

COMPARATIVE STUDY BETWEEN NIDRABHRANSHA AND DWIDOSHAJ PRAKRITIS WSR IN-SOMNIA

S. V. Potdar¹, Ravikiran. A. Dhengale²

¹Associate Professor, P.G Student²

Dept of Kriya Sharir, Yashwant ayurvedic college PGTRC, Kodoli, Kolhapur, Maharashtra, India

Email: ravikirandhengale9@gmail.com

ABSTRACT

Nidra is an important phenomenon which occurs regularly in human life as a part of normal physiology. Patterns of sleep, specific for the type of *prakruti* of an individual as described in *Ayurveda* are not only a benchmark of scientific wisdom of ancient forefathers of *Ayurveda*. Due to hectic modern style natural pattern of sleep is getting disturbed. So, problems like irritability, depression are getting worst & Diseases like *Nidrabhransha* are increasing. The modern medical science is still not having a definite treatment for this disease. Although hypnotics, sedative, tranquilizer, Psychotropic are there but they have got their own limitations because of its hazardous adverse effects and their role in curing the disease is very limited rather the patient will be addicted for the particular drug. Therefore, such agents cannot be safe to given for long period. Hence the necessity of the safe drug or lifestyle intervention from *Ayurveda* is very important to find out better cost effective and safe therapeutic measures.

Keywords: *Prakruti, Nidrabhransha, Sleep, Nidra* etc.

INTRODUCTION

Nidra is an important phenomenon which occurs regularly in human life as a part of normal physiology, to provide rest and relaxation to the body, mind and senses which get tired and exhausted due to the wear and tear process occurring in due course of daily schedules. Hence, the *nidra* is considered as one of the essential components of life. In all *Samhitas Ahara, Nidra* and *Brahmacharya* are given prime importance under the name of *Tryopastambha*-the sub pillars of life. The strength, complexion and compactness of the individual body depend on these three factors^[1]

Aahar, Nidra and *Brahmacharya* are three important pillars described by *Acharya Charka* under '*Trayopstambha*', which plays very important role in maintaining prevention and promotion of health. Due to hectic modern lifestyle natural pattern of sleep is getting disturbed. So, problems like irritability, depression are getting worst & diseases like insomnia are increasing. Hence to stay away from such problems, *nidra* is most important factor. to defeat this kind of disease various *upakramas* are mentioned in Ayurved like *Dincharya, Nichacharya*.^[2]

Acharya charak says that happiness or misery, nourishment or malnourishment, strength or weakness, potency or impotency and sexual urge, life or death, orientation of surrounding, alertness or disorientation and sluggish senses depends on sleep, therefore one should take proper sleep at proper time^[3].

Ayurveda gives first preference for prevention of disease than cure of disease. Ayurveda has guided a human being to lead healthy & happy life. Acharya Kashyapa, getting good sleep at a proper time is one of the characteristics of a health human being. Acharya-kashyap has also highlighted the importance of *nidra* as; the timely implemented sleep is an indicator of good health as it brings the normalcy in body tissues and relaxes the person.^[4]

According to recent advances sleep as a time of rest and recovery from the stress of everyday life, research is revealing that sleep is dynamic activity, during which many processes vital to health and well-being takes place. New evidence shows that sleep is essential to help in maintain mood, memory, and cognitive performance. it also plays a vital role in the normal function of the endocrine and immune systems. In facts, studies show a growing link between sleep duration and a variety of serious health problems, including obesity, diabetes, hypertension and depression.^[5]

