dalhana when there is heavy work load then there is increase in vata dosha ultimately decreasing the kapha dosha alongwith this the langhana (taking no food) also develops increase in vata dosha. Hence the nidra appearing in all these condition is called as “Vaikariki nidra.” This type of nidra resembles to that of four types of nidra mentioned by Acharya Charaka as –

- Shleshmasamudbhava
- Mana sharirashrama sambhava
- Agantuki
- Vyadhyanuvartini

3. Tamasi Nidra –

The nidra which appears due to influence of tama guna, called as tamasi nidra. It produces unconsciousness at the time of death. This type of similar with the tamobhava nidra said by Acharya Charaka.

कालस्वभावामयचित्तदेहखेदैः कफागन्तुतमोभवा च ।

निद्रा बिभर्ति प्रथमा शरीरं पापात्मिका व्याधिनिमित्तमन्या ॥४८॥

अ.सं.सू. ९/४८

Acharya Vrudha Vagbhata mentioned 7 types of nidra as –

1. Kalasvabhavaja
2. Aamayakhedaprabhavaja
3. Chittakhedaprabhavaja
4. Dehakhedaprabhavaja
5. Kaphaprabhava
6. Aagantuki
7. Tamobhava

1. Kalasvabhavaja Nidra –

It means the nidra which appears at proper time and it resembles to that of rastrisvabhava prabhava nidra of Acharya Charaka and to that of vaishnavi nidra of Acharya Sushruta.

2. Aamayakheda prabhava –

The nidra which appears due to the diseases present in the sharira called as aamaya kheda nidra. The word ama is used for the factor which generates in the sharira due to the undigested food. According to Ayurveda the ama is responsible for creating the various diseases. This type of nidra resembles to that of Vyadhyanuvartini type of Acharya Charaka and vaikariki nidra of Acharya Sushruta.

3. Chittakhedaprabhava nidra –

The nidra which appears due to the disturbances in the mind, called as chitta kheda prabhava nidra. This type resembles with manasharirashrama sambhava nidra of Acharya Charaka and vaikariki nidra of Acharya Sushruta.

4. Dehakhedaprabhava nidra –

The nidra which appears due to tiredness of the body called as deha kheda prabhava nidra. This type resembles with the mana sharira srama sambhava nidra of Acharya Charaka and vaikarki nidra of Acharya Sushruta.

5. Kaphaprabhava nidra –

Nidra which appears due to aggravated kapha dosha called as kapha prabhava nidra. Kapha dosha closely resembles with the tama guna of the mind and combinely they causes the nidra in the night. But when there is increase in the kapha dosha of the body, then the nidra also appears at daytime or may persist for longer time than the normal. In such condition the nidra is called as kapha prabhava nidra. This type resembles with the shleshmasamudhava nidra of the Acharya Charaka and vaikariki of Acharya Sushruta.

6. Agantuki nidra –

Agantuki nidra appears due to the external factors like accidents, injuries etc. Hence this type of nidra is considered as abnormal. This type resembles with that of agantuki type of nidra of Acharya Charaka and vaikariki type of Acharya Sushruta.

7. Tamobhava nidra –

This type of nidra appears due to the aggravated stage of tamo guna of mind. It results into the sinful behaviour. Therefore Acharya Sushruta and Acharya Charaka mentioned it as papamula (root of the bad works). This type of nidra mainly appears at the time of death. Acharya Charaka mentioned this as tamobhava nidra as like Acharya Vagbhata and Acharya Sushruta named this type as tamsi nidra. Acharya also mentioned that this type of nidra is dangerous for the life of man and may lead to death also.

RULES OF NIDRA

अकालेऽतिप्रसङ्गाच्च न च निद्रा निषेविता ।

सुखायुषी पराकुर्यात् कालरात्रिरिवापरा ॥

च.सू.२१/३७, अ.सं.सू.९/२३, अ.ह.सू.७/५४

Akal nidra (sleep taken at improper time), Atiprasanga nidra (excessive sleep), Nachsevita nidra (no sleep) these types of nidras (sleep) said as kala-ratri, which destroys aarogya and Ayusha of the individual. Para nidra gives sukha and Ayusha (sukhayushi).

If someone take nidra (sleep) excluding night is said to be akale sevita nidra.

Through the quote Acharya Charaka putforth, some basic condition about the Nidra mentioned in Ayurveda, which may create problems for healthy life.

These are -

1. Akale Sevita – Nidra (sleep) taken at improper time.

As mentioned in Ayurvedic text proper time of nidra (sleep) is at night. The nidra (sleep) which was not taken at proper time (in night) causes various health related problems.

2. Atiprasongata sevita - Nidra (sleep) taken in too much quantity.

Ayurveda mentioned specific time period for taking nidra (sleep) varying with different age groups. Excess of nidra (sleep) may cause problems as the persons may not feel fresh the whole day. Some persons may also feel the problem like laziness, not having any interest in doing any type of work or during the work they may also feel like getting nidra (sleep).

3. Nacha Sevita – Taking no nidra (sleep).

This is the most fatal condition for the life of the human beings as it may cause the serious problems with the mental health. There may be any reason for arising of such situation like diseased condition, due to continuous work in the night shifts etc.

अकालेसेविता मिथ्यायोगरूपा अतिप्रसङ्गात् सेविता ।
 अतियोगरूपा न च सेविता हीनयोगरूपा ॥
 निषेवता नियतत्वेन सेविता सम्यगयोगरूपा च ।
 चतुर्धा निद्रा तत्र परा चतुर्धा निद्रा सुखायुषी कुर्यात् ॥
 अपरा त्रिविधा असम्यगयोगरूपा कालरात्रिरिव ।
 संहारप्रवृत्ति महाकालीव सुखायुषी हन्यादित्यर्थः ॥ इति हेमाद्रि
 अ.ह.सू. ७/५४

In this particular quote of Acharya Vagbhata, Acharya Hemadri mentioned his comment as *asamyak yogarupa nidra* is said to be *apara nidra*.

These nidras are three types. One is *akale sevita mithayogarupa*, second is *atiprasanga sevita atiyogarupa* and third is *nachasevita hinyogarupa*. These three types of *nidra* are said to *kalaratri* which destroys *sukha* (happiness) and *ayu* (life).

Fourth type of *nidra* is *para nidra* which said to be *sukha ayushi nidra*.

In this particular quote of Acharya Vagbhata, Acharya Hemadri mentions his comment in the next few lines. In these lines he described these conditions in detail. He divides *Nidra* in 2 types.

i. *Apara Nidra*

ii. *Para Nidra*

1. *Apara Nidra* –

It consists of three different conditions of sleep.

i. *Nidra* (sleep) taken at improper time.

ii. *Nidra* (sleep) taken more than the normal period.

iii. Taking no nidra (sleep) at all.

These three types of nidra are usually said to be unhealthy for the life of human being. It destroys the life of man as kalaratri.

2. Para Nidra

It is also called as the fourth type of Nidra. Ayurveda described the daily worksheet for the human being in the Dincharya Adhyaya. The man should awake at Bramha Muhurta (1 to 2 hours before the sunrise), because it helps to keep the life healthy and happy.

Awaking after the rising of the sun indicates Aparā Nidra. Also sleeping at improper time and avoiding the urge for nidra (sleep), both the conditions are fatal for the life of human being. As these conditions can cause disturbance in the working systems of the body, which may lead into different diseases.

रात्रावपि जागरितवतां जागरितकालादर्धमिष्यते दिवास्वपनम् ।

...रात्रावपि जागरितवतां वातपित्तनिमित्तास्त एवोपद्रवा भवन्ति ॥ सु.शा.४/३८

Ratrijagaran creates vikar of vata and pitta dosha keeping awake at night causes increase in the vata and pitta dosha. Increase in these factors may lead into the symptoms or diseases related to them.

In this quote Acharya Sushruta mentioned that whenever ratri jagarana occurs then one must sleep in day (diwaswapa) in ardhamatra (half time of jagaran).

Keeping awake at night causes increase in the vata and pitta dosha.

Increase, in these factors may lead into the symptoms or disease related to them.

तस्मान्न जागृयाद्रात्रौ दिवास्वप्नं च वर्जयेत् ।

ज्ञात्वा दोषकरावेतौ बुधः स्वप्नं मितं चरेत् ॥ सु.शा.४/३९

One should avoid jagaran in night and sleeping in day time. These two factors creates disturbance in doshas. So wise man should take nidra at ratri (night) and avoid diwaswapa (day sleep).

In the starting period of night there is influence of kapha dosha naturally. The sleep causes due to the influence of two factors, one is the kapha dosha itself and the other one is the tama guna of mind. Both these factors are interrelated with each other. Hence if there is no sleep at night then ultimately it decreases the influence of kapha dosha which may lead into increased conditions of vata and pitta dosha. Due to this phenomenon the person feels the symptoms of vata and pitta originated diseases.

- **Nidra Satmyata -**

निद्रा सात्मीकृता यैस्तु रात्रौ च यदि वा दिवा ॥

दिवारात्रौ च ये नित्यं स्वप्नजागरणोचिताः ।

न तेषां स्वपतां दोषो जाग्रतां वा ऽ पि जायते ॥

सु.शा.४/४१

In above quote Acharya Sushruta mentioned about nidra satmyata. Those persons, due to their working pattern and circumstances became satmya (habitual) to ratrijagaran or diwaswapa (day sleep) it doesn't affect on their health.

दिवा वा यदि वा रात्रौ निद्रा सात्मीकृता तु यैः ।

न तेषां स्वपतां दोषो जाग्रतां चोपजायते ॥ भा.प्र.पूर्वखंड ५/२१९

If someone acquastamised to diwaswapa (day sleep) or ratrou nidra (night sleep), it will not cause any harm.

➤ DIWASWAPA -

• Need for Day Sleep in grishma rutu-

ग्रीष्मे त्वादानरुक्षाणां वर्धमाने च मारुते ।

रात्रीणां चातिसंक्षेपाद् दिवास्वप्नः प्रशस्यते ॥ च.सू.२१/४३

In the above quote Acharya Charaka also mentioned the need for diwaswapa (day sleep) in grishma rutu. In grishma rutu ratra (night) becomes sankshep (short) and vata gets aggravated in the sharir (body) due to the adana. Therefore during this rutu diwaswapa (day sleep) is recommended for all. Hence to maintain doshasamyata, the person should take diwaswapa (day sleep).

.....ग्रीष्मे वायुचयादानरौक्ष्यरात्र्यल्पभावात् ।

दिवास्वप्नो हितोऽन्यस्मिन् कफपित्तकरो हि सः ॥

मुक्त्वा तु भाष्ययानाध्वमद्यस्त्रीभारकर्मभिः

अ.सं.सू. ९/२५-२६ अ.ह.सू. ७/५६-५७

Diwaswapa is indicated in grishma rutu (summer). Vata sanchyay, ruksha guna vrudhi, alparatri (shortened night) these are the features of grishma rutu. To compensate (overcome) these factors one must take diwaswapa only in grishma rutu. The diwaswapa taken other than grishma rutu, causes kapha pitta dushti.

Through this quote Acharya Vrudha Vaghata mentioned the need of diwaswap (day sleep) in grishma rutu. In grishma rutu, naturally the vata dosha 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 vata dosha, ruksha guna (dryness properly) of body increases. Alongwith this the heat of grishma rutu also causes dryness in the environment causing increase in dryness of the body. Also the time period of the grishma rutu 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 diwaswap (day sleep) in grishma rutu.

Other than this season nidra taken in day time (diwaswapa) increases the kapha and pitta dosha of the body causing various diseases originating from themselves.

विरुद्धाध्यशनाजीर्णादामे चामे च पूरणात्.....।

भुक्त्वा भुक्त्वा दिवास्वप्नादतिरनानावगाहनात् ॥ का.सं.खि.१६/३-६

Viruddhashana (non-indicated cross-mix diet), Ajirna (repeated meals inspite of indigestion), diwaswap (day sleep) which was taken just after taking food, atisnana (excessive bath), awagaha (massage), these causes vata and other dosha prakopa.

• **Diwaswap Nishiddha (persons banned for day sleep) -**

ग्रीष्मवर्ज्येषु कालेषु दिवास्वप्नात् प्रकुप्यतः।

श्लेष्मपित्ते, दिवास्वप्नस्तस्मात्तेषु न शस्यते ॥ च.सु. २१/४४

According to Acharya Charaka taking diwaswapa (day sleep) is dangerous for the life of man and it may causes various diseases. They mentioned in the above quote that, taking diwaswapa (day sleep) except in the grishma rutu is hazards for the body and it should be avoided. Because it causes increase in the Kapha and pitta dosha and this condition may lead into the various diseases of these two doshas.

मेदस्विनः स्नेहनित्याः श्लेष्मलाः श्लेष्मरोगिणः।

दूषीविषार्ताश्च दिवा न शयीरन् कदाचन ॥ च.सू.२१/४५

In the above quote Acharya mentioned the list of persons which are banned for diwaswapa (day sleep). These are –

- Fatty person (medaswin).
- The persons who consume the diet of oily food daily in more quantity (Snehnitya) or those who are addicted to taking unctuous substances.

- The persons having their prakruti (constitution) of kapha dosha (shleshma) naturally.
- The persons who are suffering from the diseases due to the vitiation of kapha (shleshmarogi).
- The persons who are exposed to visha-dushi visha (poison of certain insect).

- **Persons banned for diwaswapa (day sleep)**

बहुमेदःकफाः स्वप्युः स्नेहनित्याश्च नाहनि ।

विषार्तः कण्ठरोगी च नैव जातु निशास्वपि ।।

अ.सं.सू.९/२९ अ.ह.सू.७/६०

Those who having excessive kapha and med (fat) in body, suffering from Kanthrog (throat disease) and visha (poison), should not take diwaswap (day sleep) in grishma rutu.

सर्वर्तुषु दिवास्वापः प्रतिषिद्धोऽन्यत्र ग्रीष्मात् । प्रतिषिद्धेष्वपि तु
बालवृद्धस्त्रीकशितक्षतक्षीणमद्यनित्ययानवाहनाध्वकर्मपरिश्रान्तानामभुक्तवतां
मेदः स्वेदकफरसक्तक्षीणानामजीर्णिनां च मुहुर्तं दिवास्वपनमप्रतिषिद्धम् ।

रात्रावपि जागरितवतां जागरितकालादर्धमिष्यते दिवास्वपनः ।

विकृतिर्हिदिवास्वप्नो नाम । तत्र स्वपतामधर्मः सर्वदोषप्रकोपश्च ।

तत्प्रकोपाश्च कासश्वासप्रतिश्याय शिरोगौरवाङ्मर्दारोचकज्वराग्निदौर्बल्यानि
भवन्ति । रात्रावपि जागरितवतां वातपित्तनिमित्तास्त एवोपद्रवा भवन्ति ।।

सु.शा.४/३७

Acharya Sushruta also mentioned the list of persons who are banned for diwaswapa (day sleep) as like Acharya Charaka.

• **Merits & Demerits of diwaswapa (day sleep) -**

धातुसाम्यं तथा ह्येषां बलं चाप्युपजायते ।

श्लेष्मा पुष्णाति चाङ्गानि स्थैर्यं भवति चायुषः । च.सु.२१/४२

In this quote Acharya mentioned the merits of the diwaswapa (day sleep) in the indicated person in previous quote. Diwaswapa (day sleep) maintains the dhatusatmya (equilibrium) amongst the dhatus of body. It increases the strength and power. Kapha dosha builds the body organs. Collectively the nidra causes a stable, happy and healthy life of human being.

रात्रौ जागरणं रुक्षं स्निग्धं प्रस्वपनं दिवा ।

अरुक्षमनभिष्यन्दि त्वासीनप्रचलायितम् ।

च.सू.२१/५० अ.ह.सू.७/५५

Acharya Charaka mentioned that jagaran (keeping awake at night) is dangerous for the life of man and it may lead into diseases. In the above quote they mentioned that jagaran (keeping awake in night) causes rukshata (roughness) in the body, while the diwaswapa (day sleep) causes snigdhatata (unctuousness) but taking nidra lightly in sitting position does not induce either of these conditions.

.....रात्रावपि जागरितवतां जागरितकालादर्धमिष्यते दिवास्वपनम् । सु.शा.४/३७

Keeping awake at night causes increase in the vata and pitta dosha. Increase in these factors may lead into the symptoms or diseases related to them.

In this quote Acharya Sushruta mentioned that whenever ratri jagarana occurs then one must sleep in day (diwaswapa) in ardhamatra (half time of jagaran).

● **Person requiring diwaswapa (day sleep) -**

गीताध्ययनमद्यस्त्रीकर्मभाराध्वकर्षिताः ।

अजीर्णिनः क्षताः क्षीणा वृद्धा बालास्तथाऽबलाः ॥ च.सू.२१/३९

तृष्णातीसारशूलार्ताः श्वासिनो हिक्किनः कृशाः ।

पतिताभिहतोन्मत्ताः क्लान्ता यानप्रजागरैः ॥ च.सू.२१/४०

क्रोधशोकभयक्लान्तादिवास्वप्नोचिताश्च ये ।

सर्व एते दिवास्वप्नं सेवेरन् सार्वकालिकम् ॥ च.सू.२१/४१

- In this quote Acharya Charaka enlisted the persons requiring diwaswapa (day sleep). Sleeping during the day time in all seasons is permitted for those who are exhausted by singing, study, alcoholic drinks, sexual acts, elimination therapy, carrying heavy weight, walking long distances, those suffering from ajirna (indigestion), wasting, thirst, diarrhoea, colic pain, dyspnoea, hiccup, insanity, those who are too old, too young, weak and emaciated, those injured by fall and assault, those exhausted by journey by a vehicle, vigil, anger, grief and bear and those who are accustomed to diwaswapa (day sleep).
- Those exhausted by singing etc. attain their normal health due to nourishment of their dhatus by sleeping during day time. Sleep during day time is especially useful for those suffering from diarrhea etc.
- If we see the previous quote of Acharya Charaka about the banned person for diwaswapa (day sleep), then we can understand that in these both quotes they mentioned the conditions of kapha and vata dosha respectively. That means the persons having working habit, diseases the environmental condition which increases vata dosha, must sleep in day time. The persons having working as habit, physical conditions, diseases or the environmental condition, which increases the kaphadosha of the body should not take the diwaswapa (day sleep).

रात्रौ जागरितानां च तज्जनिनतवातक्षोभशमनार्थम्
 दिवास्वप्नः स च क्षारपाणिवचनेन कर्तव्यः
 यदुक्तम् “यावत्कालं न सुप्तः स्यादात्रौ
 स्वप्नादयेथोचितात् ततोऽर्धमात्रं तत्कालं
 दिवास्वप्नो विधीयते” ।
 अयंच दिवास्वप्नोऽ भुक्तवतांमेव ।

च.सू.२१/३९-४२ चक्रपाणी टिका

With reference to the above quote of Acharya Charka, Acharya Chakrapani has made a special comment regarding diwaswapa including the opinion of Acharya Ksharapani. According to him the person who missed their sleep (jagarana) at night due to work, they should indulge in day sleep to minimize the vataksjobjanit (vata vrudhi) lakshnas. This particular comment Acharya Chakrapani made in his comment with reference to the quote of Acharya Ksharapani. Further he states that the persons who missed their sleep at night (jagarana) should consume the sleep half in the quantity (ardhamatram) to which they missed at night.

With this comment of Acharya Ksharapani, Acharya Chakrapani added his opinion. While taking the day sleep one should observed that the day sleep should be before meals.

यदुक्तम् “हारीते भुक्त्वा स्वप्नं न सेवेत्

सुस्थोप्ययसुखितो भवेत्” । च.सू.२१/३९-४२ चक्रपाणी टिका

With reference to the above quote of Acharya Charaka, Acharya Chakrapani has made a special comment regarding diwaswapa including the opinion of Acharya Harita.

According to Acharya Harita one should not indulge diwaswapa (day sleep) after meal, as it may change healthy status of a person into unhealthy one (asukhi).

क्रोधशोकभयैः क्लान्तान् श्वासहिध्मातिसारिणः ।

वृध्दबालाबलक्षीणक्षततृट्च्छूलपीडितान् ॥

अजीर्ण्यभिहत्तोन्मत्तान् दिवा स्वप्नोचितानपि ।

धातुसाम्यं तथा हयेषां श्लेष्मा चांगानि पुष्यति ॥ अ.सं.सू. ९/२७-२८

Acharya Vagbhata also mentioned the list of the persons requiring diwaswapa (day sleep) as mentioned by Acharya Charka. In the last line of this quote they added the benefits of the diwaswapa (day sleep) as it creates dhatusamya (equilibrium in the dhatus) and increased kapha dosha maintains the body properly.

Effects of sleep in improper time -

हलीमकः शिरःशूलं स्तैमित्यं गुरुगात्रता ।

अङ्गमर्दोऽग्निनाशश्च प्रलेपोहृदयस्य च ॥ च.सू.२१/४६

शोफारोच कह्ल्लासपीनसार्धावभेदकाः ।

कोठारु पिडकाः कण्डूस्तन्द्रा कासोगलामयाः ॥ च.सू.२१/४७

स्मृतिबुद्धिप्रमोहश्च संरोधः स्त्रोतसां ज्वरः ।

इन्द्रियाणामसामर्थ्यं विषवेगप्रवर्तनम् ॥ च.सू.२१/४८

भवेन्नृणां दिवास्वप्नस्याहितस्य निषेवणात् ।

तस्माद्विताहितं स्वप्नं बुध्वा स्वप्यात् सुखं बुधः ॥ च.सू.२१/४९

Halimaka (chlorosis), shirshula (headache), staimitya (cold sensation), gurugatrata (heaviness of body organs), angamarda (bodychae), agninasha (loss of appetite), feelings of as like plastering of heart, shoph(aoedema), arochaka (anorexia), hrullas (nausea), pinasa (rhinitis), ardhahedka (migraine), kotharu (Urticarial patches), pidaka(pustules and boils), kandu (itching) tandra (drowsiness), kasa (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 nidra (sleep), should takes nidra happily.

