

Research Article

The study of Insomnia in menopausal age group w.s.r. to different deha-prakruti

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ABSTRACT:

Introduction: Sleep is the basic tripod of life on which the balance of health depends. Adequate amount of sleep is essential for the good physical as well as psychological health. Insomnia now a days being commonest symptom of many psychophysical disorders. Females of menopausal age group show highest rate of this occurrence. Not only the age group of female but also the *Prakruti* of that female also affect the picture of any change in the body. **Methods:** females of menopausal age group are categorised in three basic Dosh Pradhan *Prakruti*, picture of insomnia is noted and tabulated grade wise. **Result:** by analysing the observational data, result has been drawn, that how *Prakruti* of the female affect menopausal insomnia. **Discussion:** importance of *Nidra* (sleep), need of the study, causes and effects of insomnia in menopausal age group, observations, are discussed in details.

KEY WORDS: *Nidra, Trayopstambh, Nidranash, Bhutadhatri*

INTRODUCTION:

Ayurveda regards *Nidra* (sleep) as one of the most essential factors responsible for a healthy and fulfilling life. It is one of the *Trayopastambhas*¹ (three great subsidiary pillars) on which a person's health is firmly balanced. When body organs and mind are exhausted due to day time work; they leave their subjects for a temporary phase called as *Nidra*. Sound sleep at night is a natural and nourishing phenomenon, so it is also called *Bhutadhatri*² (nourishes all living beings). Quality sleep is an indicator of good health as it is stress-relieving and normalizes bodily tissues.

Insomnia, i.e. *Nidranash* (Insomnia) is now a days being the most found symptoms associated with psychosomatic disease conditions. The most common symptom found in the females of age group 45 to 55 years. Generally, post-menopausal women are less satisfied with their sleep and as many as 61% report insomnia symptoms.³

Every physio-pathological condition in body is affected by the *Prakruti*⁴, thus it is assumed that there might relation between *Prakruti* & clinical picture of

menopause. Severity of the Insomnia may depend on the *prakruti* of that particular female. If the association is considerable, then it will allow the physician to consider the factor of *Prakruti* before dealing with the treatment. Treatment may improve with only inclusion of some advices regarding the *Prakruti*.

Aim:

To study the Insomnia in menopausal age group in females of different *Deha-Prakruti*

Objectives:

1. To study an Importance of sleep in day to day life
2. To evaluate causes, symptoms and frequency of insomnia in menopausal age group.
3. To measure or to access the extent or depth of menopausal Insomnia in different *Deha-Prakruti* of female.

Need/rational of study:

Female in the age group of 40-55 covers more than 60 million populations in India. All these are suffering

same kind of symptomatic pattern in, more or less amount, hence to achieve the stability of health in this era of female's life one must deal with the most common symptom that is Insomnia (61%). This is non-highlighted point in previous studies that by knowing the *Prakruti* of that female it becomes easy to diagnose the severity of Insomnia and to advise the treatment.

Review of the literature:

• Review of Nidra

It has been also stated that *Nidra* is the non-suppressible urge ⁵(*Adharniya Vega*) which on suppressing can various symptoms like yawning, drowsiness, headache, etc. Adequate hours of sleeping are required for all the levels of wellbeing such as mental, physical, etc. the famous English writer Shakespeare wrote that Chief nourisher at life's feast. Sleep indeed is a positive thing and creative process, recharging the life's battery.

"Nidrayatam sukham dukham Pushtihi karshyam balaabalam vrushata kleebata dnyanam adnyanam jeevitam na cha "ch su 21 /36 ...406

In this shloka *Achary Charak* reveals that *Nidra* is the thing which when taken in appropriate manner can lead to *Dhatu- Samya* which is the reason of happiness, good built, strength, sexual potency, and good knowledge. While *Nidra* in lesser or more amount can cause the opposite effects or an invitation to death (*Kaalratri*)⁶

. *Nidranaash* is caused by older age, excessive purgation (*Ativirechana*), vomiting, fear, anxiety, avoiding sleep in the night leads to vitiation *Vata* and *Pitta Dosh*a. and increased level of *Ruksha Guna*.⁷

According to modern medical sciences, Sleep is essential for body growth,⁸ as it lowers the rate of degeneration (catabolic) and increase the anabolic reactions. as age increases the amount of sleep needed also declines its quite (normal) physiological thing, but in the females of menopausal age group suffer from many sign and symptoms which are the causes of insomnia. And insomnia leading furthermore derangement of health and thus worsening the picture of the climacteric.