Insomnia is a sleep disorder, people with insomnia have trouble sleeping difficulty falling Asleep, or staying asleep as long as desired. Insomnia has a great impact on social, occupational and other functioning areas of the individual. Some of the work regarding sleep disturbance has been carried out in Ayurvedic and modern research fields. Even then, the lacuna remains in the field of concept, diagnostic approaches and management of sleep disorder. The modern medical science is still not having a definite treatment for this disease. Although hypnotics, sedative, tranquilizers, psychotropic are there but they have got their own limitations because of its hazardous adverse effects and their role in curing the disease is very limited rather the patient will be addicted for the particular drug. Such modern anxiolytic drugs have limited application due to hangover effects addiction and producing variety of neuro endocrine, hepatic side effects. Therefore, such agents

cannot be safe to given for a long period. Hence the necessity of the safe drug or lifestyle interventions from. Ayurveda is very important to find out better cost effective and safe therapeutic measures. Therefore, the present study has been undertaken. About a 1/3rd of the world population is suffering from various sleep disorders during their lifetime, insomnia is chief among them. Now it is increasing in younger age group and middle age group, because of change in lifestyle. Affects the inadequate sleep not only affects the individuals himself but also affects the society in turn increasingly in psychic diseases.^[6]

Aim:-To evaluate the relation between *Nidrabhransha* and *Dwidoshajprakritis* w.s.r Insomnia.

Objectives:-

- 1) To evaluate different *Dwidoshajprakritis* of individuals.
- 2) To study in detail about *nidrabhransha* with help of standard subjective criteria individuals of different *prakritis* and evaluate relation between *Nidrabhransha* and *Dwidoshajprakritis*.

Materials and Method: -

A) Material:-

1. Study Material: - Refer of all modern and Ayurvedic books, article journals related to *Nidrabhransha* and *prakruti*.
2. patients: -330 was selected among them 300 patients completed the observation on OPD basis i.e. 100 patients of each *Dwidoshajprakruti* selected randomly.
3. weighing machine, BP apparatus, Thermometer, Stethoscope.

Inclusion Criteria: -

- 1) Patient of both sexes age group above 60 years was selected.
- 2) Patients having symptoms of *Nidrabhransha* was selected.

Exclusion Criteria: -

- 1) Patients having accidental injury who are bed ridden & hospitalized.
- 2) Patients of dementia, Alzheimer's disease and psychosis.

B) Methods:-

Conceptual study method- all the information regarding *nidra*, *prakruti*, *nidrabhransha*, sleep, somatotypes and insomnia was collected from ayurvedic and modern texts, journals, article and previous work done.

Observational study Methods: -1) Diagnostic phase:- selected all 300 patient from Kayachikitsa OPD and *prakrutiparikshan* of all individuals done and divided in to 3 groups like

1.vata pittaj group.

2.vata kaphaj group.

3.pitta kaphajgroup.

2)Assessment phase:- Ayurvedic parameter, Athens Insomnia scale (AIS), the insomnia severity index, Pittsburgh sleep diary assessment,

Study Design: A randomized controlled clinical study was carried out.

Statistical Analysis: Various parameters are summarized using mean, mode and S.D findings are also supplemented with graphical representation.

To test the hypothesis that, the various indices for insomnia differs according to Prakruti, 'Kruskal-Wallis test' is used with 'Mann Whitney U test' as post hoc test.

Level of significance is kept at 5%

Level Data was collected, tabulated, analyzed and percentage wise results were given.

Total effect of therapy: Total effect of therapy was assessed according to following criteria.

1. Distribution of score of Nidrabhransha (based on Ayurvedic parameters) according to Prakruti.

Table 1: Statistical Analysis of Ayurvedic parameters.

subgroup	median score	mean score	S.D of score	d.f	kruskal-wallis statistic	p-value
vata-pitta group	20	19.45	3.6			
vata-kapha group	14	14.53	2.8	2	167.36	<0.001
pitta-kapha group	6	8.02	4.72			

Distribution of score of *nidrabhransha* for *vata-pitta* group, *vatakapha* group and *pitta-kapha* group groups were significantly different (Kruskal-Wallis statistic =167.36, p-value<0.001) at 5%level of significance.

Post-hoc analysis using Dunn test with Bonferroni correction revealed that, score of *Nidrabhransha* for *vata-*

pitta group was significantly higher than that of *vata-kapha* group (p-value < 0.001) as well as *pitta –kapha* group (p-value<0.001).also, the score of *Nidrabhransha* for *vata-kaphaprakruti* is significantly higher (p-value<0.001)than that for *pitta-kaphaprakruti*.