हलीमकशिरोजाडयस्तैमित्यगुरुगात्रताः ।

ज्वरभ्रममतिभ्रंशस्त्रोतोरुधाग्निमन्दताः ॥

शोफारोचकहृल्लासपीनसाधविभेदकाः ।

कण्डूरुक्कोठपिटकाकासतन्द्रागलामयाः ॥

विषवेगप्रवृत्तिश्च भवेदहितनिद्रया ।

अपच्यमानो बाहुल्यात्स्त्रोतांस्यावृणुते कफः ॥ अ.सं.सू. ९/३०-३२

Acharya Vagbhata also mentioned the some symptoms and the diseases as the side effects of the diwaswapa (day sleep) as mentioned by Acharya Charaka.

Diwaswapa (day sleep) is infact abnormality and as such those who sleep in day become victim of unrighteousness and aggrevation of doshas which gives rise to diseases such as Jwara, hrullas, arochaka, pinasa, ardhavbhedaka etc.

दिवा स्वापं न कुर्वीत येतोसौ स्यात्कफावहः ।

ग्रीष्मवज्येषु कालेषु दिवास्वप्नो निषिध्यते ॥ भा.प्र. पूर्वखंड ५/२१७

One should not sleep in day because it aggrevates kaphadosha. So except grishma rutu diwaswapa (day sleep) is not indicated in other rutu.

NIDRA & DOSHA SAMBANDHA

रात्रावपि जागरितवतां वातपित्तनिमित्तास्त एवोपद्रवा भवन्ति । सु.शा.४/३७

Ratrijagaran creates vikar of vata and pitta dosha. Ratri Jagaran causes increase in the vata and pitta dosha. Increase in these factors may lead into the symptoms or diseases related to them.

भुक्तमात्रस्य च स्वप्नाध्दन्त्यग्निं कुपितः कफः । मा.नि.ग्रहणी रोगाधिकार ४/१३

According to Acharya Bhuktmatrasya swapna (the sleep which was taken after food) causes vitiation of Kapha Dosha and it creates Agnimandya.

तमः कफाभ्यांनिद्रास्यान्मूर्च्छापित्ततमोभवा

रजः पित्तानिलैर्भ्रान्तिस्तन्द्राश्लेष्मतमोमिलैः ।

शा.सं.पूर्वखंड ६/२३

Aggrevation of tamoguna and kapha causes Nidra.

भोजनानन्तरं निद्रा वातं हरति पित्तहृत् ।

कफं करोति वपुषः पुष्टिसौख्यं तनोहि हि । भा.प्र.पूर्वखंड५/२२०

As mentioned by Acharya Bhavpraksha, the nidra (sleep) taken after meal causes increase in kapha dosha and simultaneously decreases vata and pitta dosha. Thus pushti occurs.

बहुमेदःकफाः स्वप्युः स्नेहनित्याश्च नाहनि ।

विषार्तः कण्ठरोगी च नैव जातु निशास्वपि ।।

अ.सं.सू.९/२९ अ.ह.सू.७/६०

The persons having bahumeda, bahukapha (predominance of kapha dosha), snehanitya should not sleep day time in grishma rutu also.

Visha rogi and kantharogi should avoid nidra not only in day time but also in ratri.

ग्रीष्मे वायुचयादानरौक्ष्यरात्यल्पभावतः ।

दिवास्वप्नो हितोऽन्यस्मिन् कफपित्तकरो हि सः ॥ अ.ह.सू. ७/५६

Diwaswapa is indicated in grishma rutu (summer). Vata sanchyay, ruksha guna vrudhi, alparatri (shortened night) these are the features of grishma rutu. To compensate (overcome) these factors one must take diwaswapa only in grishma rutu. The diwaswapa taken other than grishma rutu, it causes kapha pitta dushti.

रात्रौ जागरणं रुक्षं कफदोष विषार्त्तिजित् । निद्रा तु सेविताकाले
धातुसाम्यमत्न्द्रिताम् । पुष्टिं वर्णं बलोत्साहं वन्दिदितिं करोति हि ॥

भा.प्र.पूर्वखंड ५/३१५

As per Acharya Bhavprakasha Jagaran causes rukshata (dryness) and decreases kapha dosha and visha (poison intoxication). Sevittkale nidra (the sleep taken at proper time i.e. in night) maintains dhatusamya. It also gives pushti, bala, utsaha and agnidipti.

अधोवातमूत्रपुरीषस्य रोधात्
कषायातिशीतान्निशाजारेषु । हरितसंहिता

In Haritsanhita it is mentioned that malamutra vidharan, excessive kashaya rasa sevan, jagaran in night, aggravates vata.

कफ-मेदो-विषार्त्ताना रात्रौ जागरणं हितम् ।

दिवास्वप्नश्च तृट्शूलहिककाजीर्णातिसारिणाम् ॥ सु.शा.४/४८

Ratri jagaran is beneficial in persons having kapha, meda and visha (poison intoxication). Diwaswapa (day sleep) is beneficial for those suffering from trushna, hikka, ajirna & aatisar.

निशाजागरेणापि युद्धे श्रमे वा घनान्ते शरत्सुप्रकोपः । हरितसंहिता

Nisha Jagaran (ratri jagaran), yuddha (war), shrama (excessive exertion) and after change of season in sharad rutu, pitta prakopa occurs.

रुक्षशीताल्पलध्वन्नव्यवायातिप्रजागरैः

विषमादुपचाराच्च दोषासृक्स्त्रवणादति ।

मा.नि.२२/१ च.चि.२८/१५

Ruksha aahar, shita aahar, alpa aahar, laghu guna yukta aahar, atijagaran, ativayay, panchakarma mithyayog, atyadhik raktastrava all these leads to vataprakopa.

विरुद्धाध्यशनक्रोधदिवास्वप्नप्रजागरैः ।

प्रायशः सुकुमाराणां मिथ्याहारविहारिणाम् ।

स्थूलानां सुखिनां चापि कुप्यते वातशोणितम् ॥

मा.नि.२३/३ च.चि.२९/७

Virudhyashana, krodha, diwaswapna, prajagar (ratrijagaran) leads to vata and rakta dushti.

The diwaswapa taken excluding grishma rutu aggravates kapha dosha.

दिवा स्वापं न कुर्वीत येतोसौ स्यात्कफावहः ।

ग्रीष्मवर्ज्येषु कालेषु दिवास्वप्नो निषिध्यते ॥ भा.प्र.पूर्वखंड ५/२१७

One should not take diwaswap (sleep in day) because it aggravates kaphadosha. So except grishma rutu diwaswap (day sleep) is not indicated in other rutu.

जागरुकत्वम् द्रष्टव्यम् अनिद्रा अपिः

(वातस्यरुक्षत्वात्) प्रकृतैः वातजयः । च.वि.८/९८

Generally the persons having vataprakruti had poor sleep and capacity of excessive jagaran.

NIDRA - VYADHI HETU

विदाहयन्नं विरुद्धं च तत्तच्चाक्सृक्प्रदूषणम्।

भजतां विधिहिनं च स्वप्नजागरमैथुनम्।।

अ.ह.नि.१६/१ वातरक्त निदानम्

Vidhahi anna, virudha anna, raktadushti, vidhirahit nidra and jagaran are the hetu of vatarakta vyadhi.

धूमातपतुषाराम्बुक्रिडातिस्वप्नजागरैः।

उत्स्वेदाधिपुरोवातबाष्पनिग्रहरोदनैः।।

अ.ह.उत्तरस्थान २३/१ शिरोरोग निदानम्

Dhoom, aatapsevan, atiswapna, atijagaran, these are the hetu of shiroroga.

वातविण्मूत्रजृम्भाश्रुक्षवोद्गाद्वारवमीन्द्रियैः

क्षुत्तृष्णोच्छ्वासनिद्राणां धृत्योदावर्तसंभवः।।

मा.नि.२७/१ उदावर्त निदानम्

Vata, purisha, mutra, jrumbha, vegavarodha of nidra etc. These are the hetu of udavarta vyadhi.

अव्यायामदिवास्वप्नश्लेष्मलाहारसेविनः।

मधुरोऽन्नरसः प्रायः स्नेहान्मेदः प्रवर्धयेत्।।

मा.नि.३४/१ मेदरोग निदानम्

Avyayam, diwaswapna, shelshmal aahar are the hetu of medoroga.

माषमूलकपिष्टान्नतिलक्षीरगुडाशिनाम्।

व्यवायं चाप्यजीर्णेऽन्ने निद्रां च भजतां दिवा।।

मा.नि.४९/४ कुष्ठ निदानम्

Masha, mulak, pishatana, tila, kshir, guda, diwaswapa etc are the hetu of kushtha.

मधुरस्निग्धशीतानि लवणाम्लगुरुणि च ।

अव्यायामो दिवास्वप्नः शय्यासनसुखे रतिः ॥

मा.नि.५/७ अर्श निदानम्

Madhur, snigdha, shit, amla, lawana, guru aahar, avyayam, diwaswapna are the hetus of shleshmaja arsha.

रुक्षशीताल्पलध्वन्नव्यवायातिप्रजागरैः ।

विषमादुपचाराच्च दोषासृक्स्त्रवणादति ॥

मा.नि.२२/१ च.चि.२८/१५ वातव्याधी निदानम्

Ruksha aahar, shita aahar, alpa aahar, laghu guna yukta aahar, prajagar, ativayay, panchakarma mithyayog, atyadhik raktastrava all these leads to vatavyadhi.

विरुद्धाध्यशनक्रोधदिवास्वप्नप्रजागरैः ।

प्रायशः सुकुमाराणां मिथ्याहारविहारिणाम् ।

स्थूलानां सुखिनां चापि कुप्यते वातशोणितम् ॥

मा.नि.२३/३ च.चि.२९/७

Virudhyashana, krodha, diwaswapna, prajagar (ratrijagaran) leads to vata and rakta dushti.

शीतोष्णद्रवसंशुष्कगुरुस्निग्धैर्निषेवितैः ।

जीर्णाजीणै तथा ऽऽ यासंक्षोभस्वप्नप्रजागरैः ॥

मा.नि.२४/१ उरुस्तंभ निदानम्

Shita, ushna, drava, shushk, guru snigdha aahara, swapna, jagarana are the hetu of urusthambha.

व्यायामयानादतिमैथुनाच्च प्रजागराच्छित्तजलातिपानात् ।

कलायमुड्गदाढकिकोरदूषादत्यर्थरुक्षाध्यशनाभिघातात् ।

मा.नि.२६/२ शुलादि निदानम्

Vyayama, prajagara, atishita jalapana are the hetu of vatic shula.

HETU OF NIDRANASHA

एत एव च विज्ञेया निद्रा नाशस्य हेतवः ।

कार्यं कालो विकारश्च प्रकृतिर्वायुरेव च ॥ च.सू.२१/५७

Karyarata, kala, vikara, prakruti are the hetus of Nidranasha.

The following factors are responsible for the disturbance in the sleep.

1. Karya (Work) -

If work had done at night time or in heavy quantity can cause disturbances in the sleep. The person who work in night become more prone to the symptom of loss of sleep. Hence, ayurveda mentioned not to work in the night and not to sleep in the day time.

2. Kala (Time) -

The second factor that is kala. It is also important to the disturbances in the sleep. It is related with our life and affects directly on our sleep.

- Child age
- Adult age
- Old age

In the child age the child sleep more time of the day and in night also. But as age increases the time of sleeping goes on decreasing. In the child period naturally there is inference of kapha which causes more sleep in the children.

In adult age a person takes sleep accordingly, it means the time of sleep decreases then the child age. It remains near about 6 to 8 hrs.

In the old age there is inference of vata, dosha. Hence due to diminished kapha and aggravated condition of vata, the time of period of sleep decreases. Therefore the time period of the sleep remain upto the 4 to 5

hours approximately. Older person generally awake in the starting period of morning. Naturally vata dosha gets aggravated. Old age usually causes sleeplessness.

From the above discussion we can understand the relation between the age factor and the time period of sleep. Alongwith this the natural influence of the tridosha can also disturb the sleep pattern. According to Ayurveda, in these three stages of the age only one of tridosha remain dominant. Pitta dosha dominates younger age and in old age vata dosha remains active naturally.

According to above, one can know the strategy behind the more sleep in the child age and that of low sleep in the older age.

3. Vikara (Diseases) –

Some diseases may cause the disturbances in the sleep. Accordingly to Ayurveda particularly the diseases of vata origin can cause the loss of sleep. Because if there is increase in vata dosha then ultimately the kapha dosha decreases. Therefore the diseases influenced by increased vata dosha can cause disturbances in the sleep or loss of sleep.

4. Vayu (vata) -

Vata dosha itself causes loss of sleep. Naturally when there is influence of vata dosha in the environment then time period of sleep decreases.

This means naturally vata dosha increases in the end of night i.e. in the early morning.

5. Prakruti constitution –

According to Ayurveda there are three basic elements which builds up the life of human being. Vata, 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 vataja

prakruti (constitution) have less sleep than persons with any other constitution.

निद्रानाशोऽनिलात् पित्तान्मनस्तापात् क्षयादपि ।

सम्भवत्यभिघाताच्च प्रत्यनीकैः प्रशाम्यति ॥ सु.शा.४/४२

Vata pitta prakopa, manastapa, kshaya, abhigat are the causes of nidranasha.

Acharya Sushruta mentioned reasons for loss of sleep. These are

1. Due to aggravated condition of vayu.
2. Due to aggravated condition of pitta.
3. Due to the mental harassment or aggravated stage of mind.
4. Due to weakness or loss of vital fluid from the body.
5. Due to accidents, hurt or any injury.

These conditions can be brought under control by doing the antagonistic treatment of the above said factors.

1. Aggravated conditions of vata dosha can cause loss of sleep.
2. Aggravated conditions of pitta dosha can also cause the disturbance in the sleep.
3. Mind also plays an important role in the loss of sleep.

Tamo guna of mind helps in creating the sleep. It associates with the kapha dosha and helps in formation of sleep. When our mind gets disturbed due to any subject, then it will increase rajo guna of the mind. Rajo guna closely resembles with the vata dosha. Hence increase in rajo guna ultimately diminishes the effect of tamo guna. Due to increase in rajo guna there is loss of sleep.

4. Weakness may also cause the loss of sleep. According to ayurveda weakness generally occurs due to the dominated vata dosha of body. Ruksha guna of vata dosha causes weakness in the body.

5. Accidents, hurt or injury may also cause loss of sleep or disturbance in the sleep. In Ayurveda this term is mentioned as 'Abhighataja vyadhi'. Traumatic injury from outside cause pain in the body. Due to this, nervous system gets disturbed and therefore there is disturbance in the sleep. Pain is termed as Shula in ayurveda and it is a primary symptom of vata dosha. Hence increase in shula ultimately causes increase in vata dosha which directly effects on the sleep.

Acharya Sushruta mentioned these five factors for disturbance in sleep or causing loss of sleep.

एत एव च विज्ञेया निद्रानाशस्य हेतवः ।
 कालशीलक्षयो व्याधिर्वृद्धिश्चानिलपित्तयोः ॥ अ.सं.सू. ९/३६
 एतान्येव कालस्य निद्रानाशः हेतुः प्रभावादौ सा न भवति
 शीलमभ्यासः तेन यस्य यस्मिन्काले निद्रानिवृत्तिरभ्यसता
 तस्य तस्य तस्मिन् काले सा भवतीति
 तथा क्षयो धातुनाम् निद्रानाश कारणम् व्याधिश्चान्यो ज्वरादिः
 वातपित्तयोश्च वृद्धिः । इन्दु अ.सं.सू.९/३६

Kala, dhatukshaya, vyadhi (jwaradi vyadhi) and vatapitta vrudhi are the hetus of Nidranasha.

According to Vrudha vaghbhat following are the reasons for the loss of sleep.

1. Kala (Time)
 2. Shila (Satmya or habituated)
 3. Kshaya (loss of power)
 4. Vyadhi (Disease)
 5. Vata & pitta dosha vrudhi
- Kala factor is responsible for loss of sleep as there is no sleep or there is no urge of sleep in the early morning period.

- Shila means abhyasa (study or habit). Those who get habituated to awake at a specific time, they will not set the sleep beyond that time.
- Kshaya means weakness or loss of power. This factor can also cause loss of sleep. Due to this condition the dhatus gets deprived in their action or during this condition there may be loss of vital fluids of the body. This condition may cause loss of sleep.
- Vyadhi means disease. Many diseases like fever etc. may cause loss of sleep. Most probably the diseases associated with that of vata dosha causes of loss of sleep than any other factors.
- Dosha vrudhi means increase in doshas of the body. The increase in vata and pitta dosha can cause the Nidranasha.

NIDRAVEGDHARANAJANYA LAXNAS

जृम्भाडमर्दस्तन्द्रा च शिरोरोगोऽक्षिगौरवम् ।

निद्राविधारणात्तत्र स्वप्नः संवाहनानि च ॥ च.सू. ७/२३

संवाहनं पाणिनां पादादिप्रदेशोसुखमभिहननमुन्मर्दनं च । चक्रपाणि ७/२३

According to Acharya Charaka following are some symptoms which appears due to nidravegdharana (suppression of urge) of sleep.

Jrumbha (Yawing)

Angamarda (Bodychae)

Tandra (Drawsiness)

Shiroroga (Disorders related to head)

Akshigaurva (Heaviness in eyes)

The treatment for the nidravegdhavanjanya lakshnas are to take proper nidra (sound sleep) and sanvahanam (massage) over the hand and foot.

निद्रानाशादङ्गमर्दशिरोरोगवजृम्भिकाः ।

जाडयग्लानिभ्रमापक्तितन्द्रा रोगाश्च वातजाः ॥

अ.ह.सू. ७/६४ अ.सं.सू. ९/३७

According to vrudha vagbhata the symptoms of nidravegdharona are –

Angamarda	Bhrama
Shiroroga	Aapakti
Jrumbhika	Tandra
Jadya	Vataja roga
Glani	

निद्राया मोहमूर्धाभिक्षगौरवालस्यजृम्भिकाः ।

अङ्गमर्दश्च तत्रेष्ट स्वप्नः संवाहनानिच ।

अ.ह.सू..४/१२ अ.सं.सू.५/१५

According to Laghu Vagbhatacharya nidravegdharanjanya laxnas are moha, murdha, akshigaurav, aalsya, jrumbha and angamarda. These symptoms may disappear by taking proper nidra (good sleep) and doing sanvahanam (massage).

निद्राविघाततो जृम्भा शिरोलोचनगौरवम् ।

अङ्गमर्दस्तथा तन्द्रा स्यादन्नपाक एव च ॥ भा.प्र.पूर्वखंड ५/११

As per Acharya Bhavprakash nidravegvidharan causes jrumbha, shirolochangaurav (heaviness in eyes and head), angamarda, tandra and annapak (improper digestion of food).

जृम्भाऽङ्गमर्दोऽङ्गशिरोऽक्षिजाड्यं निद्राऽभिघातादथवाऽपि तन्द्रा ॥

सु.उ.५५/१७

According to Acharya Sushruta the nidraudavartaja lakshnas are

Jrumbha	Shiroroga	Tandra
Angamarda	Akshijadya	
Angajadya	Nidra abhighta	

Acharya Sushruta mentioned the above quote in udavartaja topic in uttarshthana. Acharya Sushruta mentioned the side effects of vegadharna in the udavartaja adhyaya and he termed them as udavarta.

According to them the procedure of holding the urge is udavarta.

This word closely resembles with the vata dosha and vata also increases due to suppression of vega (urge).

रात्रावपि जागरितवतां वातपित्तनिमित्तास्त

एवोपद्रवा भवन्ति । सु.शा.४/३७

त एव कासश्वासादय एव डल्हण सु.शा.४/३८

According to Acharya Sushruta jagaran (keeping awake at night) can cause the symptoms of aggravated condition of the vata and pitta dosha.

In the above quote Acharya Sushruta mentioned that the nidravagadharanjanya lakshna resembles to that of the diseases of vata and pitta. They mentioned the list of the symptoms as

Kasa

Swasa

Pratisyaya

Shirogaurava

Angamarda

Arodhaka

Jwara

Agnidaurbalya

अकालशयनान्मोहज्वरस्तैमित्यपीनसाः ।

शिरोरुक्शोफहृल्लासस्त्रोतरोधाग्निमन्दताः । अ.हृ.सू. ७/६१

Akale nidra (sleep taken at odd time) causes moha, Jwara (fever) pinasa (Rhinitis), shirogaurava (headache), Hrulas (nausea) and Strotarodha (blockage of various channels).

- **Jrumbha -**

पीत्वैकमनिलोच्छाससमुद्वेष्टन् विवृताननः ।

यं मुश्चति सनेत्रास्त्रं स जृम्भ इति संज्ञितः ॥ सु.शा.४/५०

It can be defined as the process in which one prolonged inhaling of the air through a widely open mouth and subsequent exhaling with the contraction of the limbs and tearful eyes together occurs.