• Review of Menopause:

According to Ayurveda & modern medicine a woman starts her reproductive life after menarche i.e. starting of menstrual cycle & ends at the time of

menopause. Normal condition if concerned, the age of both, being 12-14 years and 45-55 years respectively.

Rajonivrutti according to *Ayurveda*, is nothing but the pause of *Artav Chakra* (menstrual cycle); because of the age (*Jara Awastha*). *Rajonivrutti* (described in *Samhitas*) occurs at about 50 years of age. (*Yati Panchashat Kshayam*).⁹

At this epoch of female's life there is *Jarapakwa sharir* i.e. degenerative changes are going to start; explained by *Shushrut. Acharya Dalhan* in his commentary said that there is no sudden stoppage of menstrual cycle, it takes about 2 to 5 years to stop permanently. (Phase of climacteric according to modern sciences) At this time woman have to face symptoms of *Avrut Vata*; that are joint pain, sweating, backache, *Osha-Plosa*, pain in lower abdomen, constipation, insomnia or over sleepiness etc; clarified by *Vaidya Ambikadatta Shashtri*.

According to modern science, Menopause means permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity.

It is unavoidable condition in her life. Psycho-physical changes during this period are assumed due to deficient oestrogen. There is a significant fall in the level of serum oestradiol from 50-300 pg/ml before menopause to 10-20 pg/ml after menopause

Clinical signs and symptoms are as follows:¹⁰

atrophic genitals and breast, toneless skin sparse hair, dental caries, dry vagina, and insomnia, joint pain, backache palpitation, mood swings, excess sweating, weight gain, etc.

Causes of Insomnia in The Menopausal Age Group:

1. **Sleep-Disordered Breathing:** Sleep problems are often accompanied by depression and anxiety. Snoring has also been found to be more common and severe in post-menopausal women. Snoring, along with pauses or gasps in breathing are signs of a more serious sleep disorder, obstructive sleep apnoea
2. **Vasomotor Changes:** Changing and decreasing levels of oestrogen cause hot flashes, which are unexpected feelings of heat all over the body accompanied by sweating. They usually begin around the face and spread to the chest affecting 75-85% of women around menopause. Prior to the hot flash, body temperature rises

accompanied by an awakening. Hot flashes last on average three minutes leading to less sleep efficiency. Most women experience these for one year, but about 25% have hot flashes for five years. While total sleep time may not suffer, sleep quality does. Hot flashes may interrupt sleep and frequent awakenings cause next-day fatigue.

3. **Pain and Discomfort:** Awakening during the night is more common in pains in joints, back etc. pain aids to failure of getting asleep. it also hampers the quality of sleep.
4. **Decreased Sexual Activity:** Unlike other forms of activity, sexual intercourse usually promotes falling asleep; atrophied genitals and loss of libido which results in insomnia. mid life tragic is also important factor over here, e.g. death of husband.
5. **Irritability:** psychomotor change due to lack of estrogen, which leads to improper status of mind. If can't relax then it is impossible to fall asleep.
6. **Urinary Symptoms:** The urinary symptoms are urinary urgency, dysuria and recurrent urinary infection, stress incontinence & micturition urge these symptoms may hamper quality as well as quantity of sleep

Effects of Insomnia:

- i. Sleepiness during the day
- ii. General tiredness
- iii. Irritability
- iv. Experience more errors or accidents
- v. Experience an increase in headache frequency
- vi. Experience gastrointestinal issues, such as an upset stomach
- vii. Problems with concentration or memory (consolidation of memory)
- viii. The lack of sleep can have a negative impact on energy, mood, concentration, and overall health.

Review of Importance of *Prakruti Parikshan*:

- It is given in *Charak samhita, Chakradatta*

commented that examination of *Prakruti* is an essential practise in Ayurveda. *Prakruti* is nothing but the physical and mental characteristics of a body due to *Dosha* predominance. By the *Prakruti* detection; *Bala* (power), *Satva*, *Aharashakti*. *Sadaturatwa*, *Sahishnutwa*, *Nature*, etc can be specifically judged.¹¹

- Sleep of person also depends upon the *Dosha* predominance (*Prakruti*) in the body, in person of *Vata* predominant *Prakruti*, there is light and little amount sleep. While those persons of *Kaphapradhan* *Prakruti* sleep is deep and of longer duration.¹²
- By knowing the *Prakruti* of a woman, judgement of the grades of menopausal Insomnia is done in this study.