- **Klama -**

योऽनायासः श्रमो देहे वृद्ध श्वासवर्जितः ।

क्लमः स इति विज्ञेय इन्द्रियार्थप्रबाधकः ॥ सु.शा.४/५१

A sense of fatigue without any physical work which comes upon a person unaccompanied by hurried respiration, obstructs the proper function of the sense organs and the working of the active organs.

- **Aalasya -**

सुखस्पर्शप्रसंज्ञित्वं दुःखद्वेषणलोलता ।

शक्तस्य चाप्यनुत्साहः कर्मस्वालस्यमुच्यते ॥ सु.शा.४/५२

Attachments to pleasant touches, aversion to difficulties, greediness and loss of enthusiasm in activities in spite of capacity is known as Aalasya.

- **Utklesha -**

उत्किलश्यान्नं न निर्गच्छेत् प्रसेकष्टीवनेरितम् ।

हृदयं पीड्यते चास्य तमुत्कलेशं विनिर्दिशेत् ॥ सु.शा.४/५३

Nausea without vomiting of ingested food attended with salivation and formation of sputum along with cardiac pain, these are the symptoms of Utklesha.

- **Glani -**

वक्त्रे मधुरता तन्द्रा हृदयोद्वेष्टनं भ्रमः।

न चान्नमभिकाडक्षेत ग्लानिं तस्य विनिर्दिशेत् ॥ सु.शा.४/५४

A sweet taste in the mouth, drowsiness and feeling as like the heart is wrapped, dizziness and non-relish for food are the signs of glani.

- **Gaurav -**

आर्द्रचर्मावनद्धं वा हि यो गात्रमभिमन्यते।

तथा गुरु शिरोऽत्यर्थे गौरवं तद्विनिर्दिशेत् ॥ सु.शा.४/५५

A feeling as like the whole body is wrapped in the wet sheet, accompanied by an extreme heaviness of the head is called as gaurav.

- **Murcha -**

मूर्च्छा पित्ततमःप्राया, रजःपित्तानिलाद् भ्रमः।

तमोवातकफात्तन्द्रा निद्रा श्लेष्मतमोभवा ॥ सु.शा.४/५६

Murcha is produced by predominance of pitta and tamoguna; bhrama (giddiness) by increase of rajoguna, pitta and vata; tandra (stupor) by predominance of tamoguna, vata and kapha; and nidra (sleep) is by a predominance of shelshma (kapha) and tamoguna.

- **Tandra -**

इन्द्रियार्थेष्वसंप्राप्तिर्गौरवं जृम्भणं क्लमाः।

निद्रार्तस्येव यस्येहा तस्य तन्द्रां विनिर्दिशेत् ॥ सु.शा.४/४९

When the sense organs becomes unable to take their subject properly, when there is heaviness in the body, excessive yawning, when there is feelings of sense of fatigue without any physical strain i.e. klama and there is sensation of sleep. This is combined state of the symptoms arising in the body can be named as Tandra.

इन्द्रियार्थाः शब्दादयः तेषां असंप्राप्तिः अग्रहणम् ।

निद्रार्तस्येव निद्रायुक्तस्येव ।

परं निद्रायां प्रबोधितस्य क्लमाभावः तन्द्रायां तु

प्रबोधितोपि क्लाम्यति अतएवात्र क्लमग्रहणम् । उल्हण सु.शा.४/४९

Acharya Dalhana comments on this quote of Acharya Sushruta and described that the sense organs becomes unable in their proper functioning and the Klama remains absent in the para type of nidra but in the tandra state it appears with its symptoms.

- **Angamarda-**

अङ्गोद्वेष्टनमिव वेदना, स्फुटनिका इत्यन्ये । आ.श.उल्हण सु.उ.५५/१५

Pain all over body is called as Angamarda.

- **Apakti -**

श्लेष्मविकाराञ्च विंशतिमतउर्ध्व बलासकश्च, अपक्तिश्च

.....व्याख्याता भवन्ति

रोगः विंशतिश्लेष्मविकारेषु एकः । च.सू.२०/१७

Apakti is one of the disease of Kapha (Shleshma). Satat Jagaran causes agnimandya and it creates Apakti.

CHIKITSA OF NIDRANASHA

अभ्यङ्गोत्सादनं स्नानं ग्राम्यानुपौदका रसाः ।

शाल्यन्नं सदधिकीरं स्नेहो मद्यं मनः सुखम् ॥ च.सू.२१/५२

मनसोऽनुगुणा गन्धाः शब्दाः संवाहनानि च ।

चक्षुषोस्तर्पणं लेपः शिरसः वदनस्य च ॥ च.सू.२१/५३

स्वास्तीर्णशयनं वेश्म सुखं कालस्तथोचितः ।

आनयन्त्यचिरान्निद्रां प्रनष्टायानिमित्ततः ॥ च.सू.२१/५४

Following are some useful measure for the chikitsa of nidranasha.

Abhyanga (doing massage), utsadana (applying the medicated powder over the body), snana (bath), consuming diet like mamsarasa (soup) of the animals from the jaliya (aquatic), anupa (hydrotic), gramya (wild) etc. These are some measures for chikitsa of nidranasha.

The diet like Sali (old rice) with curd, consuming milk, ghee, alcohol, hearing the word which gives pleasure to the mind. Doing certain measures as like savahana (pressing the body), akshi tarpana (application of the medicated drops in the eyes), siro lepa (application of the medicated paste over the head), vadana 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 nidravega dharana (holding the urge).

निद्रानाशेऽभ्यङ्गयोगो मूर्ध्नि तैलनिषेवणम् ।
 गात्रस्योद्वर्तनं चैव हितं संवाहनानि च ॥
 शालि-गोधूम-पिष्टान्न- भक्ष्यैरैक्षव संस्कृतैः ।
 भोजनं मधुरं स्निग्धं क्षीरमांसरसदिभिः ॥
 रसैर्बिलेशयानां च विष्किराणां तथैव च ।
 द्राक्ष सितेक्षुद्रव्याणामुपयोगो भवेन्निशि ॥
 शयनासनयानानि मनाज्ञानि मुदूनि च ।
 निद्रानाशे तु कुर्वीत तथान्यान्यपि बुद्धिमान् ॥ सु.शा.४/४३-४६

Acharya Sushruta also mentioned the treatment for the nidranasha, which is the similar to that of maintained by Acharya Charaka. Some different measures said by Acharya Sushruta are-

Abhyanga (anointing the body), siroabhyanga (massaging or rubbing the oil on the head), diet consisting of the cakes made up of sali rice and wheat prepared with sugar or other derivatives of the sugar cane or soothing articles with milk or meat juice, blesh of animals of biskira or vilesaya, eating grapes, sugar or sugar cane at night, are some beneficial measures for the nidranasha. 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 nidravegadharana. Hence a wise person should advice these and similar other measures to alloy the symptoms of nidravegadharana.

शीलयेन्मन्दनिद्रस्तु क्षीरमिक्षुरसं रसान् ।।
 आनुपौदकमांसानां भक्ष्यान गौडिकपैष्टिकान् ।
 शालीन्मदयानि माषांश्च कीलाटाण्माहिषं दधि ।।
 अभ्यंगोद्वर्तनंस्नानमध्दश्रवणपूरणम् ।
 चक्षुषस्तर्पणं लेप । शिरसो वदनस्य च ।।
 प्रवाते सुरभौ देशे सुखां शय्या यथोचिते ।
 संवाहनं स्पर्शसुखं चित्तज्ञैरनुजीविभिः ।।
 सर्पिः क्षीरानुपानं च जीवनीयैः शृतं पिबेत् ।
 कान्ताबाहुलताऽऽश्लेषो निर्वृत्तिः कृतकृत्यता ।।
 मनोऽनुकूला विषयाः कामं निद्रा सुखप्रदाः ।
 ब्रम्हचर्यरतेर्ग्राम्यसुखनिस्पृहचेतसः ।।
 निद्रासन्तोषतृप्तस्य स्वं कालं नातिवर्तते । अ.सं.सू.९/४१-४७
 शीलयेन्मन्दनिद्रस्तु क्षीरमदयरसान् दधि ।
 अभ्यङ्गोद्वर्तनस्नानमूर्धकर्णाक्षितर्पणम् ।
 कान्ताबाहुलताश्लेषो निर्वृत्तिः कृतकृत्यता ।।
 मनोऽनुकूला विषयाः कामं निद्रासुखप्रदाः ।
 ब्रम्हचर्यरतेर्ग्राम्यसुखनिस्पृहचेतसः ।।
 निद्रा सन्तोषतृप्तस्य स्वं कालं नातिवर्तते । अ.ह.सू.७/६६-६८

Acharya Vagbhatta dvaya mentioned these measures for the persons specially suffering from low nidra (sleep) or totally nidranasha. They mentioned some additional measures than the Acharya Charaka and Acharya Sushruta. Comforting embrace by the arms of wife, harboring the feeling of satisfaction (feeling like we have done good things) and restoring to the things which are comfortable to the mind as much as desired, these brings about the pleasure.

For those who follow the regime of celibacy, who are not very crazy about sexual intercourse and who are contended with happiness, nidra (sleep) will not be very late to them than its regular time.

JAGARAN

- **Nirukti of Jagaran -**

जागरः पुं स्त्री (जागृ जागरणे + भावे घत्र)

जाग्रोऽविचीति इति गुणः

जागरणं (जागृ भावे लुट्)

निद्राभावः जागा इति भाषा

जागरो जागरणमस्यस्येति। हेमचंद्र ३/१०७

जागरणिष्णु (वि) जागरणशील सु.सु.३३/२५

- **Definition of Jagaran –**

निद्राभावः । आ.श.

Lack of sleep (at night) is Jagaran.

- **Synonyms of Jagaran –**

तत् पर्यायः जागर्या, जागरा, जागरः इति हेमचंद्र

जाग्रिया जागर्तिः इत्यमर टीका

Jagriya

Jagarti

Jagaryya

Jagara

Jagar

LAKSHANAS (SYMPTOMS) STUDIED IN COLLECTED DATA

1. Angamarda

अङ्गोद्वेष्टनमिव वेदना, स्फुट निला इत्यन्ते
डल्हण सु. उ.५५/१६

रसदोषविकारेषु एक । च.सू.२८/९

रक्तदोषज विकारेषु एक । सू.सू.२४/९

अंगमर्द गात्रओदनम् । च.सू.१४/२२

Due to Satat jagaran dosha prakopa occurs and apakwa aahar-rasa forms. This apakwa aahar-rasa vitiates rasa and rakta dhatu. Again due to satat jagaran vataprakopa occurs and intensity of angamarda increases.

जृम्भाअंगमर्दस्तन्द्रा च शिरोरोगोऽक्षिगौरवम् ।
निद्राविधारणात्तत्र स्वप्नः संवाहनानि च । च.सू.७/२३

Suppression of urge of sleep causes angamarda.

2. Jrumbha

पीत्वैकमनिलोच्छवासमुद्वैष्टन् विवृताननः ।

यन्मुच्चति सनेत्रास्त्रं स जृम्भ इति संज्ञितः ॥ सु.शा. ४/५०

Jrumbha is defined as the process in which one prolonged inhaling of the air through a widely open mouth and subsequent exhaling with the contraction of the limbs and tearful eyes together occurs.

3. Aalasya

आलस्य- लक्षण कर्माभावः। (आ.शब्दकोष)

शक्तस्यपि कर्मव्यनुत्साहः। र.१९/४४ आ.शब्दकोश

सुखस्पर्शप्रसंज्ञित्वं दुःखद्वेषणलोलता

शक्तस्य चाप्यनुत्साहः कर्मस्वालस्यमुच्यते। सु.शा.४/५२

Attachments to pleasant touches, aversion to difficulties, greediness and loss of enthusiasm in activities in spite of capacity is called as aalasya.

स्त्रोतोरुधबलभ्रंशगौरवानिलमूढताः।

आलस्यापक्तिनिष्ठिवमलसंङ्गारुचिक्लमाः। अ.ह.सू.१३/२३,२४

Aalasya can be defined as unwillingness to perform work. Person had the capacity of doing work but he is not in position to perform that particular work.

4. Shirogaurav

शिरसो गुरुत्वम्, शिरोआडयम् (च.सू.२/६) आ.शब्दकोश

संधारणादिवा स्वप्नाद् रात्रौ जागरणान्मदात्.....।

वातादयः प्रकुप्यन्ति शिरस्यस्त्रं च दुष्यति।

ततः शिरसि जायन्ते रोगा विविधलक्षणाः। च.सू.१७/८-११

Ratrijagaran and diwaswapa (day sleep) were cause to vitiate tridosha. Vitidiated rakta dhatu saturated in shiropadesha and various shirorogas occurs.

स्त्रोतोरुधबलभ्रंश गौरव अ.ह.सू १३/२३,२४

आर्द्रचर्मावनद्धं हि यो गात्रमभिमन्यते।

तथा गुरु शिरोऽत्यर्थं गौरवं तद्विनिर्दिशेत्। सु.शा.४/५५

The feeling as like the whole body is wrapped in the wet sheet accompanied by an extreme heaviness of the head is called gaurav.

5. Hastapadsandhishula -

लक्षणः रुजा च.सू. १४/१३ (आ.श.)

मज्जास्थिगतस्य कुपितानिलस्यैकं लक्षणम्

च.चि.२८/३३ (आ.श.)

सर्वशूललक्षणेषु वायुरैव प्रधानं कारणम् (मा.) (आ.श.)

तत्र वातशूलः अतिव्यायामयानमैथुनेभ्यः

प्रजागराच्छित्तजलातिपानात् मा. (आ.श.)

Vatadoshaprakopa is prime cause of shula lakshna. Satat Jagaran causes Vataprakopa and it reach to hastapadsandhishula.

Acharya Charaka described that shula lakshna is caused because of vatadoshaprakopa in Asthi, majja dhatu. Vatadosha is located in aasthi and majja.

6. Apakti (Aapachna) -

रोगः विंशतिश्लेष्मविकारेषु एकः

च.सू.२०/१७ अ.ह.सू.१२/५३ (आ.श.)

स्त्रोतोरोधबलभ्रंशगौरवानिलमूढताः ।

आलस्यापक्तिनिष्ठिवमलसंडगारुचिक्लमाः । अ.ह.सू.१३/२३,२४

अत्यम्बुपानद्विवभाशनाच्च संधारणातस्वप्नविपर्ययाच्च

..... सम्यक्परिपाक मेती । मा.नि.६/७

Apakti is one of the the disease of kapha (shelshma) dosha. Satat Jagaran causes agnimandya and it creates aapachna.

7. Mutradaha

सर्वांग दहनमिव संतापः । आ.श.

चत्वारिंशति पित्तविकारेषु एकः । च.सू.२०/१४

रात्रौ जागरणात् तेन वातपित्तानिमित्ताः । सु.शा.४/३७

निशाजागरेण अपि युध्दे श्रमे वा धनान्ते

शरत्सुप्रकोप । हा.सं.

Daha is included among the forty nanatmaja vikar of pitta dosha. Daha indicates burning like sensation.

Due to satat jagaran pitta dosha vitiates. This vitiated pitta causes mutradaha.

8. Netradaha

सर्वांग दहनमिव संतापः ।

चत्वारिंशति पित्तविकारेषु एकः । च.सू.२०/१४

रात्रावपि जागरितवतां वातपित्तानिमित्तास्त एवोपद्रवा भवन्ति । सु.शा.४/३७

निशाजागरेण अपि युध्दे श्रमे वा धनान्ते

शरत्सुप्रकोप । हा.सं.

Daha is included among the forty nanatmaja vikar of pitta dosha. Daha indicates burning like sensation.

Due to satat jagaran pitta dosha vitiates. This vitiated pitta causes netradaha.

9. Malavastambha (Malavarodha)

स्त्रोतोरोध वा.सू.१३/२३

रात्रौ जागरणं रुक्षं च.सू.२१/५०

मलबन्ध - लक्षण. मलावरोध

मलसङ्ग - लक्षण. मलावरोधः अ.ह.सू.१३/२४ (आ.श.)

Satat Jagarana causes formation of aama and in aama lakshanas, one of is malasanga.

Malavastambha is not is disease but this symptom is found in day to day practice. In various disease this is an one of the responsible causative factor.

Not passing stool daily in a proper quantity or total absence of defecation this is a main symptom of malavastambha.

सन्धारणादत्यशनादजीर्णाध्यशनात्तथा ।

वर्चोवाहीनि दुष्यन्ति दुर्बलाग्नेः कृशस्य च ॥ च.वि.५/२०

Suppression of urge of defecation, excessive meals, meals inspite of having indigestion, loss of appetite, emitiation these are causative factor for purishvoha strotas dushti.

10. Kshudhamandya

अग्नि - शारीरभाव. जाठराग्निः च.चि.१५/३ (आ.श.)

मात्रयाऽप्यभ्यवहतं पथ्यं चान्नं न जीर्यति ।

चिन्ताशोकभयक्रोधदुःखशय्याप्रजागरैः ॥ च.वि.२/९

अत्यम्बुपानद्विवभाशनाच्च संधारणात्स्वप्नविपर्ययाच्च

..... सम्यक्परिपाक मेती । मा.नि.६/७

देशकालर्तुवैषम्याद् वेगानां च विधारणात् ।

दुष्यति अग्नि..... । च.चि.१५/४३-४४

Poor appetite is one of the main for causative factor for creating many diseases.

Out of many other causative factor jagaran is also responsible for agnimandya.

Nidravegdharan (suppression of the urge of sleep) is one of the most important cause of agnidushti.

11. Nidranasha -

निद्रानाश - लक्षण. निद्राया नाशः च.सू.१६/१४

निद्रानाशोनिलात् पित्तान्मनस्तापात् क्षयादपि ।

संभवत्यऽभिघातच्च प्रत्यनीकैः प्रशाम्यति । सु.शा.४/४२

Kala, dhatukshaya, vyadhi (jwaradi vyadhi) and vatapitta vrudhi are the hetus of Nidranasha.

Nidranasha is caused by aggrevation of vatta and pitta, manstap, sharirik kshinata, and abhighata.

एत एव च विज्ञेया निद्रानाशस्य हेतवः ।

कालशीलक्षयो व्याधिवृद्धिश्चानिलपित्तयोः ॥ अ.सं.सू.९/३६

According to Acharya Vrudha Vaghbhata following are the reasons for the nidranasha.

Kala (time), shila (satmya), kshaya (loss of power), vyadhi (disease), vata and pitta dosha vrudhi.

12. Nirutsaha -

उत्साह - चैतासिको धर्म मनस उल्हासः ।

सु.चि.३८/५० च.सू.१८/४९ आ.श.

सर्वचेष्टा सूदयोगः अ.ह.सू.११/१

अध्यवसायः अ.ह.सू.११/१ हेमाद्रि.

तमुच्छ्वास निःश्वासोत्साह प्रस्पन्देन्द्रियअ.सं.सू.१९/२

उत्साहोश्वासनिश्वासः चेष्टावेगप्रवर्तनैः.....वा.सू.११/१

Utsaha is a function of vatadosha. Due to satat jagaran there is vititation of vata and ultimately nirutsaha occurs.

Inspite of having physical capacity, willingness if body doesn't react accordingly it is called an Nirutsaha.

MODERN LITERATURE

Introduction :

It is common knowledge that procedures which minimize sensory stimulation favour the onset of natural sleep. Thus the room is darkened, the body musculature is relaxed, the temperature of the body's surroundings is made "comfortably warm" ; silence is a useful adjunct to the process of falling asleep. Anxiety and emotion make sleep more difficult; it is known that adrenaline causes activation of the ascending reticular system. There is much in favour of the hypothesis that sleep results from a reduction in the sensory afflux. However, the problem is much more complex than this. Sleep is more likely when the subject is tired even though the surroundings themselves do not predispose to sleep.

Sleep related complaints are amongst the most commonly encountered in modern medicine. One-third of patient's have insomnia, difficulty in falling sleep, difficulty in staying asleep or too early awakening in the morning. It is well established that the phenomenon of sleep is one of the vital signs of good health without adequate and good sleep our ability to function is impaired yet inadequate sleep is one of the most underrated health risk factors today.

Sleep is defined as unconsciousness state from which the person can be aroused by sensory or other stimuli. Human's sleep and awaken at a fairly constant 24 hours rhythm called circadian rhythm. When the brain aroused or awake, it is in a state of readiness and able to react consciously to various stimuli. Since neuronal fatigue proceeds sleep and the sign of fatigue disappear after sleep.

Sleep restores energy of the body, particularly to the brain and nervous system. Slow wave sleep may help especially restoring the control of the brain and nervous system over the muscles and other body systems.

Dreaming sleep may especially important for maintaining such mental activities as learning and emotional adjustments.

Definition :-

Sleep is defined as unconsciousness, from which the person can be aroused, by sensory or other stimuli.

Types :-

1. NREM sleep – slow wave sleep.
2. REM sleep – rapid movement of eyes.

1. NREM sleep (Slow wave sleep):-

This sleep is exceedingly restful and is associated with decrease in both peripheral vascular tone and many other vegetative functions of the body as well. In addition there is 10 to 30% decrease in blood pressure, respiratory rate and B.M.R.

Though slow wave sleep is frequently called “dreamless sleep”, dreams to occur often during slow wave sleep. However the difference between the dreams occurring in both types of sleep is that, those of REM sleep are remembered, where as that of slow wave sleep usually is not. That is during this type of sleep, the process of consolidation of the dreams in memory does not occur.

It is also called as NREM (non rapid eye movement) sleep. It consists of 4 stages, each of which gradually merges into the next.

State 1 :-

This is transition stage between waking and sleep that normally lasts for 1 to 7 minutes. The person is relaxing with eyes closed. During this time, respirations are regular, pulse is even and the person has fleeting thoughts. If awakened, the person will frequently say he has not been sleeping. Alpha waves diminish the theta waves appear on EEG.

State 2 :-

This is the first stage of true sleep, even though the person experiences only sleep. It is a little harder to awaken the person. Fragments of dreams may be experienced and the eyes may slowly roll from side to side. The EEG shows sleep spindles- sudden, short bursts of sharply pointed waves that occur at 12 to 14 Hz (cycles per second).

State 3 :-

This is a period of moderately deep sleep. The person is very relaxed. Body temperature begins to fall and the blood pressure decreases. It is difficult to awaken the person and the EEG shows a mixture of sleep spindles and delta waves. This stage occurs about 20 minutes after falling asleep.

State 4 :-

Deep sleep occurs. The person is very relaxed. Bed-wetting and sleep walking occur during this stage. The EEG is dominated by delta waves.

In a typical 7 or 8 hours of sleep period, a person goes from stages 1 to 4 or NREM sleep. Then the person ascends to stage 3 and 2 and then to REM sleep within 50 to 90 minutes. The cycles normally continues through out the sleep period.

2. REM sleep – (paradoxical or desynchronized sleep) :-

In REM sleep the EEG readings are similar to those of stages 1 or NREM sleep. It is usually associated with active dreaming. There are significant physiological differences however during REM sleep. The person is even more difficult to arouse by sensory stimuli than during deep slow wave sleep. The muscle tone through out the body is exceedingly depressed indicating strong inhibition of spinal projections from the excitatory areas of brain stem. The heart rate and respiration usually become irregular, which is characteristic of dream state. Following REM sleep the person descends again to a stage 3 and 4 of NREM sleep.

Despite the extreme inhibition of the peripheral muscles, a few irregular muscle movements occur. These include particularly rapid movements of eyes. This is the origin of the acronym REM. The brain is highly active during REM sleep and overall brain metabolism may be increased as much as 20%. Therefore this type of sleep also called paradoxical sleep, because it is paradox that a person can still be asleep despite marked activity in the brain.

REM and NREM sleep alternate throughout the night with approximately 90 minutes intervals between REM periods. This cycles repeats itself from 3 to 5 times during the entire sleep period. The REM periods starts outlasting from 5 to 10 minutes and gradually lengthens until the final one last about 50 minutes.

In a normal sleep period, REM totals 90 to 120 minutes. As much 50% of an infant's sleep is REM, as contrasted with 20% for adults. Most sedatives significantly decrease REM sleep.

As the person ages, average time spent sleeping decreases, in addition the percentage of REM sleep decreases. It has been suggested that, the high percentage of REM sleep in infants and children reflects increased neuronal activity, which is important for maturation of the brain. Infants apparently need this internal stimulation, since the available external stimuli are restricted. Support for this idea comes from the fact that dreams, a particular kind of conscious activity in the brain are most frequent during REM type sleep.

Recent studies with animals suggest that, two specific neural centers in the brain stem determine the occurrence of NREM and REM sleep. The NREM sleep center is found in raphe nuclei. Its neurons contain large amount of neuro transmitter serotonin. When the supply of serotonin exhausted, the result is severe insomnia and a reduction in both NREM and REM sleep. The insomnia can be alleviated by the administration of the precursor or serotonin. Serotonin itself control cross blood brain barrier.

The REM sleep center is found in the locus coeruleus. Its neurons contains large amount of neuro transmitter norepinephrine (NE). Destruction of the loci coerulei results in a complete disappearance of REM sleep, but has no influence on NREM sleep. The administration of reserpine, a drug that exhausts the supply of both serotonin and norepinephrine results in the elimination of REM and NREM sleep. All these observations suggest that serotonin is important for NREM sleep and that of norepinephrine is important for REM sleep. Normally REM sleep is possible only if preceded by NREM sleep.

Natural body rhythm, especially body temperature, determines the length of the sleep. Higher the body temperature, longer the person will sleep.

A polysomnograph (poly=many; somnus=sleep; graph= to write) is an instrument electrode to record several physiological variables during sleep. Among these variables are brain electrical activity recorded as an electro encephalogram (EEG), eye movements recorded as an electro oculogram (EOG) and muscle electrical activity recorded as an electro myogram (EMG). These recordings indicate precisely when patients fall asleep, how many wake periods they experience, quality and the duration of sleep.

Basic theories of sleep :

An active inhibitory process probably causes sleep. It was discovered that transecting the brain stem in the mid pontile region leads to a brain that never goes to sleep. In other words, there seems to be some center or centers located below the mid pontile level of the brain stem that actively cause sleep by inhibiting other parts of the brain. This is called active theory of sleep.

Wakefulness and sleep :-

Humans sleep and awaken at a fairly constant 24 hour rhythm called circadian rhythm. When the brain is aroused or awake, it is in a state of readiness and able to react consciously to various stimuli. Since neuronal fatigue proceeds sleep and the signs of fatigue disappear after sleep. Moreover EEG recording indicate that during wakefulness, the reticular formation is associated with cerebral cortex.

The reticular formation has numerous connections with the cerebral cortex. Stimulation of portions of the reticular information results in increased cortical activity. Thus a portion of the reticular formation is known as the reticular activating system (RAS). One part of the system, the mesencephalic part, is composed of the areas of grey matter of the pons and midbrain. When this area is stimulated, many nerve impulse pass upward in the thalamus and dispense to widespread areas of the cerebral cortex. The other part of the RAS, the thalamus part, consists of grey matter in the thalamus. When the thalamic part is stimulated, signals from specific parts of the cerebral cortex, apparently the mesencephalic part of the RAS causes general wakefulness, and the thalamic part causes arousal, that is awakening from deep sleep.

For arousal to occur, the RAS must be stimulated by input signals. Almost any sensory input can activate the RAS pain stimuli, proprioceptive signals, bright light. Once the RAS is activated, the cerebral cortex is also activated and the person experiences the arousal. Nerve impulses from cerebral cortex can also stimulate the RAS. Such impulses may originate in the somesthetic cortex, the motor cortex or the limbic system. When the impulses activate the RAS, the RAS activates the cerebral cortex and the arousal occurs.

Following arousal, the RAS and cerebral cortex continue to activate each other through a feedback system consisting of many circuits. Impulses from activated RAS are transmitted down the spinal cord and then to

skeletal muscles. Muscle activation causes proprioceptors to return impulses that activate the RAS. The two feedback systems maintain activation of the RAS, which in turn maintains the activation of the cerebral cortex. The result is state of wakefulness that is consciousness. The RAS is the physical basis of consciousness, the brain's chief watch guard. It continuously sifts and selects, forwarding only the essential, unusual or dangerous to the conscious mind. Since humans experiences different levels of consciousness (alertness, attentiveness, relaxation, inattentiveness), it is assumed that the level of consciousness depends on the number of feedback currents operating at the time. During resting wakefulness alpha waves appears on an EEG.

Benefits of Sleep :-

Sleep restores energy to the body, particularly to the brain and nervous system. People require both slow wave and dreaming sleep. Extra sleep of either kind does not make up for the lack of other. Slow wave sleep may help especially in building protein and restoring the control of the brain and nervous system over the muscles glands and other body systems. Dreaming sleep may especially important for maintaining such mental activities as learning, reastring and emotional adjustments.

Demerits of loss of sleep:-

People deprived of sleep lose energy and become quick tempered. After two days without sleep, a person finds that, lengthy concentration become difficult. Through pure determination person may perform tasks well for short periods but is easily distracted. Many mistakes are made especially in routine tasks. Every sleepless person experiences a period of dozing off for a few seconds or more. The person falls completely asleep unless kept active continuously.

People, who go without sleep for more days, have great difficulty in thinking, singing and hearing clearly. Some have periods of hallucinations

during which they see the thing that do not really exist. They also confuse daydreams with real life and often lose track of their thoughts in the middle of a sentence while speaking to someone.

Sleep affecting elements :-

The amount of sleep decreases with age in proportion of bodies energy needs. Newborn babies needs up to 20 hours a day. 5 years old need 11 hours. 10 year old need 9 to 10 hours. For adults 7 to 8 hours at night is normal. Hormonal changes also affect sleep. Growing adolescents can sleep all morning partly because they have nothing more pressing to do.

Menopausal women often experiences sleeping problem overstressed. A study of relationship between amount of sleep and long term mortality risk published by Prof. Danniell Kripke of the university of California suggested that people who slept fewer than 6 hours a night are more than 10 hours had significantly increased risk of death in a five year. Follow up period contributory factors were not discounted.

So it indicates average 7 to 8 hours sleep was the healthy option. Constantly changing sleep patterns were also shown to be a health risk. If you missed a night sleep you need to catch up about a third of the lost hours for full recovery. As sleep deprivation continues the symptoms worsen and functioning deteriorates. You may feel minor hallucination, depression, bad temper and irritational feelings. You may even appear to be drunk says Hume.

According to Hume the effect of unscheduled sleep in the afternoon of feel miserable afterwards and the effect can last several hours and be self-perpetuating on a longer-term basis.

Many times 'Why sleep is must' this question arises. There are lot of reasons found behind this. People are working continuously throughout day. Because of constant mental and physical stress and strain, our body cells tired and to get rejuvenate this, rest to the body and mind is must. Rest

to body and mind gets only during sleep. Sleep allows body restoration and recovery, development and growth (50% of total amount of growth hormone secreted in 24 hours is released in the early part of sleep) and energy conservation. If someone doesn't sleep at night, naturally it hampers secretion of these hormones, ultimately it affects over body, mind and memory also. Because of lack of night sleep everyone feels tiredness and many times on the next day, we can't concentrate our mind over any work. Occasionally we lose our temper also.

As one's body moves through each 24 hours cycle it experiences fluctuation in temperature, wakefulness, gastric activity, heart rate, blood pressure and hormone levels. This flow of body activity is known as the circadian rhythm. These rhythms are important for optimal functioning of the many processes vital to death. When the normal circadian rhythm is disrupted by lack of sleep by crossing time zones. It may take days or weeks for the body to readjust. Physiological adaptation to night work is largely a myth and there is no reason to extend periods of night work in the hope that adaptation will occur.

Physiologic Effects of Sleep -

Sleep causes two major types of physiologic effects : first, effects on the nervous system itself, and second, effects on other functional systems of the body. The nervous system effects seem to be by far the more important because any person who has a transected spinal cord in the neck shows no harmful effects in the body beneath the level of transection that can be attributed to a sleep-wakefulness cycle; that is, lack of this sleep-wakefulness cycle in the nervous system at any point below the brain causes neither harm to the bodily organs nor any deranged function.

Lack of sleep certainly does, however, affect the functions of the central nervous system. Prolonged wakefulness is often associated with progressive malfunction of the thought processes and sometimes even causes abnormal behavioral activities. We are all familiar with the

increased sluggishness of thought that occurs toward the end of a prolonged wakeful period, but in addition, a person can become irritable or even psychotic after forced wakefulness. Therefore, we can assume that sleep in multiple ways restores both normal levels of brain activity and normal “balance” among the different parts of the central nervous system. This might be linked to the “rezeroing” of the electronic analog computers after prolonged use because computers of this type lose their “baseline” of operation; it is reasonable to assume that the same effect occurs in central nervous system because over use of some brain areas during wakefulness could easily throw out of balance with the remainder of nervous system. Therefore in the absence of any definitely demonstrated functional value of sleep, we might postulate that the principle value of sleep is to restore the natural balance among the neuronal centers. Even though, as pointed out earlier, neither wakefulness nor sleep has been shown to be directly harmful the somatic functions of the body. The cycle of enhanced and depressed nervous excitability that follows the cycle of wakefulness and sleep does have moderate physiological effects on the peripheral body, for instance during wakefulness there is enhanced sympathetic activity as well as enhanced numbers of skeletal nerve impulses to the skeletal musculature to increase muscle tone. Conversely, slow wave sleep sympathetic activity decreases while parasympathetic activity increases. Therefore a “restful” sleep ensues - arterial blood pressure falls, pulse rate decreases, skin vessels dilate, activity of gastrointestinal track sometimes increases, skeletal muscles fall into a mainly relaxed state and the overall basal metabolic rate of the body falls by 10 to 30 percent.

Nature’s Rhythm

Much of nature is made up of rhythms or cycles. Common rhythms include the four seasons and the twenty-four hour rotation of the earth. Like nature, our bodies have rhythms. Some of the rhythms of body and mind are tied to

nature. When working properly, our bodies respond to nature's cues to create their ideal rhythms.

For example, when functioning properly, the human circadian rhythm will respond to the morning light of a new day. This light will cue the body to produce cortisol, serotonin, and other hormones and neurotransmitters that get a person awake and going and cause blood pressure to increase and body temperature to rise.

At sunset, the body receives another of nature's cues and responds to dusk and ultimately the night's darkness. As the sun goes down the body will produce and secrete the hormone melatonin, and blood pressure will drop as the body prepares for and eventually falls off to sleep.

CIRCADIAN RHYTHM DISORDERS:

The circadian rhythm disorders fall into two categories – primary malfunction of the biologic clock per se and secondary resulting from environmental effects on the biologic clock.

Circadian Rhythms are our body's natural cycles that control appetite, energy, mood, sleep and libido. When our body is out of sync with nature, we suffer from a Circadian Rhythm disorder. Almost all of us, at some time during a year fall out of balance and suffer from sleep, mood or anxiety disorders. Fortunately, after decades of research, science has found the way to create circadian balance.

In reality circadian rhythms control the timing, quantity and quality of the hormones and neurotransmitters the body produces and eventually secretes. Hormones and neurotransmitters are the elements that determine how we feel, our sleep patterns, our appetite, our sex drive and other sleep mood-related issues. When functioning properly, our circadian rhythms create circadian balance. When out of balance, quantity, quality and timing of hormone and neurotransmitter secretion suffer and our bodies suffer from a circadian rhythm disorder (CRD).

I. Primary Circadian Dysrhythmias -

i. Delayed sleep phase syndrome –

The patient falls asleep late and rises late. There is striking inability to fall asleep at an earlier, more desirable time. e.g. student is habitually unable to fall asleep until 2.00 AM and has great difficulty in getting up in time for his 8.00 AM class. It often begins during adolescence, but some have onset in childhood.

ii. Advanced sleep phase syndrome –

It is characterized by the patient falling asleep early and awakens early. They are unable to remain awake until the desired time, falling asleep in the early evening and awakening in the very early hours of the morning. It has onset around 50 yrs.

Non 24 hour sleep wake disorder –

These patients cannot maintain a regular bed time but find sleep onset wandering around the clock. These patients lack the ability to be entrained or synchronized by the usual time cues, such as sunlight and social activity.

Irregular sleep wake pattern –

These patients have a disorganized sleep wake pattern with variable sleep and wake lengths. They complain of insomnia or excessive day time sleepiness or both. Sleep onset may occur at a variety of clock times. This disorder may occur in head injury, Alzheimer's dementia and hypothalamic lesion.

II. Secondary Circadian Dysrhythmias –

In secondary dysrhythmias the biologic clock is working normally but out of phase due to imposed shift in the geophysical environment. The changes associated with the time zone changes are transitory and self-limited. The adjustment process of the system to a new time zone

schedule is slow averaging 60 minutes of phase adjustment per day after phase advance shifts (east-bound flights), and 90 minute/day after phase delay shifts (west-bound flights). Jet lag symptoms may last for several days after flight across three or more time zones. The symptoms in those with shift work persists as long as the shift work does.

- **Sleep Hygiene Measures** –
 - Sleep only as much as you need to feel rested.
 - Keep a regular sleep schedule.
 - Avoid forcing sleep.
 - Exercise regularly for at least 20 mins, preferably 4-5 hrs before bedtime.
 - Avoid caffeinated beverages after lunch.
 - Avoid alcohol near bedtime; no nightcap.
 - Avoid smoking, especially in the evening.
 - Do not go to bed hungry.
 - Adjust bedroom environment.
 - Deal with you worries before bedtime.

.....**GRAPHS**

GRAPHS -

Pls.see the separate file in Pagemaker & pdf format. (File Name –
Graphs_Final)

.....CROSS TABLES

CROSS TABLES

Test Group – Percentage (Percentage (%)) of the persons having Satat Jagaran

Control Group - Percentage (%) of the persons not having Satat Jagaran

Cross Table - 1

	% of Persons having High Blood Pressure	% of Persons having Normal Blood Pressure
% of Persons having Jagaran + Tobacco, Cigar addiction		
40%	05%	95%
% of Persons having Jagaran but no addiction (T+C)		
60%	6.38%	93.62%
% of Persons not having Jagaran but having addiction (T+C)		
27%	01%	26%
% of Persons not having Jagaran & addiction (T+C)		
73%	03%	70%

Cross Table - 2

	% of Persons having High Blood Pressure	% of Persons having Normal Blood Pressure
% of Persons having Jagaran & alcohol addiction		
2.86%	11.76%	88.24%
% of Persons having Jagaran but no addiction alcohol		
97.14%	6.17%	93.83%
% of Persons not having Jagaran but having alcohol addiction		
00%	00%	00%
% of Persons not having Jagaran & alcohol addiction		
100%	05%	95%

Cross Table - 3

	% of Persons having High Blood Pressure	% of Persons having Normal Blood Pressure
% of Persons having Jagaran & Tobacco, Alcohol addiction		
11.66%	44.28%	55.72%
% of Persons having Jagaran but no Tobacco, Alcohol addiction		
88.34%	3.96%	96.04%
% of Persons not having Jagaran but having Tobacco, Alcohol addiction		
07%	00%	07%
% of Persons not having Jagaran & addiction of Tobacco, alcohol		
93%	05%	88%

Cross Table - 4

	% of Persons having Diabetes	% of Persons not having Diabetes
% of Persons having Jagaran & alcohol addiction		
2.83%	5.88%	94.12%
% of Persons having Jagaran but no alcohol addiction		
97.17%	2.74%	97.26%
% of Persons not having Jagaran but addiction of alcohol		
00%	00%	00%
% of Persons not having Jagaran but no addiction of alcohol		
100%	02%	98%

Cross Table – 5

	% of Persons having Amlapitta	% of Persons not having Amlapitta
% of Persons having Jagaran & alcohol addiction		
2.83%	41.17%	58.83%
% of Persons having Jagaran but no alcohol addiction		
97.17%	27.95%	72.05%
% of Persons not having Jagaran but alcohol addiction		
00%	00%	00%
% of Persons not having Jagaran and no addiction of alcohol		
100%	15%	85%

Cross Table - 6

	% of Persons having Psychiatric Complaints	% of Persons not having Psychiatric Complaints
% of Persons having Jagaran & Vatapradhan Prakruti		
35%	3.33%	96.67%
% of Persons having Jagaran but no Vatapradhan Prakruti		
65%	5.64%	94.36%
% of Persons not having Jagaran but Vatapradhan Prakruti		
29%	01%	28%
% of Persons not having Jagaran and no Vatapradhan Prakruti		
71%	00%	71%

Cross Table - 7

% of Persons having Jagaran & Sexual Complaints	12.5%
% of Persons having Jagaran but no Sexual Complaints	87.5%
% of Persons not having Jagaran but Sexual Complaints	01%
% of Persons not having Jagaran & no Sexual Complaints	99%

Cross Table - 8

% of Persons having Jagaran & Apachana	44.66%
% of Persons having Jagaran but no Apachana	55.34%
% of Persons not having Jagaran but Apachana	08%
% of Persons not having Jagaran & no Apachana	92%

Cross Table - 9

% of Persons having Jagaran & Malavastambha	41.66%
% of Persons having Jagaran but no Malavastambha	58.34%
% of Persons not having Jagaran but Malavastambha	07%
% of Persons not having Jagaran & no Malavastambha	93%

Cross Table - 10

% of Persons having Jagaran & Agnimandya	50.83%
% of Persons having Jagaran but no Agnimandya	49.17%
% of Persons not having Jagaran but Agnimandya	07%
% of Persons not having Jagaran & no Agnimandya	93%

Cross Table - 11

% of Persons having Jagaran & Addiction	54.5%
% of Persons having Jagaran but no Addiction	45.5%
% of Persons not having Jagaran but Addiction	34%
% of Persons not having Jagaran & no Addiction	66%

Cross Table - 12

% of Persons having Jagaran & Frequency of Health Complaints	76.66%
% of Persons having Jagaran but no Frequency of Health Complaints	23.34%
% of Persons not having Jagaran but Frequency of Health Complaints	27%
% of Persons not having Jagaran & no Frequency of Health Complaints	73%

Cross Table - 13

Onset of Health Complaints after Joining the Service		
Duration	Test Group	Control Group
After 1-5 years	27.66%	12%
After 6-10 years	37%	20%
After 11 years	33.18%	09%
Not having any health complaints	2.16%	59%

Cross Table - 14

	Test Group	Control Group
Having Aalasya	75.16%	07%
Not having Aalasya	24.84%	93%

Cross Table - 15

	Test Group	Control Group
Regular Exercise	6.66%	08%
Irregular Exercise	32.50%	33%
No Exercise	60.84%	59%

Cross Table - 16

Onset of Sleep	Test Group	Control Group
Within ½ hour	45.16%%	80%
Within ½ to 1 hour	38.50%	20%
After 1 hour	16.34%	00%

.....OBSERVATIONS

OBSERVATIONS

Observations were recorded and noted as follows.