MATERIAL AND METHODS:

Material:

Literary Study Material:

Ayurvedic Samhitas, Textbooks of Gynaecology, Physiology books, internet sources.

Observational Study Material

1. Female Volunteer: sample size =90
2. *Prakruti* detection chart
3. Case paper format

Methods:

1. *Prakruti Parikshana* of volunteers is done by the chart.
2. Clinical diagnosis of insomnia in the volunteer are recorded in the case paper with their grades.
3. Diagnosis of severity of Insomnia: (Check Table No. 1 below)
4. Observed data is collected & arranged *Prakruti* wise and symptom of Insomnia with its grade. Kruskal Wallis test with post test is used for the statistical analysis

Table No. 1: Diagnosis of severity of Insomnia:

Grades of Insomnia (Clinical Sign & Symptom)			
Absent 0 grade	Mild 1 st grade	Moderate 2 nd grade	Severe 3 rd grade
No insomnia	Sleeplessness for once in week can't sleep for 2-3 hrs	Continuously Insomnia for 3 days/ week, can't sleep for 2-3 hrs	Continuously Hampered health due to insomnia, trouble to get sleep

Study Design:

- Study type: observational Study.
- Selection criteria for volunteers.

♦ **Inclusion Criteria:**

1. Age: women having age between 45-55 years .
2. Marital state: married / unmarried women.
3. Healthy women with respect to pulse, BP and temperature etc vital parameters.

♦ **Exclusion Criteria:**

1. Females excluded from the study are as follows:
2. Women with age less than 45 years
3. Women having undergone surgery like Hysterectomy, Pan hysterectomy, oophorectomy & radiotherapy
4. Women having malignancy
5. Women receiving drugs like antidepressant,

H.R.T etc

6. Females having any psychological illness.

♦ Volunteers with detected *Prakruti* were categorised in three different groups of *Doshapradhan Prakruti*.

♦ Clinical signs & symptoms regarding sleep in the volunteer are recorded in the case paper with their grades.

♦ Observed data is collected & arranged *Prakruti* wise and symptom of Insomnia with its grade.

♦ Kruskal Wallis test with post- test is used for the statistical analysis

OBSERVATIONS AND RESULTS:

Frequency distribution incidence of menopausal Insomnia in the volunteers was found like this;

Table No. 2: Frequency of distribution of females with insomnia

Clinical sign/symptom	Total no. of volunteers	Females with insomnia	Percent
Insomnia	90	62	68.88%

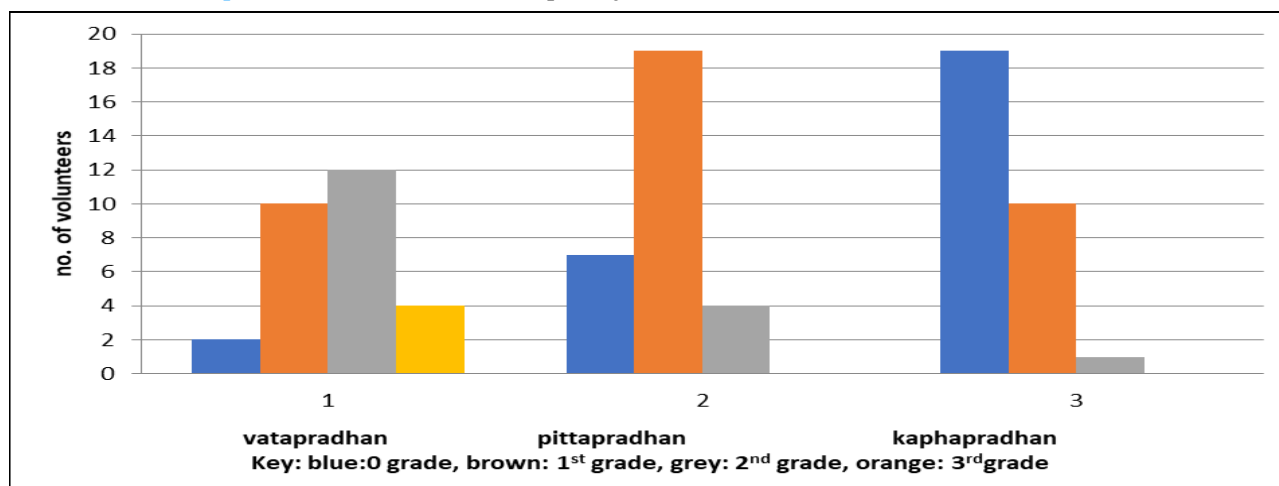
Table No. 3: Prakrutiwise Frequency of distribution of females with insomnia