- In test group, 12% persons from 20 to 30 yrs age group, 38% are in between 31 to 40 yrs & rest 50% were in between 41 to 50 yrs. age group. In control group, 4% from 20 to 30 yrs. age, 49% in between 31 to 40 yrs. & 47% were in between 41 to 50 years age.
- In test group, 85% were male & 15% female. In control group, 71% were male & 29% were female.
- Regarding economic status in test group, 7% were from good status, 54% were middle & 39% had low status. In control group, 37% had good status, 56% middle & 7% are from low economical status.
- In both groups maximum persons were married.
- In test group, 46% persons were vegetarian & in control group this no. is 69%. In test group 54% were having mix (veg + non-veg) diet & in control group 31% takes mix diet.
- In test group, 6% exercises daily, 33% irregular & 61% not doing any exercise. In control group 8% exercises daily, 33% irregular & 59% not doing any exercise.
- In test group maximum persons had addiction of alcohol either tobacco or both. In control group relatively less persons were found addicted. This is statistically significant. (p value = 9.43 e-05).
- In test group, 23% had Satat Jagaran since 1 to 10 yrs., 50% had since 11 to 20 yrs. and 27% had Satat Jagaran since more than 21 yrs. In control group, 26% had Service duration in between one to 10 yrs., 50% in between 11 to 20 yrs. & 24% persons had duration of more than 21 yrs.

- In test group, 10% person had sitting work, 27% had standing work & 63% had roaming type of work. In control group, 70% had sitting work, 3 had standing work & only 27% does roaming type of work.
- In test group maximum person had shift duty and 2.5% only night shift.
- In test group, those had Satat Jagaran 40% doesn't get deep sleep because of changing shifts. 60% had deep sleep. As compare to this in control group i.e. those doing only day duty gets deep sleep (Total 90%) Only 10% doesn't get deep sleep.
- In test group maximum number of persons requires more time (upto one hour) for onset of sleep. In control group only 1/4th as that of test group, persons requires more time for onset of sleep. This is statistically significant. (p value = 1.489e-10)
- In test group, 53% had 8 hours or less than that night shift 47% had more than 8 hours night shift.
- In test group, 23% persons has to remain awake (Jagaran) upto 7 hours and remaining 77% remain awake (Jagaran) more than 7 hours in their duty.
- Next day of Jagaran 19% takes sleep for 1 to 2 hours, 63% for 2 to 3 hours & 18% takes more than 3 hours sleep.
- It is observed that after Jagaran 64% persons takes sleep after taking food & only 35% persons takes sleep prior to food. 1% doesn't sleep after Jagaran.
- It is observed that the persons having Satat Jagaran needs more time for onset of sleep after going on bed. 1% persons needs to take sleep inducing medicines frequently and 4% requires sleep inducing medicines occasionally.
- In test group these person starts health complaints early as compare to the control group. In test group almost everyone had

health complaint (99%). In control group only 41% had health complaint. This is statistically significant. (p value = $< 2.2e-16$).

- In test group more number of persons had frequently or occasionally health complaints for which they requires medication. As compared to this in control group only 1/3rd persons had health complaints that also occasionally. This is statistically significant. (p value = $< 2.2e-16$)
- In test group, 30% doesn't complains Angamarda and 66% complains Angamarda for 15 to 30 minutes. In 4% persons it sustains for more than ½ hours. In control group, 89% doesn't complains Angamarda while 11% complains Angamarda for 15 to 30 minutes.
- In test group, 64% had Jrumbha for 15 to 30 minutes and 34% were symptom free and in 2% persons it remains for more than ½ hour . In control group, 7% had Jrumbha for 15 to 30 minutes and 93% were symptom free.
- In test group maximum persons had Aalasya lakshana while in control group very few had this lakshana. This is statistically significant. (p value = $< 2.29e-16$).
- In test group, 47% complains Shirogaurav occasionally while 49% doesn't complain it and 4% frequently. In control group, 91% were symptom free and only 9% had Shirogaurav occasionally.
- In test group, 29% had Hastapadsandhishula. This pain is tolerable. 68% were symptom free. In 3% persons this pain disturbs their routine, daily work. In control group, 94% were symptom free and only 6% had tolerable, Hastapadsandhishula.
- In test group more number of persons had Apachana while in control group this number is remarkably less. This is statistically significant. (p value = $1.160e-12$).

- In test group more number of persons found having Amlapitta. In control group relatively less number of persons had Amlapitta. This is statistically significant. (p value = 0.005119).
- In test group, 23% complains Mutradaha i.e. burning micturation occasionally while 77% were symptom free. As compare to this, in control group, none complains Mutradaha.
- In test group, 38% were Netradaha occasionally and 4% had frequently and 58% were symptom free. As compare to this group only 2% persons had Netradaha frequently and 98% were symptom free in control group.
- In test group more number of persons had Malavastambha occasionally or frequently. In control group this number of having Malavastambha is significantly less. This is statistically significant. (p value = 2.769e-11).
- In test group maximum number of persons had Agnimandya while in control group this number is significantly less. This is statistically significant. (p value = 3.224e-16).
- In test group, only 65% persons receives proper sleep, 32% disturbed sleep while 3% had nidranash. In control group, 97% person receives proper sleep 3% disturbed sleep & none had nidranasha.
- In test group, 3% feels frequent Nirutsaha and 50% had occasionally. In control group, only 9% had Nirutsaha occasionally and 91% were symptom free.
- In test group 1% persons had Laingik samasya (complaints) frequently and 12% occasionally. In Control group i.e. persons not having Satat Jagaran only 1% had this complaint occasionally.
- Incidence of hypertension, diabetes, cardiac disorder, psychiatric disease and anorectal diseases found more in number in test group as compare to the control group.

- In test group, 27% vatpittja Prakruti 25% kaphpittaja, 8% vatkaphaja, 10% kaphvataja, 18% pittavataja, and remaining 12% had pittakaphaja Prakruti. In control group, 25% had vatpittaja Prakruti, 38% kaphpittaja, 4% vatkaphaja, 5% kaphvataj, 17% pittavataj and remaining 11% pittakaphaj prakruti.
- The persons having satat jagaran and tobacco and cigar addiction 5% had high blood pressure. 6.38% persons were hypertensive having satat jagaran but non addicted and rest 93.62% were normotensive.

The persons not having jagaran but addicted 01% were hypertensive and rest 26% were normotensive.

The persons not having jagarana and no addiction only 03% were hypertensive and rest 70% were normotensive.
- The persons having jagaran and alcohol addiction 11.76% were hypertensive and rest 88.24% normotensive.

The persons having jagaran but no addiction of alcohol 6.17% hypertensive and rest 93.83% were normotensive.

The person not having jagarana but alcohol addicted all were normotensive.

The persons not having jagaran and non-addicted 5% were hypertensive and rest 95% were normotensive.
- The persons having satat jagarana and tobacco and alcohol addiction 42.28% had hypertension and rest 55.72% were normal blood pressure.

The persons having jagarana but non-addicted 3.96% were hypertensive and 96.04% normotensive. The persons not having jagaran but addicted to tobacco and alcohol addiction 07% were normotensive. The persons not having jagarana and non-addicted 5% were hypertensive and 88% were normal blood pressure.

- The persons having jagaran and alcohol addiction 5.88% were diabetic and rest 94.12% were non-diabetic.

The persons having jagaran but not addicted 2.74% were diabetic and 97.26% non-diabetic.

The persons not having jagaran but alcohol addicted none had diabetes.

The persons not having jagaran and not addicted only 2% were diabetic.

- The persons having jagaran and alcohol addiction 41.17% had amlapitta and rests were symptom free.

The persons having jagaran but non-addicted 27.95% had amlapitta and rest 72.05% were symptom free.

The persons not having jagaran and non-addicted 15% were had amlapitta and rest 85% were symptom free.

- The persons having jagaran and vatapradhan prakruti 3.33% had psychiatric complaints rest 96.67% were symptom free.

The persons having jagaran but not having vatapradhan prakruti 5.64% had psychiatric complaints and rest 94.36% symptom free.

The persons not having jagaran and having vatapradhan prakruti only 1% had psychiatric complaint and 28% symptom free.

The persons not having jagaran and not having vatapradhan prakruti all were symptom free.

.....DISCUSSION

Discussion -

Please see the separate file in MS Word format.

(File Name – Samprapti Charts)

DISCUSSION

- The highest number found in two groups is between 41 to 50 years age group. In present circumstances liabilities of family seen more and increasing gradually at this age. To fulfill these liabilities one has to do job either day or in rotation shift.
- Maximum number recorded was from male group in both. As per our tradition male are supposed to earn money preferably. In our society male are dominant and women has to look after family. It is very difficult to work in shift duty for women because of social and familiar circumstances. It is observed that in both groups females were doing day along with night shift. It might be because of financial need & strain. In this fast growing era to earn more money females are accepting job unwillingly.
- In both groups maximum persons were from middle economic status. It is observed that in test group i.e. the persons doing satat jagaran maximum persons were from middle as well as low economic status. They had financial strain so they are working in shift duty and overtime also. In control group i.e. the persons not doing satat jagaran 1/3rd were financially good.
- As per inclusion criteria the age group is selected in between 20 to 50 age, so maximum persons found married.
- Slightly higher number was found in test group i.e. the persons doing satat jagaran having non-vegetarian diet while in control group i.e. the persons not doing satat jagaran vegetarian reported were higher in number. Their working schedule, addiction and non-vegetarian diet may aggravates rajoguna.
- In both groups maximum number of persons not doing any physical exercise. It denotes overall poor compliance, awareness in our society

regarding exercises. Because of changing shift these persons can't spare time for exercise.

As the exercise can minimize the physical strain of the person. Most of the persons were not doing exercises after satat jagaran. So the effects of satat jagaran may aggravates.

- Most of the persons had tobacco or cigarette addiction in test group i.e. the persons doing satat jagaran. However there was difference in between the persons having tobacco, cigar addiction & alcohol addiction alone. In control group i.e. the persons not doing satat jagaran non-addict persons were maximum. In initial phase of job to avoid natural urge of sleep people use to take tobacco and tea. Nicotin and Caffeine had stimulatory alongwith euphoric effect. Gradually in course of time they develop urge of tobacco & tea and becomes addicted. Addiction may leads to increase in the intensity of various lakshnas.

As the addiction of tobacco, tea etc. while doing night shift (duty), may increase the intensity of the symptoms, caused due to satat jagaran (like angamarda, aalaya, shirogama etc.). So the person having night duty should avoid addictions.

As recorded in this study that the person having satat jagaran maximum had addiction like tobacco, gutkha, cigar or biddi. Tobacco contains nicotin. As per modern science nicotin affects parasympthatic activity. So it is the one of factor to cause hypertension.

Many persons chews tobacco or gutaka. This lime mixed tobacco or Gutakha causes severe irritation to buccol mucosa alongwith intestinal mucosa. Because of this, loss of normal mucosa many gastrointestinal problems starts like - GI upset, indigestion, loss of appetite etc.

- In both groups maximum persons were having job span of 11 to 20 years.
- In test group i.e. the persons doing satat jagaran maximum persons were doing roaming type of work while in control group i.e. the persons not doing satat jagaran almost 2/3 number of persons were doing sitting work.

It is mentioned in Samhita that Jagaran itself causes vatavrudhi and shelmakhashya. This roaming type of work (Atichankraman) and that also in night may leads to increase the intensity of various lakshnas.

Many persons in test group are doing roaming type of work (Atichankramana). This roaming type of work increases physical strain and ultimately it increases the vatadosha. So avoiding the sleep alongwith doing roaming type of work at night combinely aggravates vatadosha which leads to various vata related diseases.

- In test group i.e. the persons doing satat jagaran almost all persons were working in changing shifts i.e. morning, noon and night shifts. Very few number reported having only night shift.
- Considerably higher number of persons getting deep sleep were noted in control group i.e. the persons not doing satat jagaran. The night shift seems to be interfere in the sleep pattern in test group i.e. the persons doing satat jagaran. (Ref. च.सू.२१/५९)

The persons having night duty suppose to take sleep (half of the time of jagaran) that also prior to food. But in this survey maximum persons not taking proper quantity of sleep and taking sleep after meals. So these persons may suffer various health problems related to alpanidra. As the aggtrevated dosha (vata and pitta) dosen't subsides due to the diwaswapa which was taken after food and they remains as it is. Due to diwaswapa which was taken after food, increases kapha dosha and jointly they leads into tridosha prakopa.

- Gross difference was found in percentage regarding onset of sleep in both groups. In control group i.e. the persons not doing satat jagaran much higher number of persons starts sleep within ½ hour as compare to test group i.e. the persons doing satat jagaran. It indicates the overall sleep pattern was disturbed in test group i.e. the persons doing satat jagaran. It also indicates that Satat Jagaran causes delayed onset of sleep.

In test group i.e. the persons doing satat jagaran because of changing shift they have to remain alert and awake at odd time. Jagaran with or without shift also becomes habitual to these persons. So they usually had delay for onset of sleep.

The persons who are doing satat jagarana from long period, can't get good quantity of sleep at day time or at night also. As the vata dosha aggrevates so in these persons sleep disturbs and caused delayed onset of sleep.

- Persons having night shift for more than 8 hours were slightly less in number than those having night shift 8 hours or less.
- Almost 2/3 persons from test group i.e. the persons doing satat jagaran remain awake (Jagaran) for more than 7 hours during night shift. Remaining 1/3 persons from test group i.e. the persons doing satat jagaran remain awake upto 7 hours.
- As Ayurveda suggests that one should take, half time of nidra as that of he missed in last night. (Ref. च.सु. २१/३९-४२ चक्रपाणी टिका, सु.शा.४/३७)

In this study average duration of Jagaran is seven hours. It means that these persons requires nidra at least 3 ½ Hrs to compensate the seven hours Jagaran. In this study large number of persons are taking 1 to 3 hours sleep. It denotes maximum number of persons not following this rule. Very few takes sleep for more than 3 hours.

Maximum persons had lack of sleep, so they may suffer problems of alpanidra.

- It is found that after Jagaran maximum persons use to take sleep after taking food. In Ayurveda it is mentioned as Ahit Nidra i.e. Divaswapa. (Ref. च.सु.२१/३७) Symptoms like Angamarda, Agnimandya, Shirogaurav (Akale nidra) found significant in these persons. It is mentioned in Charaka Samhita that above laxanas are caused due to Diwaswapa. (Ref. च.सु. २१/४६-४९, सु.शा.४/३७)

In contrast to the Ardhakal Nidra after Jagaran maximum persons use to take sleep after taking food. Ayurveda suggests to take sleep before taking food. (Ref. च.सु. २१/३९-४२ चक्रपाणी टीका) According to Acharya Charaka & Acharya sushruta, taking day sleep is dangerous for the life of man & it may cause various diseases. Taking day sleep except in summer is hazardous for the body & it should be avoided. (Ref. च.सु. २१/४४). It may contribute to the health disturbances as observed in this study.

These persons sleeps after taking food and that also for inadequate period. Therefore aggravation of symptoms occurs.

- It is found that few persons having Satat Jagaran needs to take sleep inducing medicines. It suggests that Jagaran affects Samyaka Nidra (Natural Sleep).

Because of increased vatadosha and Rajoguna there is delay for onset of sleep. The persons having changing shift has to wake up at odd time and they doesn't get proper sleep at proper time so they have to take sleep inducing medicines.

- In test group i.e. the persons doing satat jagaran much higher number of persons were observed having early onset of health complaints. Very few persons were symptom free in test group i.e. the persons doing satat jagaran whereas in control group i.e. the persons not

doing satat jagaran maximum persons were symptom free. Lowered immunity status in test group i.e. the persons doing satat jagaran reflects as higher incidence of symptoms. It proves that because of satat jagaran more number of persons starts health complaints and early too.

- Due to frequent Jagaran the Bala which contributes to Vikar Vighatkar Bhava (Ref. च.नि.४/४) will naturally reduce and this will reflect in manifesting of frequent health complaints. Frequency of health complaints is seen more in persons having Satat Jagaran. It is observed that the persons not having Satat Jagaran showed (more) Uttambala in terms of very less frequently health complaints. As mentioned by Acharya Charka whoever takes food at very odd time (Akale) and neglecting mala mutra etc. vegas (natural urges) additionally generating theses urges voluntarily at his own convenience suffers frequent health complaints (sada-atur) (Ref. च.सि. ११/३०).

Those having mithya, aahar – vihar (as suggested in Ayurveda) prone to have frequent illness. As observed in test group i.e. the persons doing satat jagaran theses persons having ahitkar ahar-vihar & mal mutra etc. vega-avrodha, so they gets frequent health complaints.

The persons doing satat jagaran, maximum were from low or middle economical status. So they can't afford nutritional diet (quality and quantitywise) ultimately it hampers their general immunity. This lowered immunity status alongwith satat jagaran creates health related problems.

- In test group every one had angamarda. Due to satat jagaran and nidravegdharna, vataprakopa occurs and it leads to angamarda. (Ref.च.सु.२०/१२)

Satat jagaran causes agnidushti. Agnidushti leads to apakwa aahar-rasa. This apakwa aahar-rasa vitiates rasa dhatu and angamarda occurs. (Ref. च.सु.२८/९)

As it is observed that many persons had roaming type of work in night. This roaming type of work (Atichankramana) causes vataprakopa and it further leads to angamarda.

Alongwith atichankramana some persons had stressful physical activities in night shift and such work increases the vata dosha.

This physical strain, atichankramana in night, responsible to create angamarda.

- In test group maximum persons had jrumbha. Due to satat jagaran vatadushti occurs and it causes jrumbha. (Ref. च.सु.२०/११).

Nidra vegdharan (suppression of use of sleep) itself causes jrumbha. (Ref. च सु ७/२३).

- In test group maximum number of persons had alasya. Aalasya is a condition in which inspite of having physical capacity body doesn't act as per need. (Ref. आ.श. Page No.94)

When a person doesn't sleeps in night (jagaran) and take sleep in day time (diwaswapa) agnidushti followed by aama nirmiti occurs. Aama leads to aalasya. (Ref. अ.ह.सू.१३/२३-२४)

Because of ahitkar aahar vihar, mala mutra and nidra vegdharan (suppression of natural urges) agnidushti occurs and it forms aama.

As per Acharya Vagbhata, aama is one of the reason for aalasya. Hence satat jagaran leads to aama formation and causes Aalasya.

- Because of satat jagaran there is suppression of urge of sleep. As mentioned in samhitas that due to nidravegdharan, vata and pitta increases and diwaswapa after meal causes increase in kapha (shleshma) and it combinely leads to shirogaurav. During satat

jagaran there is changing timings of meals and sleep. It leads to agnidushti followed by aama nirmiti. Aama causes gaurav. Nidravegdharan itself leads to gaurav. (Ref.च.सु.७/२३)

- Due to satat jagaran vataprakopa occurs. It increases ruksha guna of vata. (Ref.च.सु.२१/५०)

As per Ayurvedic text vataprakopa is a prime cause for different types of shula in the body. (Ref.च.सु. २०/१२, मा.नि.२६/२).

In person having satat jagaran there is decrease in shleshma simultaneously snigdha guna also decreases. It leads to hastapad-sandhishula. In test group everyone had hastapadsandhishula while in control group almost all were symptomfree.

The persons doing physical work alongwith satat jagarana suffers more with vataprakopjanya diseases as like hastapadsandhishula. As shula never appears without vata dosha the aggravated vata again increases the hastapadsandhishula.

- The persons having night shift doesn't get sleep in night. They have to remain awake throughout the night. In night these persons consume ruksha aahar. These factors are responsible to cause various types of vata vyadhi. (Sarvangik or Ekangik) like – Angamarda, Hastapadsandhishula etc. (Ref.मा.नि.२२/१).
- The persons having shift duty always in worry. Because of changing shift financial constrain, work stress these persons always in worry. As mentioned in ayurvedic text worry (chinta) is one of the major factor to cause rasadushti. (Ref.च.वि.५/१२).
- This rasadushti leads to agnidushti. Agnidushti causes Apachana. The persons having night shift doesn't set sleep in night. They have to remain awake throughout night. This jagaran is one of the factor to cause Agnidushti & it further leads to apachana.

Maximum number of persons had satat jagaran had apachana. Satat jagaran causes agnimandya and apakwa aahar-rasa forms. This leads to apachana. The person having satat jagarana agnimandya occurs. In spite of having agnimandya when a person consumes excessive food then apachana occurs. During agnimandya virudhashan occurs then it leads to apachana. During work in night many persons take breakfast and even light meals (Spicy instant food). These factor needs to be taken in account for apachana.

- In test group maximum persons had aamlapitta. Due to satat jagarana pitta dushti occurs. Amla guna of pitta increases and vidagdhajirna occurs and it leads to amlapita. (Ref.मा.नि.६/५)

After jagaran these persons takes sleep in day time. Diwaswapa leads to kaphadushti and agnimandya and later on aamajirna. In such condition if meals taken inspite of agnimandya it further leads to vidagdhajirna ultimately amlapitta starts. (Ref.का.सं.खि.१६/३-९)

Due to satat jagarana pitta dushti occurs. Because of pitta dushti drava guna increases and it leads to agnidushti and later on amlapitta.

It is observed that the person having satat jagaran maximum had tobacco addiction. Tobacco chewing causes pitta dushti and increase in ushna guna and ultimately aamlapita. (Ref.मा.नि.६/५)

Due to satat jagaran there is nidravegvidharana. Veg vidharan leads to vata prakopa and agnimandya. It is observed that these persons had pitta prakopak aahar, vihar sevana. It creates vidagdhajirna and then amlapitta. (Ref.का.सं.खि.१६/३-९)

It is found that these persons during jagaran drinks excess tea or coffee. It is observed that there is increased frequency of micturation. Ultimately total fluid in body becomes less. To compensate this fluid loss again there is excessive fluid intake in the form of hot drinks. Due to hot drinks ushna and drava guna increases and agnimandya

occurs. When there is ahitkar aahar sevan during agnimandya, it leads to vidagdhavastha and then amlapitta.

- Due to satat jagarana pitta dushti occurs. This pitta dushti leads to netradaha. (Ref. च.सू.२०/१४)
- Satat jagarana causes pittaprakopa. The persons doing satat jagaran alongwith consuming hot and spicy food, various addictions may increase the pitta dosha. The pitta dosha in such conditions may creates problems like mutradaha.

Satat jagarana i.e. Nidravegdharana causes vataprakopa. When pitta pradhan vatadushti occurs then it leads to mutradaha. (Ref.च.सू.२०/१४)

It is mentioned in Harit Samhita that nisha jagaran is a causative factor for pittaprakopa. (Ref. हरितसंहीता Page No. 23)

Acharya Sushuta also mentioned that jagaran causes vatapitta prakopa. When vitiated pitta locates in mutravaha strotas it leads to mutradaha. (Ref.च.सू.२०/१४)

- As mentioned in charak samhita satat jagaran leads to increase in vata dosha and simultaneously shleshma kshaya.

Due to increase in vata dosha, ruksha guna rises and decrease in shleshma gives rise to decrease in sneha guna. Because of combined effect of these factors there is decrease in the purish sneha and it leads to malavstambha. (Ref. अ.ह.सू.११/५-६)

Satat jagaran causes agnimandya. Agnimandya leads to aama nirmiti and aama causes malasang and later on malavstambha. (Ref. अ.ह.१३/२३-२४)

Satat jagaran i.e. suppression of nidraveg causes aapan vayu dushti and it leads to malavstambha. (Ref.च.सू.७/१२)

This udawarta alters movement of vata dosha. Vegavarodha of nidra, aapanvayu, mal and mutra causes udavarta. The pratilom apana causes malavstambha and due to this particularly apanvayu's gati becomes erected i.e. pratiloma and this pratiloma of apana causes malavstambha. (Ref. मा.नि.२७/१)

It is mentioned in Ayurveda that early morning hours is the proper time to attend the vegas. The persons having satat jagaran are either busy in their work or in sleep in this period.

- Agnimandya scores higher in number in the person having satat jagaran. It is due to odd timing of taking food (akale bhojan), food in improper quantity, changing shifts, vidagdha aahar vihar (spicy food, working in hot climate) various types of addiction, excessive drinking of tea and coffee, lack of exercise. (Ref. च.वि.२/९)

Satat jagaran causes vata prakopa ultimately saman vayu dushti and suppression of agni occurs. This creates agnimandya. (Ref. सु.नि.१/१६-१७)

Satat jagaran and diwaswapa causes vitiation of tridosha and agnidushti occurs tridosha and later on agnimandya creates. (Ref. मा.नि.६/७-८)

Nidravegdharana itself responsible for vata prakopa. This prakupit vayu creates agnidushti and later on agnimandya. (Ref. मा.नि.६/७-८)

As it is observed that in test group maximum persons had roaming type of work (Atichankramana). This Atichankramana is responsible factor for vata prakopa. This prakupit vata dosha leads to agnimandya.

The persons having satat jagaran maximum had tobacco chewing addiction. They also takes hot drinks like tea, coffee etc. Because of

these reasons ushna guna increases it creates pitta dushti and later on leads to agnimandya.

- Because of changing shift, these persons doesn't get proper sleep and they have to awake at odd time. It is observed that in test group maximum persons doesn't get proper sleep while in control group very few had this problem.

Satat jagaran causes pitta vrudhi. Due to increase in ushna guna it leads to sleep related problems and nidranasha.

Due to satat jagarana there is decrease in kapha and increase in vata. Because of combined effect ruksha guna rises and it tends to sleep related problem and nidranasha.

As mentioned in Ayurvedic text due to satat jagarana rajoguna increases and tamoguna decreases. It leads to sleep related problem and nidranasha.

- Nirutsaha is opposite of utsaha which indicates lack of interest. Utsaha is an avikrut karma of vatadosha. (Ref.अ.ह.सु.११/१)

Utsaha is a normal function of swastha person. In whom the doshas, agni, dhatus, malas and their activities are normal then his atma, indriya and mana were clean. It is called swasthya. (Ref.सु.सु.१६/४८)

In the person having satat jagaran dosha, agni, dhatus and malas gets disturbed. Naurally it affects on mana and that person feels nirutsaha.

Satat jagaran and diwaswapa combinedly causes kaphadushti. Kaphadushti leads to aama nirmiti and aalasya and then nirutsaha seen.

- Due to satat jagarana agnidushti and vata prakopa occurs. Both these factors leads to dhatukshaya and gradually langik complaints.

Due to satat jagarana agnidushti occurs agnidushti leads to rasadushti. (Ref.च.सू.२८/९,१०)

As rasadushti occurs gradually next dhatu dushti occurs. At last there is formation of aasar shukra and that person gets laingik complaints.

As mentioned in Ayurveda text alongwith sukha-dukha sexual power is also related with samyak nidra. In test group i.e. the persons doing satat jagaran few had sexual complaints (Laingik samasya) persons from middle class society are not willing to expose such complaints that may be because of shyness. As it is observed in test group i.e. the persons doing satat jagaran that many of them had addiction of tobacoco, cigar or alcohol. It might be one of the responsible factor for having Laingik samasya. Satat Jagaran causes Agnidushti & simultaneously Rasdushti. In Charak Samhita dushta rasadushti lakshna described. One of the lakshana is Klaibya (Laingik samasya). (Ref.च.सू.२८/९,१०).

- Incidence of hypertension, diabetes, cardiac disorder, psychiatric diseases and anorectal diseases found more in number in test group i.e. the persons doing satat jagaran compared to the control group i.e. the persons not doing satat jagaran.
- As observed in test group i.e. the persons doing satat jagaran there is lack of exercise. They had also suppression of nidraveg, Diwaswap, suppression of malamutra vegas, vatapittaproakopak, ahitkar ahar, vihar, all these factors are responsible for hypertension, diabetes, cardiac disorder (Ref.मा.नि.२९/१), anorectal diseases (Ref.मा.नि.५/७) and many other diseases.
- Aggrevated vata dosha causes increase in the rajo guna of mind which deprives the effect of satva guna and ultimately it affects on the mental condition of the person giving rise to the mental symptom. Those person not having constitution of vataja pradhan also suffers from mental symptoms. It is due to increase vata dosha because of satat jagaran.

- It is observed that the type of Prakruti Vatapittaja, Kaphapittaja, Vatakaphaja, Kaphavataja, Pittavataja are almost equally distributed among the test and control group i.e. the persons not doing satat jagaran.
- The persons having jagaran high blood pressure seen more common. The persons not doing satat jagaran and without tobacco, cigar addiction also had hypertension.
To cause hypertension satat jagaran and tobacco & cigar addiction are not the causative factor.
- High blood pressure is noticed in persons having satat jagaran irrespective of their alcohol addiction. Simultaneously it is observed that there are some cases those not doing satat jagaran and not addicted to alcohol also had high blood pressure, though they are less in number.
- The persons having satat jagaran and tobacco & alcohol addiction more had hypertension as compare to the persons who are not addicted. It is noticed that the persons not doing satat jagaran also had hypertension.
- It is also observed that the equal percentage of persons doing jagaran and the person not having jagaran suffering from high blood pressure irrespective of having tobacco and alcohol addiction. If a person had satat jagaran and alcohol abuse there are much more chances for high blood pressure.
Interestingly it is also seen that there are some common responsible factors for hypertension apart from tobacco and alcohol addiction.
- Diabetes is seen in both groups irrespective of having or not having alcohol addiction. For diabetes alongwith other causative factor, jagaran and alcohol might be one of factor.
In the persons having jagaran and alcohol addiction were seen almost double of the persons having jagaran and non addicted. From this

observation we can comment that for amlapitta alcohol addiction is one of the major factor alongwith jagaran.

- There is no major difference found in the percentage of persons having jagarana and vatapradhan prakruti and psychiatric complaint. In the persons not having vatapradhan prakruti because of satat jagaran vataprakopa occurs and it may lead to various psychiatric complaint. Due to satat jagaran there are some factors to cause manakshobha.
- It is observed that, to fulfill the target, excessive work is given to the workers. It creates unwanted strain on body and mind also. It hampers their health and they starts psychosomatic complaints too early.
- In this study, to cause various symptoms/ diseases other factors also found responsible alongwith nidra-avrodha (jagaran)
 1. Tobacco, cigar, alcohol etc.addiction,
 2. Lack of exercise,
 3. Excessive hot drinks (coffee and tea)
 4. Meals / breakfast at late night hours.
 5. Eating spicy food/ fast food
 6. Industrial environment
 7. Overtime / extra duty.

The study aimed at investing these effects in a scientific manner. Jagaran is unavoidable part of civilization of industrial development. This study is primitive effort towards the finding solution to this vital social problem.

CONCLUSIONS

- Aalasya found significantly more in persons having satat jagaran. pvalue < 2.2e-16.
- The symptoms arising due to satat jagaran subsides after some extent after taking sleep in day time prior to food.
- Addictions observed at higher side in those having Satat Jagaran pvalue=9.453e-05.
- Satat Jagaran causes delayed onset of sleep.
- The persons having Satat Jagaran not taking Samyaka Nidra (Adequate sleep) prior to food, next day of Jagaran.
- The persons having Satat Jagaran use to sleep after taking food (which was contradictory as per Ayurvedic Text).
- The side effects of Diwaswapa are also seen in this study.
- Frequency of health complaint is significantly more in persons having Satat Jagaran. pvalue < 2.2e-16.
- In this study percentage of the persons complaining about digestion problem remains on peak level. Amlapita and Apachana are the measure problems.
Amlapitta – p value = 0.005119
Apachna – p value = 1.160e-12
- In persons, having Satat Jagaran – Angamarda, Shirogaurav, Jrumbha, Aalasya, Malavarodha these lakshanas were observed. Out of these laxnas Agnimandya, Malavarodha and Alyasa are significantly seen. It also proved the theory of Ayurveda about the natural urges and symptoms mentioned about Nidra Vegaavarodha are true.

NEW CONCLUSIONS -

- Period for onset of health complaints and Jagaran are statistically significant. p value $< 2.2e-16$.
- Malavarodha and Jagaran are statistically significant. p value $= 2.76 e - 11$.
- Agnimandhya and Jagaran are statistically significant. p value $= 3.224e-16$.
- Addiction & Jagaran are statistically significant. p value $= 9.453e-05$
- Blood pressure and Jagaran are not statistically significant.
- Diabetes and Jagaran are not statistically significant.
- Psychiatric complaints and Jagaran are not statistically significant.
- Diabetes is seen in both groups irrespective of having alcohol addiction.
- For hypertension satat jagaran and tobacco chewing & smoking addiction are not the causative factor.
- For amlapitta, alcohol addiction is one of the major factor alongwith jagaran.

....SCOPE FOR FURTHER STUDY

SCOPE FOR FURTHER STUDY

- The persons having Satat Jagaran can be divided in separate groups according to occupation and type of work for further study.
- Efforts should be done to evaluate the problems having more frequency of Jagaran.
- Effect of Jagaran on specific system may be studied.
- Neurolochemical changes in persons having satat jagaran may be studied.
- Relationship in between prakruti and the nidra vegavdhavan lakshnas may be studied.
- The study which reveals the effects on health after taking sleep prior to food next day of jagaran.

.....REFERENCES

REFERENCES

- तमोभवा श्लेष्मसमुद्भवा च मनःशरीरश्रमसंभवा च ।
आगन्तुकी व्याध्यनुवर्तनी च रात्रिस्वभावप्रभवा च निद्रा ॥ च.सू.२१/५८
- रात्रीस्वभावप्रभवा मता या तां भूतधात्रीं प्रवदन्ति निद्राम ।
तमोभवामाहुरघस्य मूलं, शेषाः पुनर्व्याधिषु निर्दिशन्ति ॥ च.सू.२१/५९
तमोभवा तमोगुणोद्रेकभवा मनःशरीरश्रमसंभवा मनःशरीरयोः
श्रमेण क्रियोपरमे सति नेन्द्रियाणि न च मनो विषयेषु प्रवर्तन्ते
ततश्च निद्रा भवति ।
आगन्तुकी रिष्टभूता व्याध्यानुवर्तिनी सन्निपातज्वरादिकार्या
रात्रिस्वभाव प्रभवात्प्रभवतीति
रात्रिस्वभावप्रभवा दिवा प्रभवन्ती तु निद्रा तमःप्रभृतीभ्य स्त्रीभ्य एव भवति ।
चक्रपाणी च.सू.२१/५८-५९
- हलीमकः शिरःशूलं स्तैमित्यं गुरुगात्रता ।
अडमर्दोऽग्निनाशश्च प्रलेपोहृदयस्य च ॥ च.सू.२१/४६
- शोफारोचकहृल्लासपीनसार्धावभेदकाः ।
कोठारु पिडकाः कण्डूस्तन्द्रा कासोगलामयाः ॥ च.सू.२१/४७
- स्मृतिबुद्धिप्रमोहश्च संरोधः स्रोतसां ज्वरः ।
इन्द्रियाणामसामर्थ्यं विषवेगप्रवर्तनम् ॥ च.सू.२१/४८
- भवेन्नृणां दिवास्वप्नस्याहितस्य निषेवणात् ।
तस्माद्विताहितं स्वप्नं बुद्ध्वा स्वप्यात् सुखं बुधः ॥ च.सू.२१/४९
- गुरुशीतमतिस्निग्धमात्रं समश्नताम् ।
रसवाहिनि दुष्यन्ति चिन्त्यानां चातिचिन्तनात् । च.वि.५/१२

- अकालेऽतिप्रसङ्गाच्च न च निद्रा निषेविता ।
सुखायुषी पराकुर्यात् कालरात्रिरिवापरा ॥
च.सू.२१/३७, अ.सं.सू.९/२३, अ.ह.सू.७/५४
- ग्रीष्मवर्ज्येषु कालेषु दिवास्वप्नात् प्रकुप्यतः ।
श्लेष्मपित्ते, दिवास्वप्नस्तस्मात्तेषु न शस्यते ॥ च.सू.२१/४४
- तद्यथा रौक्ष्यं शैत्यं लाघवं वैशद्यं गतितरमूर्तत्वमनवस्थितत्वं चेति
वायोरात्मरूपाणिः एवं विधत्वाच्च वायोः कर्मणः स्वलक्षणदिमस्य भवति त तं
शरीरावयवमाविशतः, तद्यथा -
स्त्रंसभ्रंसव्याससङ्गभेदसादहर्षतर्षकम्पवर्तचालतोदव्यथाचेष्टादीनि तथा
खरपरुष
विशदसुषिरारुणवर्णकषायविरसमुखत्वशोषशूलसुप्तिसंकोचनस्तम्भनखज्जता
दीनि च वायोः कर्माणि, तैरन्वितं वातविवकारमेवाध्यवस्थेत च सू २०/१२
- अश्रद्धा चारुचिश्चास्यवैरस्यमरसज्ञता ।
हृल्लासो गौरवं तन्द्रा साङ्गमर्दो ज्वरस्तमः च.सू. २८/९
- पांडुत्वं स्त्रोतसां रोधः क्लैष्य सादः कृशाङ्गतो ।
नाशोऽग्नेरयथाकालं वलयः पलितानि च ॥ च.सू.२८/१०
- सदैव ते हयागतवेगनिग्रहं समाचरन्ते न च कालभोजनम ।
अकालनिर्हारहिरसेविनो भवन्ति येऽन्येपि सदाऽऽतुराश्च ते । च.सि.११/३०
- तत्रादौ वातविकाराननुव्याख्यास्यामः !
तद्यथा नखभेदश्च, विपादिका च, पादशूलश्च, पादभ्रंशश्च, सुप्तपादता च,
वातखुड्डता च, गुल्फग्रहश्च पिण्डिकोद्वेष्टनं च ... अनवस्थितत्वं
चेत्यशीतिर्वात विकारा वातविकाराणामपरिरसंख्ययानामाविष्कृततमा
व्याख्याताः । च सू २०/११

- जृम्भाङ्गमर्दस्तन्दा च शिरोरोगोऽक्षिगौरवम् ।
निद्राविधारणात्तत्र स्वप्नः संवाहनानि च ।। च.सू. ७/२३
संवाहनं पाणिनां पादादिप्रदेशोसुखमभिहननमुन्मर्दनं च । चक्रपाणि ७/२३
- रात्रौ जागरणं रुक्षं स्निग्धं प्रस्वपनं दिवा ।
अरूक्षमनभिष्यन्दि त्वासीन प्रचलायितम् ।। च.सू.२१/५०
- पित्तविकारांश्चत्वारिंशत्तमत् उर्ध्वमनुव्याख्यास्यामः
तद्यथा- औषश्च, प्लोषश्च, दाहश्च, दवथुश्च, धूमकश्च
विदाहश्च, अन्तर्दाहश्च.....इति चत्वारिंशत् पित्तविकाराः
पित्तविकाराणामपरिसंख्येयानाविष्कृततमा व्याख्याताः ।। च.सू.२०/१४
- सङ्गो विष्मूत्रवातानामाध्मानं वेदना क्लमः ।
जठरे वातजाश्चान्ये रोगाःस्युवतिनिग्रहात् ।। च.सू.७/१२
गीताध्ययनमद्यस्त्रीकर्मभाराध्वकर्षिताः ।
अजीर्णिनः क्षताः क्षीणा वृद्धा बालास्तथाऽबलाः ।। च.सू.२१/३९
तृष्णातीसारशूलार्ताः श्वासिनो हिक्किनः कृशाः ।
पतिताभिहतोन्मत्ताः क्लान्ता यानप्रजागरैः ।। च.सू.२१/४०
क्रोधशोकभयक्लान्तादिवास्वप्नोचिताश्च ये ।
सर्व एते दिवास्वप्नं सेवेरन् सार्वकालिकम् ।। च.सू.२१/४१
रात्रौ जागरितानां च तज्जनिनतवातक्षोभशमनार्थम्
दिवास्वप्नः स च क्षारपाणिवचनेन कर्तव्यः
यदुक्तम् “यावत्कालं न सुप्तः स्यादात्रौ
स्वप्नादयेथोचितात् ततोऽर्धमात्रं तत्कालं
दिवास्वप्नो विधीयते ।”
अयंच दिवास्वप्नोऽ भुक्तवतांमेव ।
यदुक्तम् “हारीते भुक्त्वा स्वप्नं न सेवेत
सुस्थोप्ययसुखितो भवेत्” । च.सू.२१/३९-४२ चक्रपाणी टिका

- विकाराणां विघातस्य उत्पत्तिप्रतिबन्धस्य
भावो विघातभावः विकाराणां विघातस्यभावो
विकारजनमिति विकारविघातभावाभावौ तयोः प्रतिविशेषाः ।
च.नि.४/४ चक्रपाणि
- मात्रयाऽप्यभ्यवहृतं पथ्यं चान्नं न जीर्यति ।
चिन्ताशोकभयक्रोधदुःखशय्याप्रजागरैः ॥ च.वि.२/९
- रात्रावपि जागरितवतां वातपित्तनिमित्तास्त
एवोपद्रवा भवन्ति । सु.शा.४/३७
त एव कासश्वासादय एव डल्हण सु.शा.४/३८
- सर्वर्तुषु दिवास्वापः प्रतिषिद्धोऽन्यत्र ग्रीष्मात्, प्रतिषिद्धेष्वपि तु
बालवृद्धस्त्रीकशितक्षतक्षीणमद्यनित्ययानवाहनाध्वकर्मपरिश्रान्तानामभुक्तवतां
मेदः स्वेदकफरसक्तक्षीणानामजीर्णानां च मुहुर्तं दिवास्वपनमप्रतिषिद्धम् ।
रात्रावपि जागरितवतां जागरितकालादर्धमिष्यते दिवास्वपनः ।
विकृतिर्हिदिवास्वप्नो नाम । तत्र स्वपतामधर्मः सर्वदोषप्रकोपश्च ।
तत्प्रकोपाश्च कासश्वासप्रतिश्याय शिरोगौरवाङ्मर्दारोचकज्वराग्निदौर्बल्यानि
भवन्ति । रात्रावपि जागरितवतां वातपित्तनिमित्तास्त एवोपद्रवा भवन्ति ॥
सु.शा.४/३७
- समदोषः समाग्निश्च समधातुमलक्रियः
प्रसन्नात्मेंद्रियमनाः स्वस्थ इत्यभिधीयते ॥ सू.सू.१६/४८
- दिवास्वप्नाव्यायामालस्यप्रसक्तं शीतास्निग्धमधुरमेध्यद्रवात्र
पानसेविनं पुरुषं जानीयात् प्रमेही भविष्यतीति । सु.नि.६/३