Grade	<i>Vatapradhan</i> females		<i>Pittapradhan</i> females		<i>Kaphapradhan</i> females	
0	2	6.66%	07	23.1%	19	62.7%
1	12	39.6%	19	19.62%	10	33%
2	12	39.6%	04	13.2%	01	3.3%
3	04	13.2%	00	00%	00	00%

Interpretation:

Vatapradhan Prakruti showed this symptom with grade 1, 2 in 80% females. grade 3 in 13% female. *Pittapradhan Prakruti* showed this symptom mostly

i.e. about 63% of 1 grade; which was associated with hot flushes; and low backache. *Kaphapradhan Prakruti* showed this symptom in only 11% females not exceeded than grade 1.

Graph No. 1: Prakrutiwise Frequency of distribution of females with insomnia

DISCUSSION:

1. The present study is selected to observe extent of clinical signs and symptoms of *Rajonivrutti* in females of *Doshapradhan Prakruti*.
2. Any physiological or pathogenic change occurring in the body, its prognosis, is determined by *Prakruti* of that individual. Thus menopause, an unavoidable condition in female's life also affected by the *Prakruti* of that female.
3. *Rajonivrutti* (menopause) shows signs and symptoms like insomnia, joint pain, low backache, loss of libido, sweating, loss of skin tone, atrophic genitals, palpitation, hot flushes, mood swings, irritability,
4. Insomnia- is the symptom found in most of females of three *Prakruti* but majority of

Vatapradhan female showed its second and third grades. In the females of *Pittapradhan Prakruti* insomnia was associated with hot flushes during the night. *Kaphapradhan* females showed this symptom in very little extent.

5. Three groups of *Prakruti* were compared by their mean, standard deviation, median, sum of ranks mean of ranks, thus by knowing p value significance was judged as variation among columns is significantly greater than expected by chance. As the data did not followed normal distribution non parametric test for the analysis is used. Kruskal wallis test with post-test used. As the value of p in all the subjective parameters (described in observation and result) is <0.0001, hence it is proved that *Rajonivrutti* is influenced by *Prakruti*.

Table No. 4: Statistical significance of females with insomnia

Insomnia	kw value	P value	Significance
	32.269	<0.0001	Yes

CONCLUSION:

Three groups of *Doshaj Prakruti* had different clinical picture of *Rajonivrutti*.

1. The volunteers of *Kaphaj Prakruti* showed Insomnia lesser in presence and lesser in extent
2. The volunteers of *Pittapradhan Prakruti* showed Insomnia greater extent due to sweating, hot flushes, irritability and frequent micturition
3. The volunteers of *Vatapradhan Prakruti* showed greater extent insomnia (Frequency and Severity)
4. Thus, *Prakruti* decides not only occurrence of the clinical signs and symptoms of *Rajonivrutti*, but also their extent.

REFERENCES:

- [1] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. Sutrasthana Adhyay 11/35 -Page No. 238.
- [2] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. Sutrasthana Adhyay 21/59-Page No.406

- [3] Internet sources: www.healthline.com / health / menopause / menopause and insomnia symptoms article name: "can menopause cause insomnia?"
- [4] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. viman sthana Adhyay 8/95 -Page No. 758.
- [5] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. Sutrasthana Adhyay 07/04,23 -Page No.163,171.
- [6] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. Sutrasthana Adhyay 21/36 -Page No 406.
- [7] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. Sutrasthana Adhyay 21/50 -Page No. 409.
- [8] Prof. A. K. Jain, Textbook of Physiology, Avichal Publishing Company reprint edition 2014 vol. II chapter XI page. No.1018.
- [9] Kaviraj Dr. Ambikadatta Shashtri Edited, Shushrut Samhita Sharir Sthan3/11 Chukhamba Sanskrit Samsthan Varanasi, Reprint Edition,2008.

[10] Shaw's text book of Gynaecology - V.G. Padubidri Shirish N. Daftary, 13th edition, a division of Elsevire India Pvt. Ltd.

[11] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. viman sthana Adhyay 6/16 -Page No. 707.

[12] Dr. Brahmanand Tripathi, Charak-Samhita of Agniwasha with Charaka-Chandrika Hindi Commentary, Chaukhmbha Surbharati Prakashan Varanasi, 2009 Edition Vol. 1. viman sthana Adhyay 8/98 -Page No. 761.

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