- स्त्रोतोरोधबलभ्रंशगौरवानिलमूढताः ।
आलस्यापक्तिनिष्ठिवमलसंगारुचिक्लमाः । अ.ह.सू.१३/२३,२४
-वृध्दस्तु कुरुतेऽनिलः ॥
काश्यकाष्णयोष्णकामत्वकम्पानाहशकृद्ग्रहान
बलनिद्रेन्द्रियभ्रंशप्रलापभ्रमदीनताः ॥ अ.ह.सू.११/५-६
- दोषधातुमला मूलं सदा देहस्य तं चलः ।
उत्साहोच्छ्वासनिश्वासचेष्टावेगप्रवर्तनैः ॥ अ.ह.सू.११/१
- वातविण्मूत्रजृम्भाश्रुक्षवोद्गाद्वारवमीन्द्रियैः
क्षुत्तृष्णोच्छ्वासनिद्राणां धृत्योदावर्तसंभवः ॥
मा.नि.२७/१ उदावर्त निदानम्
- आमं विदग्धं विष्टब्धं कफपित्तानिलैस्त्रिभिः ।
अजीर्णं केचिदिच्छिन्ति चतुर्थं रसशेषतः ॥ मा.नि.६/५
- अत्यम्बुपानाद्विषमाशनाच्च संधारणात्स्वप्नविपर्ययाच्च ।
कालेऽपि सात्म्यं लघु चापि भुक्तमन्नं पाकं भजते नरस्य ॥
ईर्ष्याभयक्रोधपरिप्लुतेन लुब्धेन रुग्दैर्न्यनिपीडितेन ।
प्रद्वेषयुक्तेन च सेव्यमानमन्नं न सम्यक्परिपाकमेति ॥ मा.नि.६/७-८
- आमपक्वाशयचरः समानो वन्हिसङ्गतः ॥
सोऽन्नं पचति तज्जाञ्च विशेषान्विविक्त हि ॥
गुल्माग्निसादातीसारप्रभुतीन् कुरुते गदान् ॥ सु.नि.१/१६-१७
- मधुरस्निग्धशीतानि लवणाम्लगुरुणि च ।
अव्यायामो दिवास्वप्नः शय्यासनसुखे रतिः ॥ मा.नि.५/७ अर्श निदानम्
- व्यायामयानादतिमैथुनाच्च प्रजागराच्छित्तजलातिपानात् ।
कलायमुडगदाढकिकोरदूषादत्यर्थरुक्षाध्यशनाभिघातात् ।
मा.नि.२६/२ शुलादि निदानम्

- रूक्षशीताल्पजध्वन्नव्यवायातिप्रजागरैः ।
विषमादुपराच्च दोषासृक् स्त्रवणादपि ॥ मा.नि.२३/२
- मात्रयाऽप्यभ्यवहतं पथ्यं चान्नं न जीर्यति ।
चिन्ताशोकभयक्रोधदुःखशय्याप्रजागरैः ॥ मा.नि.६/९ च.वि.२/९
- अत्युष्णगुर्वन्नकषायतिक्तश्रमाभिघाताध्यशनप्रसङ्गै
संचिन्तनैवैगविधारणैश्च हृदामयः पश्चविधः प्रदिष्टः ॥ मा.नि.२९/१
- विरुद्धाध्यशनाजीर्णादामे चामे च पूरणात् ।
पिष्टान्नामपक्वानां मद्यानां गोरसस्य च ॥
गुर्वविष्यन्दिभोज्यानां वेगानां धारणस्य च ।
अत्युष्णस्निग्धरुक्षाम्लद्रवाणामतिसेवनात् ॥
फाणितेक्षुविकाराणां कुलत्थानां च शीलनात् ।
भृष्टधान्यपुलाकानां पृथुकानां तथैव च ॥
भुक्त्वा भुक्त्वा दिवास्वप्नादतिस्नानावगाहनात् ।
अन्तरोदकपानाच्च भुक्तषर्युषिताशनात् ॥
वातादयः प्रकुप्यन्ति तेषामन्यतमो यदा ।
मन्दीकरोति कायाग्निमग्नौ मार्दवमागते ॥
एतान्येव तथा भूयः सेवमानस्य दुर्मतेः ।
यत्किञ्चिदशितं पीतं देहिनस्तद्धि दह्यति ॥८॥
विदग्धं शुक्ततां याति शुक्तमामाशये स्थितम् ।
तदम्लंपित्तमित्यादुर्भूयिष्ठं पित्तदूषणात् । का.खि.१६/३-९

.....BIBLIOGRAPHY

BIBLIOGRAPHY

Sr. No.	Name of the Book	Author/Editor	Publication/ Edition
1.	Sarth Charaksanhita	Late Shankar Dajishastri Pade	Choukhamba Publication Khand-1
2.	Charaksanhita	Acharya Vidyadhar Shukla, Ravidatta Tripathi	Choukhamba Publication, 5 th Edition 2001
3.	Sushrutsanhita	Dr.B.G. Ghanekar	Mar.2004, Meherchand
4.	Charaksanhita Chakarapani Tika	Vd. Yadavji Trikamji Acharya	Choukhamba Publication, Edition 2001
5.	Sushrutsanhita with Nibandhsangraha commentary of Shri Dalhanacharya	Vaidya Yadavji T.Acharya	6 th Edition, 1997 Choukhamba Publication
6.	Ashtang Hrudaya	Kaviraj Atrideo Gupta	20 th Edition, 1997 Choukhamba Publication
7.	Sarth Waghbhat	Dr. Ganesh Garde	Anmol Publication
8.	Ashtang Sangraha	Ranade, Paranjape, Sathe	Anmol Publication, Edition 1998
9.	Harit Sanhita	Acharya Ramwallabhshastri	Pratya Publication, Varansi, Edition 1985
10.	Sharangdhar Sanhita	Pandit Sarangdharacharya	4 th Edition, 2000 Choukhamba Publication
11.	Bhavprakash	Pandit Brahmsankar Mishra	7 th Edition, 2000 Choukhamba Publication
12.	Kashyap Samhita (Vruddha Jivakiya Tandra)	Pandit Hemraj Sharma	Edition 2006, Choukhamba Publication, Varanasi
13.	Madhavnidan Madhukoshtika-1	Raghunandan Upadhyaya	Choukhamba Publication 2003
14.	Ayurvediya Triskandh Hetukosh Prathamkhand	Vaidya D.P. Gadgil	T.M.V. Edition 2004
15.	Swasthyavrutta	Ranade, Paranjape, Sathe	Anmol Publication, Edition 1995
16.	Swasthatur Pariksha	Ranade, Paranjape, Sathe	Anmol Publicati Edition 1989
17.	Swasthyavrutta Vidnyan	Dr. Ramharsha Singh	Choukhamba Publication 2002

Sr. No.	Name of the Book	Author/Editor	Publication/ Edition
18.	Vaidyakiya Subhashit Sahityam	Dr.D.B. Ghanekar	Choukhamba Publication, 7 th Edition
19.	Raghuvansham	Late R.G.Borvankar	Prasad Publication, Edition 1998
20.	Ayurvediya Shabdkosh Mahakosh	Venimadhav Shastri, N.H. Shastri	M.R.Sahitya & Sanskruti Mandal,1968
21.	Shabdkalpdrum Second Part	Raja Radhakant Deo	Nag Publication, Delhi, Edition 2002
22.	Sugam Sanskrit Vyakaran	P.S. Joshi	Nitin Publication, Pune
23.	Nidra ani Bhaya	Dr.H.V. Sardesai	Shri Vidya Publication, 1 st Edition, 2002
24.	Abhinav Manasrog Vidnyan	Dr. Bhatnagar	Surya Publication, Udaypur
25.	Kalyan Arogya Ank	Dr.Krishnakumar Dwivedi	Geeta Press, Gorakhpur, Edition 2001
26.	Swasthvrutta Vidnyan	Dr. Vijay Patrikar	Godavari Publication, Nagpur
27.	Yajurveda	S.K. Deodhar	Prasad Publication, Edition 1981
28.	Aitariya, Taitariya & Prashnonishad	S.K. Deodhar	Prasad Publication, Edition 1988
29.	Apli Upnishde, Apli Purane Skand Puran	P.N. Joshi	Prasad Publication, Edition 1990
30.	Manusmruti	Acharya Ramanand Saraswati	Manjoj Pocket Books, Edition 2000
31.	Text book of Medical Physiology	Guyton & Hall	10 th Edition
32.	Concise Text book of Psychiatry	VMD Namboodir	B.I. Churichill, 1 st Edition 2002
33.	Clinical Neurology	Dr.P.N. Panda	Interprint Publication, 2 nd Edition 1994

Sr. No.	Name of the Book	Author/Editor	Publication/ Edition
34.	Ferris Clinical Advisor	Fred F. Ferri	Edition 2005
35.	Davidsons Principles & Practice of Medicine		16 th Edition ELBS
36.	API Textbook of Medicine		7 th Edition, 2003
37.	Human Physiology	Dr. C.C. Chaterjee	Medical AlliedAgency, 1997 Edition
38.	Park's Textbook of Preventive & Social Medicine	K. Park	19 th Edition 2007 Banarasidas Bhanot Publication, Jabalpur

Web Documents

1. Copping with Shift work
2. Industrial Health 2005, 43, 58-62
3. July 2000 Issue of Biomedical Scientist
4. Commonwealth of Australia - www.dcita.gov.au/cca
5. World Socialist website - wsws.org
6. Only Punjab.com
7. British Medical Association 2004.
8. www.pjonline.com

The Pharmaceutical journal - vol.274
9. www.hermangroup.com

Annex – I

Master Charts –

**Please see the separate file in Excel format (File Name-
Master Charts_Final**

.....**ANNEX -II**

Annex- II

Tilak Maharashtra Vidyapeeth, Pune

Late PG Nanal

Dept. of Ayurveda

TO STUDY THE EFFECTS OF SATAT JAGARAN

(SLEEPLESS NIGHTS) ON HEALTH

Case Paper for Ph.D. Research

Researcher

Vd.R.N. Kulkarni

Guide

Prof.Dr. B.S. Keskar

संमती पत्र (Consent Form)

मी श्री / श्रीमती

वय वर्षे, असे लिहून देत आहे की, वैद्य राधेशाम नरहरराव

कुलकर्णी यांनी त्यांच्या प्रबंधासाठी सुरु केलेल्या सततच्या जागरणामुळे

आरोग्यावर होणारा परिणाम या उपक्रमामध्ये स्वेच्छेने सहभागी होत आहे .

दिनांक :-

सही

ठिकाण :-

नाव :-

सततच्या जागरणामुळे आरोग्यावर होणारा परिणाम

प्रश्नसूची पत्रक

संपूर्ण नाव :- _____ पत्रक क्र. _____

वय :- _____ वर्ष लिंग :- पुरुष / स्त्री

निवासाचा पत्ता :- _____

व्यवसायाचा पत्ता :- _____

वैवाहिक स्थिती :- विवाहित / अविवाहित

आहार :- शाकाहार / मिश्राहार

व्यसन :- तंबाखू / धूम्रपान / मद्यपान / कोणतेही नाही

आर्थिक स्थिती :-

उत्तम \geq १०,००० रुपये प्रति महिना

मध्यम ५,००० - १०,००० रुपये प्रति महिना

साधारण \leq ५,००० रुपये प्रति महिना

कृपया प्रश्नावली वाचून योग्य रकान्यात / ठिकाणी खूण (✓) करावी.

१) कामाचे स्वरूप

दिवसा	रात्री	बदलते
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२) व्यवसायाचे / कामाचे स्वरूप

बैठे काम / सतत बैठक	सतत उभे रहाणे	चंक्रमित/ फिरते
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- ३) व्यायाम
नियमित अनियमित अजिबात नाही
- ४) रात्री झोपताना लगेचच झोप लागते काय ?
होय नाही काही वेळाने
- ५) रात्रीची झोप गाढ व नियमित होते काय ?
होय नाही
- ६) एकूण २४ तासातील झोपेचा कालावधी
५ - ६ तास ७ - ८ तास त्यापेक्षा कमी
- ७) रात्री झोपेचा कालावधी
५ - ६ तास ७ - ८ तास ५ तासापेक्षा कमी
- ८) प्रत्यक्ष कामाचा कालावधी तास
- ९) जागरणाचा एकूण कालावधी तास
- १०) रात्री जागरणानंतर दुसऱ्या दिवशी झोप घेता काय ?
होय नाही
- ११) झोप घेत असल्यास झोपेची वेळ कोणती ?
जेवण्यापूर्वी जेवणानंतर

१२) रात्रपाळी

१ - २ तास

२ - ३ तास

त्यापेक्षा जास्त

१३) दुसऱ्या दिवशी झोप घेतल्यामुळे रात्री निर्माण झालेल्या लक्षणांचा नाश होतो काय ?

होय

काही प्रमाणात

नाही

१४) रात्री जागरणामुळे तुमच्या कामावर परिणाम होतो काय ?

होय

नाही

१५) आदल्या दिवशी जागरणानंतर दुसऱ्या दिवशी झोपेसाठी औषधे घेण्याची गरज भासते काय ?

होय

नाही

कधीतरी

१६) वर्षभरात आजारी पडण्याचे प्रमाण

अजिबात नाही

केव्हातरी

सतत / वारंवार

१७) व्यवसायादरम्यान झालेले आजार

रक्तदाब

मधुमेह

हृदयविकार

मानसिक आजार

अम्लपित्त

मूळव्याध

कोणताही नाही

इतर आजार

नोकरी दरम्यान तुमच्या शारीरिक व मानसिक स्थितीत काही बदल झाला का ?

कौटुंबिक स्वास्थ्यवर त्याचा काय परिणाम झाला ?
(कृपया आपण आपल्या प्रतिक्रिया नोंदवाव्यात)

रात्री जागरणानंतर, झोप न मिळाल्यामुळे वाटणारे/दिसणारे परिणाम (लक्षण)

	अजिबात नाही	काही प्रमाणात	अधिक प्रमाणात
१. अंगमर्द / अंगदुखी			
२. जांभया			
३. आळस			
४. डोके जड पडणे / (शिरोगौरव)			
५. हस्तपाद / संधिशूल (हातापायाचे सांधे दुखणे)			
६. अपचन			
७. मुत्रदाह (लघवीला जळजळ)			
८. नेत्रदाह (डोळ्यांची आग होणे)			
९. मलावरोध (संडास साफ न होणे)			
१०. क्षुधामांघ (भूक न लागणे)			
११. निरुत्साह (उत्साह न वाटणे)			
१२. निद्रानाश (झोप न येणे)			
१३. लैंगिक तक्रारी			

संबंधित व्यक्तीची मुलाखत

१. अ. किती वर्षापासून हि नोकरी करता ? _____ वर्षापासून
 ब. कामाचे नेमके स्वरूप _____

- क. रात्रपाळी किती वर्षापासून करता ? _____
२. आठवड्यातून/ महिन्यातून किती दिवस रात्रपाळी : _____ दिवस
३. रात्रपाळीचा कालावधी _____ P.M. ते _____ A.M.
४. रात्रपाळी झाल्यानंतर सकाळी दंतधावन करता का ? _____ होय/नाही
 करीत असला तर कशाने व किती वाजता ? दंतमंजन/ टूथपेस्ट _____ वा.
 ड्युटीवर असताना कि घरी गेल्यानंतर _____
५. आंघोळीपूर्वी अभ्यंग करता काय ? _____ होय/नाही
 करीत असल्यास आठवड्यातून किती वेळा _____
६. आंघोळ कोणत्या पाण्याने करता ? _____ थंड/गरम
७. रात्री काही वेळाने झोप लागत असल्यास किती वेळाने?
८. अंगमर्द इत्यादी शारीरिक/ मानसिक आजार/ _____ होय/नाही लक्षणे
 नोकरीला लागण्यापूर्वी होती काय ? _____ सदरील
 लक्षणे नोकरी लागल्यानंतर किती काळाने सुरु झाली ? _____
९. रात्रपाळीला जाण्यापूर्वी घरी जेवण करता का? _____ होय/नाही
 किती वाजता? _____
 डबा नेत असल्यास जेवण किती वाजता करता? _____
१०. रात्रपाळी संपल्यावर घरी जाऊन किती _____
 वाजता व किती वेळ झोपता?

११. झोपेसाठी काही औषधे घ्यावी लागतात काय ? होय/नाही
असल्यास कोणती - त्यांची नावे / किती प्रमाणात/ कधीपासून
१२. अ. कामावर असतांना विश्रांती घेता काय ? होय/नाही
ब. घेत असल्यास त्याचे स्वरूप : खुर्चीवर बसून / आडवे झोपून
१३. कामावर असतांना झोप न येण्यासाठी काय उपाय करता ? _____
१४. रात्रपाळीविषयी व्यवस्थापनास तुम्हाला होय/नाही
काही सुचवायचे आहे काय?

१५. सल्ला :-

प्रकृती परिक्षण

	वात	पित्त	कफ
आकृती			
वर्ण			
अग्नि			
आहार			
कोष्ठ			
तृष्णा			
निद्रा			
बल			
सत्त्व			
बुद्धी			

वजन _____ किलो रक्तदाब _____ mm of Hg

प्रकृती विनिश्चय -

: सूचना :

१. रात्रीच्या जागरणामुळे होणारे दुष्परिणाम कमी होण्यासाठी खालील सूचना पाळाव्यात.
२. जागरण झाल्यानंतर दुसऱ्या दिवशी जेवणापूर्वी जागरण झालेल्या काळाच्या निम्म्या वेळ झोप घ्यावी.
३. रात्री जागरणाच्या काळात चहा, सुपारी, तंबाखु इ.टाळावेत. व शक्यतोवर खाद्यपदार्थ ही टाळावेत.

±ÉIÉHÉÄ

<p>अंगमर्द:-</p> <ol style="list-style-type: none">१. अजिबात जाणवत नाही.२. पंधरा मिनिटे ते अर्धा तासापर्यंत.३. अर्ध्या तासापेक्षा जास्त वेळापर्यंत. <p>जांभया:-</p> <ol style="list-style-type: none">१. अजिबात नाही.२. पंधरा मिनिटे ते अर्धा तासापर्यंत.३. अर्ध्या तासापेक्षा जास्त वेळापर्यंत. <p>आळस:-</p> <ol style="list-style-type: none">१. अजिबात नाही.२. पंधरा मिनिटे ते अर्धा तासापर्यंत.३. अर्ध्या तासापेक्षा जास्त वेळापर्यंत. <p>शिरोगौरव:-</p> <ol style="list-style-type: none">१. अजिबात होत नाही.२. केव्हातरी होतो.३. वारंवार / रोज होतो. <p>हस्तवाद संधिशूल:-</p> <ol style="list-style-type: none">१. अजिबात होत नाही.२. सांधे दुखतात पण काम करता येते.३. सांधेदुखिमुळे दैनंदिन कामात अडथळा येतो. <p>अपचन:-</p> <ol style="list-style-type: none">१. अजिबात होत नाही.२. केव्हातरी होते.३. वारंवार/रोज होते.	<p>मुत्रदाह:-</p> <ol style="list-style-type: none">१. अजिबात होत नाही.२. केव्हातरी होतो.३. वारंवार/रोज होतो. <p>नेत्रदाह:-</p> <ol style="list-style-type: none">१. अजिबात होत नाही.२. केव्हातरी होतो.३. वारंवार/रोज होतो. <p>मलावरोध:-</p> <ol style="list-style-type: none">१. अजिबात होत नाही.२. केव्हातरी होतो.३. वारंवार / रोज होतो. <p>क्षुधामांध:-</p> <ol style="list-style-type: none">१. भूक व्यवस्थित लागते.२. भूक नियमित/व्यवस्थित लागत नाही.३. भूक कमी लागते/जाणवत नाही <p>निरुत्साह:-</p> <ol style="list-style-type: none">१. सतत उत्साह वाटतो.२. केव्हातरी निरुत्साह वाटतो.३. वारंवार/रोज निरुत्साह वाटतो. <p>निद्रानाश:-</p> <ol style="list-style-type: none">१. झोप व्यवस्थित लागते .२. झोप अधुनमधून खंडित होते.३. झोप लागत नाही. <p>लैंगिक तक्रारी:-</p> <ol style="list-style-type: none">१. अजिबात नाहीत.
--	--

- | | |
|--|--|
| | २. अधुन मधून होतात.
३. वारंवार/रोज होतात. |
|--|--|

Annex-II

२ÉÍÉÍÉSªÉÉ (´ÉÉ®ÆÚ´ÉÉ®Ú) VÉÉMÉ®ÚHÉÉ`ÉÖªÄÝ
+É®ÚÉÄMªÉÉ´É®Ú ½PÉÄHÉÉ®ÚÉ {ÉÊ®ÚHÉÉ`É

A1 - +XÉÖGÒ`ÉÉÆEÒ

B1 - ²ÉÆ{ÉÚHÉÇ XÉÉ´É

C1 - ´ÉªÉ

1. 20 IÉÄ 30 ´É¹ÉÆ NÙ®Ú`ªÉÉXÉ

2. 31 IÉÄ 40 ´É¹ÉÆ NÙ®Ú`ªÉÉXÉ

3. 41 IÉÄ 50 ´É¹ÉÇ NÙ®Ú`ªÉÉXÉ

D1 - Ê±ÉMÉ

1. {ÉÖÀ°Ü¹É

2. ²JÉÒ

E1 - ´ÉÈ´ÉÉÊ½PEÒ Î°LÉÍÉÒ

1. Ê´É´ÉÉÊ½IÉ

2. +Ê´É´ÉÉÊ½IÉ

F1 - +É½PE®Ú

1. ¶ÉÉÉÖÉ½PE®Ú

2. Ê`É, ÉÉ½PE®Ú

G1 - ´ªÉªÉXÉ

1. IÉÆªÉÉJÉÖ, MÉÖ]ÖJÉÉ, ÊªÉMÉÉ®ÄÚ]Ö/ ÊªÉB+Ò

2. `ÉT{ÉÉXÉ

3. IÉÆªÉÉJÉÖ, MÉÖ]ÖJÉÉ, ÊªÉMÉÉ®ÄÚ]Ö/ ÊªÉB+Ò,

`ÉT{ÉÉXÉ

4. Εὐσυνέλιξις ἡμιπύλου

H1 - Ἐπιπέδου ἰσοπέδου

1. =Κεῖσε - ὄμ. 10,000 {ἐπιπέδου ἰσοπέδου | ἐπιπέδου ἡμιπύλου
2. Ἐπιπέδου ἰσοπέδου - ὄμ. 5,000 ἰσὺς 10,000 | ἐπιπέδου ἡμιπύλου
3. Ἐπιπέδου ἰσοπέδου - ὄμ. 5,000 {ἐπιπέδου ἰσοπέδου
| ἐπιπέδου ἡμιπύλου

I1 - ἐπιπέδου ἰσοπέδου ἠεροπέδου ἑπὶ ἐπιπέδου ἰσοπέδου ἐπιπέδου ἰσοπέδου

1. 1 ἰσὺς 10 ἑπὶ ἐπιπέδου ἰσοπέδου
2. 11 ἰσὺς 20 ἑπὶ ἐπιπέδου ἰσοπέδου
3. 21 {ἐπιπέδου ἰσοπέδου ἠεροπέδου ἑπὶ ἐπιπέδου ἰσοπέδου

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J1 - Εὐσυνέλιξις ἡμιπύλου

1. Ἐπιπέδου ἰσοπέδου
2. ἐπιπέδου ἰσοπέδου
3. ἐπιπέδου ἰσοπέδου

K1 - Εὐσυνέλιξις ἡμιπύλου

1. Ἐπιπέδου ἰσοπέδου ἠεροπέδου
2. Ἐπιπέδου ἰσοπέδου = ἰσὺς ἐπιπέδου ἡμιπύλου
3. Σέλιξις ἡμιπύλου ἐπιπέδου ἰσοπέδου

L1 - Ἐπιπέδου ἰσοπέδου

1. Ἐπιπέδου ἰσοπέδου ἠεροπέδου
2. Ἐπιπέδου ἰσοπέδου ἠεροπέδου
3. Ἐπιπέδου ἰσοπέδου ἠεροπέδου

M1 - (ἐπιπέδου ἰσοπέδου ἠεροπέδου ἠεροπέδου) ἐπιπέδου ἰσοπέδου ἠεροπέδου ἠεροπέδου ἐπιπέδου ἰσοπέδου ἠεροπέδου

1. 5 IÉÄ 6 IÉÉ^oÉ
2. 7 IÉÄ 8 IÉÉ^oÉ
3. 5 IÉÉ^oÉÉÆ{ÉÄIÉÉ EÒ[~]ÉÒ

N1 - ©ÚÉJÉ{ÉÉ^sÝÒSÉÉ EÒÉ±ÉÉ ´ÉVÉÒ

1. 8 IÉÉ^oÉ ÈEÒ ´ÉÉ 8 IÉÉ^oÉÉ{ÉÄIÉÉ EÒ[~]ÉÒ
2. 8 IÉÉ^oÉÉ{ÉÄIÉÉ +ÍVÉEÒ

O1 - ©ÚÉJÉ{ÉÉ^sÝÒIÉÒ±É |ÉI^aÉIÉ VÉÉMÉ©ÚHÉÉSÉÉ
EÒÉ±ÉÉ ´ÉVÉÒ

1. 7 IÉÉ^oÉÉ{É^aÉÈIÉ
2. 7 IÉÉ^oÉÉÆ{ÉÄIÉÉ +ÉVÉEÒ

P1 - ©ÚÉJÉÝÒ ZÉÉÄ{ÉIÉÉXÉÉ ±ÉMÉÄSÉSÉ ZÉÉÄ{É
±ÉÉMÉIÉÄ EÒÉ^aÉ?

1. ½PÉÄ^aÉ - +V^aÉÉÇ IÉÉ^oÉÉS^aÉÉ +ÉIÉ
2. EÒÉ½PÒ ´ÉÄ^sÝÉXÉÄ - +V^aÉÉÇ IÉÄ BEÒ IÉÉ^oÉÉS^aÉÉ
NÜ©Ú[~]ÉÉXÉ
3. XÉÉ½PÒ - BEÒ IÉÉ^oÉÉ{ÉÄIÉÉ VÉÉ^oÉ
´ÉÄ^sÝÉXÉÆIÉ©Ú

Q1 - (©ÚÚÉJÉ{ÉÉ^sÝÒ XÉ^oÉIÉÉXÉÉ) ©ÚÉJÉÒ ZÉÉÄ{É
ÉXÉ^aÉÈ[~]ÉIÉ ´É MÉÉFØ ½PÉÄIÉÄ EÒÉ^aÉ?

1. ½PÉÆÄ^aÉ
2. XÉÉ½PÒ

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R1 - ©ÚÉJÉ{ÉÉ^sÝÒXÉÆIÉ©Ú NÖÙ^oÉ-^aÉÉ ÊNÜ ´É¶ÉÒ ZÉÉÄ{É
PÉÄIÉÉ EÒÉ^aÉ?

1. ½PÉÄ^aÉ
2. XÉÉ½PÒ

S1 - ZÉÄÄ{É PÉÄIÉ +^ºÉ+^ªÉÉ^ºÉ ZÉÄÄ{ÉÄSÉÒ ´ÉÄ^ºÝ
EÒÉÄHÉIÉÒ?

1. +É¹/₂ÐÉ@Ú PÉÄH^ªÉÉ{ÉÚ´ÉÒ
2. +É¹/₂ÐÉ@Ú PÉÄIÉ+^ªÉÉXÉÆIÉ@Ú

T1 - (@ÚÚÉJÉ{ÉÉ^ºÝØXÉÆIÉ@Ú) ÊNÙ´É^ºÉÉ ZÉÄÄ{ÉÄSÉÉ
EÒÉ±ÉÉ´ÉVÉÒ

1. Ú1 IÉÄ 2 IÉÉ^ºÉ
2. 2 IÉÄ 3 IÉÉ^ºÉ
3. 3 IÉÉ^ºÉÉÆ{ÉÄIÉÉ +ÉVÉÉÒ

U1 - NÖÙ^ºÉ-^ªÉÉ ÊNÙ´É¶ÉÒ ZÉÄÄ{É PÉÄIÉ+^ªÉÉXÉÄ
(VÉÉMÉ@ÚHÉÉ´ÉÖ^ºÄÝ ZÉÉ±ÉÄ±^ªÉÉ) ±ÉIÉHÉÉÆSÉÒ
IÉÒµÉIÉÉ EÒ´ÉÒ ¹/₂ÐÉÄIÉÄ EÒÉ^ªÉ?

1. ¹/₂ÐÉÄ^ªÉ
2. EÒÉ¹/₂ÐÒ |É´ÉÉHÉÉIÉ ¹/₂ÐÉÄIÉÄ
3. XÉÉ¹/₂ÐÒ

V1 - VÉÉMÉ@ÚHÉÉ´ÉÖ^ºÄ IÉÖ´ÉS^ªÉÉ NÈÙXÉÆÊNÙXÉ
EÒÉ´ÉÉ´É@Ú {ÉÉ@ÚHÉÉ´É ¹/₂ÐÉÄIÉÉÄ EÒÉ^ªÉ?

1. ¹/₂ÐÉÄ^ªÉ
2. XÉÉ¹/₂ÐÒ

W1 - @ÚÉJÉ{ÉÉ^ºÝØXÉÆIÉ@Ú NÖÙ^ºÉ-^ªÉÉ ÊNÙ´É¶ÉÒ
ZÉÄÄ{ÉÄ^ºÉÉ`ÖÒ +ÉÈ¹ÉVÉÄ P^ªÉÉ´ÉÒ ±ÉÉMÉIÉÉIÉ EÒÉ^ªÉ?

1. ¹/₂ÐÉÄ^ªÉ
2. XÉÉ¹/₂ÐÒ
3. EÒVÉÒIÉ@ÚÒ

X1 - ´ÉÉÇ|É@ÚÉIÉ +ÉVÉÉ@ÚÒ {ÉB+H^ªÉÉSÉÄ |É´ÉÉHÉ

1. °ÉÍÉÍÉ - °ÉÊ½PΧ³ÉÉÍÉÚΧÉ ÊΕÒ °ÉΧΧÉ ΒΕÒ ´ÉÄ³ÝÉ
+É®ÚÉÄM³ÉÉS³ÉÉ °É °É³³ÉÉ =NÜÄ|É´ÉÍÉÍÉ´É
I³ÉÉ³ÉÉ`ÖÒ +ÉÈ¹ÉVÉÉÄ{ÉSÉÉ®Ú P³ÉÉ´ÉÄ
±ÉÉMÉÍÉÉÍÉ.

2. ΕÄÒ´½PÉÍÉ®ÚÒ - 2 IÉÄ 3 °ÉÊ½PΧ³ÉÉÍÉÚΧÉ ΒΕÒNÜÉ
+É®ÚÉÄM³ÉÉS³ÉÉ °É °É³³ÉÉ =NÜÄ|É´ÉÍÉÍÉ´É
I³ÉÉ³ÉÉ`ÖÒ +ÉÈ¹ÉVÉÉÄ{ÉSÉÉ®Ú P³ÉÉ´ÉÄ
±ÉÉMÉÍÉÉÍÉ.

3. +ÉVÉ³ÉÉÍÉ ΧÉÉ½PÒ

Annex-II

Y1 - VÉÉMÉ®ÚHÉÉ`ÉÖ³ÄÝ½PÉÄHÉÉ-³ÉÉ ±ÉÍÉHÉÉÆSÉÒ
°ÉÖ°Ü´ÉÉÍÉ, +É®ÚÉÄÄM³ÉÉ´É´É³³ÉÉÒ IÉGÒÉ®ÚÒ ΧÉÉÈΕÒ®ÚÒ
(®ÚÉJÉ{ÉÉ³ÝÒ)

±ÉÉMÉ±³ÉÉΧÉÆÍÉ®Ú ÊΕÒIÉÒ´É¹ÉÇΧÉÆÍÉ®Ú °ÉÖ°Ü
ZÉÉ±³ÉÉ?

1. 1 IÉÄ 5´É¹ÉÇΧÉÆÍÉ®Ú

2. 6 IÉÄ 10´É¹ÉÇΧÉÆÍÉ®Ú

3. 11´É¹ÉÇΧÉÆÍÉ®Ú

Z1 - ΧÉÉÈΕÒ®ÚÒNÜ®Ú³ÉÉΧÉ ΕÒÉ½PÒ +ÉVÉÉ®Ú ZÉÉ±ÉÄ
+É½ÄPÍÉ ΕÒÉ³ÉÚ?

1. ½PÉÆÄ³É

2. ΧÉÉ½PÒ

A2 - @ÚCIÉÑÙÉ¤É ZÉÉ+ÉÉ ΕΟÉ³É? Ò

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

B2 - ¨ÉVÉÖ¨ÉÄ½P ZÉÉ+ÉÉ ΕΟÉ³É?

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

C2 - ¿NÙ³ÉÊ´ÉΕΟÉ@Ú ZÉÉ+ÉÉ ΕΟÉ³É?

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

D2 - ¨ÉÉΧÉÊºÉΕΟÒ+ÉVÉÉ@Ú ZÉÉ+ÉÉ ΕΟÉ³É?

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

E2 - +¨+ÉÊ{ÉΚÉ ZÉÉ+ÉÄ ΕΟÉ³É?

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

F2 - ¨ÉÚ³Ý´³ÉÉVÉ <. ΜΕÖNÙÊ´ÉΕΟÉ@Ú ZÉÉ+ÉÄ ΕΟÉ³É?

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

G2 - ´É@ÚÒ±É +ÉVÉÉ@ÚÉ´³ÉÊΙÉÊ@ÚCΙÉ <ΙÉ@Ú +ÉVÉÉ@Ú
ZÉÉ+ÉÄ ΕΟÉ³É?

1. ½PÉÄ³É

2. ΧÉÉ½PÒ

H2 - +ÆΜÉ¨ÉÑÇÙ

1. +ÉVÉ¤ÉÉΙÉ ΧÉÉ½PÒ

2. 15 Ê " É. IÉÄ +V³ÉÉÇ IÉÉ°ÉÉ{É³ÉÈIÉ

3. +V³ÉÉÇ IÉÉ°ÉÉ{ÉÄIÉÉ +ÊVÉÈÒ ÈÒÉ³ÝÉ{É³ÉÈIÉ

I2 - VÉÉÆ|É³ÉÉ

1. +ÊVÉ°ÉÉIÉ ΧÉÉ½PÒ

2. 15 Ê " É. IÉÄ +V³ÉÉÇ IÉÉ°ÉÉ{É³ÉÈIÉ

3. +V³ÉÉÇ IÉÉ°ÉÉ{ÉÄIÉÉ +ÊVÉÈÒ ÈÒÉ³ÝÉ{É³ÉÈIÉ

J2 - +É³Ý°É

1. +ÊVÉ°ÉÉIÉ ΧÉÉ½PÒ

2. 15 Ê " É. IÉÄ +V³ÉÉÇ IÉÉ°ÉÉ{É³ÉÈIÉ

3. +V³ÉÉÇ IÉÉ°ÉÉ{ÉÄIÉÉ +ÊVÉÈÒ ÈÒÉ³ÝÉ{É³ÉÈIÉ

K2 - ÊΠÉ⊙ÚÉÄMÉÈÈ⊙Ú´É

1. +ÊVÉ°ÉÉIÉ ½PÉÄIÉ ΧÉÉ½PÒ

2. ΕΑÒ´½PÉIÉ⊙ÚÒ ½PÉÄIÉÄÄ

3. ´ÉÉ⊙ÆÚ´ÉÉ⊙Ú ½PÉÄIÉÄÄ

L2 - ½P°IÉ{ÉÉNÙ/°ÉÆÊVÉΠÉÚ±É

1. +ÊVÉ°ÉÉIÉ ½PÉÄIÉ ΧÉÉ½PÒ

2. °ÉÉÆVÉÄ NÖÙJÉIÉÉIÉ {ÉHÉ ÈÒÉ´É ÈÒ⊙ÚIÉÉ °ÉÄIÉÄ

3. °ÉÉÆVÉÄ NÖÙJÉÒ´ÉÖ³ÄÝ NÈÙΧÉÆÊNÙΧÉ ÈÒÉ´ÉÉIÉ
+B+LÉ³ÝÉ °ÉÄIÉÄÄ

M2 - +{ÉSÉΧÉ

1. +ÊVÉ°ÉÉIÉ ½PÉÄIÉ ΧÉÉ½PÒ

2. ΕΑÒ´½PÉIÉ⊙ÚÒ ½PÉÄIÉÄÄ

3. ´ÉÉ⊙ÆÚ´ÉÉ⊙Ú ½PÉÄIÉÄÄ

N2 - ´ÉÚJÉNÙÉ½P

1. +ÊVÉ°ÉÉIÉ ½PÉÄIÉ ΧÉÉ½PÒ

2. ΕΛΛΟ΄ ½ΠΕΙΕΘΟΥΟΥ ½ΠΕΑΙΕΕΑ

3. ΄ΕΕΘΑΕΥ΄ΕΕΘΥ ½ΠΕΑΙΕΕΑ

Annex-II

O2 - ΧΕΑΙΕΝΥΕ ½Π

1. +ΕΝΕΠΕΕΙΕ ½ΠΕΑΙΕ ΧΕΕ ½ΠΟ

2. ΕΛΛΟ΄ ½ΠΕΙΕΘΟΥΟΥ ½ΠΕΑΙΕΕΑ

3. ΄ΕΕΘΑΕΥ΄ΕΕΘΥ ½ΠΕΑΙΕΕΑ

P2 - ΄Ε±ΕΕ΄ΕΘΥΕΑΝΕΠ

1. +ΕΝΕΠΕΕΙΕ ½ΠΕΑΙΕ ΧΕΕ ½ΠΟ

2. ΕΛΛΟ΄ ½ΠΕΙΕΘΟΥΟΥ ½ΠΕΑΙΕΕΑ

3. ΄ΕΕΘΑΕΥ΄ΕΕΘΥ ½ΠΕΑΙΕΕΑ

Q2 - ΙΕΘΥΕΕ΄ΕΕΑΕΤ

1. ΄ΕΥΕΘ΄ΑΕ΄ΕΙΠΛΕΙΕ ±ΕΕΜΕΙΕΑΠ

2. ΄ΕΥΕΘ +ΥΕΥΧΕ΄ΕΝΕΥΧΕ ΕΛΛΟ΄ ½ΠΕΙΕΘΟΥΟΥ ±ΕΕΜΕΙΕΑ

3. ΄ΕΥΕΘ ΕΘ΄ΕΘ ±ΕΕΜΕΙΕΑ/±ΕΕΜΕΙΕ ΧΕΕ ½ΠΟ

R2 - ΕΧΕ΄ΥΙΠΕΕ ½ΠΟ

1. ΠΕΙΕΙΕ =ΠΕΕ ½Π ΄ΕΕ]ΘΙΕΕΑ

2. ΕΛΛΟ΄ ½ΠΕΙΕΘΟΥΟΥ ΕΧΕ΄ΥΙΠΕΕ ½Π ΄ΕΕ]ΘΙΕΕΑ

3. ΧΕΑΑ ½Π΄ΕΘ ΕΧΕ΄ΥΙΠΕΕ ½Π ΄ΕΕ]ΘΙΕΕΑ

S2 - Υ ΕΧΕΠΥΕΧΕΕΠΕ

1. ΄ΑΕ΄ΕΙΠΛΕΙΕ ΖΕΕΑ{Ε ±ΕΕΜΕΙΕΑ

2. ΖΕΕΑ{Ε +ΥΕΥΧΕ΄ΕΝΕΥΧΕ ΙΕΑΒ+ΘΙΕ ½ΠΕΑΙΕΑ

3. ΖΕΕΑ{Ε ±ΕΕΜΕΙΕ ΧΕΕ ½ΠΟ

T2 - ±ΕΕΕΜΕΕΘ ΙΕΓΘΕΘΟΥΟΥ

1. +ΕΝΕΠΕΕΙΕ ΧΕΕ ½ΠΘΙΕ

2. +VÉÚXÉ`ÉVÉÚXÉ JÉÉ°É ½PÉÄIÉÉÄ/VÉÉHÉ`ÉIÉÉÄ

3. `ÉÉ@ÆÚ`ÉÉ@ ½PÉÄIÉÉIÉÚ

U2 - |ÉEPÒIÉÒ

1. `ÉÉIÉÊ{ÉJÉVÉ 2. EÒ;ÒÊ{ÉJÉVÉ 3.

`ÉÉIÉEÒ;ÒVÉ

4. EÒ;Ò`ÉÉIÉVÉ 5. Ê{ÉKÉ`ÉÉIÉVÉ 6.

Ê{ÉKÉEÒ;ÒVÉ

.....**ANNEX -III**



**ASHWINI HOSPITAL AND
RAMAKANT HEART CARE CENTRE**

Shivaji Nagar, Nanded - 431 602. ☎: 235611, 235644, 230777

Date: 16-12-07

CERTIFICATE

This is to certify that **Vd. R. N. Kulkarni** has
interactions with our hospital staff on the subject

**“TO STUDY THE EFFECTS OF SATAT JAGRAN
(SLEEPLESS NIGHT) ON HEALTH”**

Hence certified

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Date:- 30/01/08

CERTIFICATE

This is Certify that Vd. R.N.Kulkarni has interactions with our

staff on the subject "TO STUDY THE EFFECTS OF SATAT JAGRAN

(SLEEPLESS NIGHT) ON HEALTH."

Hence Cetified.

For WUDTOOLS


Personnel Officer

.....**ANNEX -IV**

ANNEX - IV

EXPECTATIONS OF THE NIGHT SHIFT WORKERS AS RECORDED DURING THE STUDY.

- Healthy atmosphere at working place like adequate light, clean and neat place.
- Short, interval in between night shift.
- Night duty hours needs to be minimized if possible.
- Need to provide sound protection devices to those who are working on machines.
- General health check-up at regular interval.
- Need of sufficient sanitary facilities.
- There should not be target oriented work at least in night hours.
- Night shift should not be compulsory particularly in females as far as possible.

Diseases

Disease	Test	Control
Hypertension	6	5
Diabetes	3	2
Cardiac Disorder	4	0
Pschiatry Disorder	5	1
Anorectal Disorder	9	7
Amlapitta	29	15

Above figure indicates No. of persons

Lakshanas

LAKSHAN	Not Felt		Till 15 to 30 Min.		More than 1/2 hour	
	Test	Control	Test	Control	Test	Control
Angamarda	30	89	66	11	4	0
Jrumbha	34	93	64	7	2	0
Aalasya	25	93	72	7	3	0
Hastapadashula	68	94	29	6	3	0

LAKSHAN	Not Felt		Occasionally		Frequently	
	Test	Control	Test	Control	Test	Control
Shirogaurav	49	91	47	9	4	0
Aapachana	54	92	42	8	4	0
Mutradaha	76	100	23	0	1	0
Netradaha	58	98	38	2	4	0
Malavastambha	58	93	38	6	4	1
Agnimandya	49	93	47	7	4	0
Nidranash	65	97	32	3	3	0
Laingik samasya	87	99	12	1	1	0

Above figure indicates No. of percentage