Table 2: Statistical Analysis of Athen’s Insomnia Score^[7].

subgroups	median score	mean score	S.D of score	d.f	kruskal-wallis statistic	p-value
vata-pitta groups	21	20.14	3.15			
vata-kapha group	16	16.12	2.11	2	185.65	<0.001
pitta-kapha	9	10.09	3.89			

Distribution of Athen’s Insomnia score for *vata-pitta* group, *vatakapha* group and *pitta-kapha* groups were significantly different (Kruskal-Wallis statistic =185.65, p-value<0.001) at 5%level of significance.

Post-hoc analysis using Dunn test with Bonferroni correction revealed that Athen’s Insomnia, score for *vata-*

pitta group was significantly higher than that of *vata-kapha* group (p-value < 0.001) as well as *pitta –kapha* group (p-value<0.001).also, the Athen’s Insomnia score for *vata-kaphaprakruti* is significantly higher (p-value<0.001)than that for *pitta-kaphaprakruti*.

3. Distribution of insomnia severity Index according to *prakriti*⁸¹:-

Table 3: Statistical Analysis of Insomnia Severity Index

subgroup	median score	mean score	S.D of score	d.f	kruskal-wallis statistic	p-value
vata-pitta group	24	23.58	3.52			
vata-kapha group	19	18.9	2.86	2	170.23	<0.001
pitta-kapha group	11	13	4.25			

Distribution of Insomnia severity Index for *vata-pitta* group, *vatakapha* group and *pitta-kapha* groups were significantly different (Kruskal-Wallis statistic =170.23, p-value<0.001) at 5%level of significance. Post-hoc analysis using Dunn test with Bonferroni correction revealed that Insomnia severity Index for *vata-*

pitta group was significantly higher than that of *vata-kapha* group (p-value < 0.001) as well as *pitta –kapha* group (p-value<0.001).also, the Insomnia severity Index for *vata-kaphaprakruti* is significantly higher (p-value<0.001)than that for *pitta-kaphaprakruti*.

4. Distribution of Pittsburgh sleep diary assessment score according to *prakriti*⁹¹

Table 4: Statistical Analysis of Pittsburgh Sleep Diary Assessment.

subgroup	median score	mean score	S.D of score	d.f	Kruskal-Wallis statistic	p-value
vata-pitta group	65	62.73	9.93			
vata-kapha group	47	48.05	8.36	2	160.78	<0.001
pitta-kapha group	25	31.04	13.57			

Distribution of Pittsburgh sleep Diary assessment score for *vata-pitta* group, *vatakapha* group and *pitta-kapha* groups were significantly different (Kruskal-Wallis statistic =160.78, p-value<0.001) at 5%level of significance. Post-hoc analysis using Dunn test with Bonferroni correction revealed that Pittsburgh sleep diary assessment

score for *vata-pitta* group was significantly higher than that of *vata-kapha* group (p-value < 0.001) as well as *pitta –kapha* group (p-value<0.001).also, the Pittsburgh sleep diary assessment score for *vata-kaphaprakruti* is significantly higher (p-value<0.001)than that for *pitta-kaphaprakruti*.

Table 5: Statistical Analysis Daytime Consequences Score.

subgroup	median score	mean score	S.D of score	d.f	Kruskal-Wallis Statistic	p-value
vata-pitta group	13	12.62	2.21			
vata-kapha group	9	9.39	1.48	2	181.57	<0.001
pitta-kapha group	6	6.62	2.04			

Distribution of daytime Consequences score of Insomnia for *vata-pitta* group, *vatakapha* group and *pitta-kapha* groups were significantly different (Kruskal-Wallis statistic =181.57, p-value<0.001) at 5%level of significance. Post-hoc analysis using Dunn test with Bonferroni correction revealed that, Daytime Consequences score of

Insomnia for *vata-pitta* group was significantly higher than that of *vata-kapha* group (p-value < 0.001) as well as *pitta –kapha* group (p-value<0.001).also, the daytime consequences score of Insomnia for *vata-kaphaprakruti* is significantly higher (p-value<0.001)than that for *pitta-kaphaprakruti*.

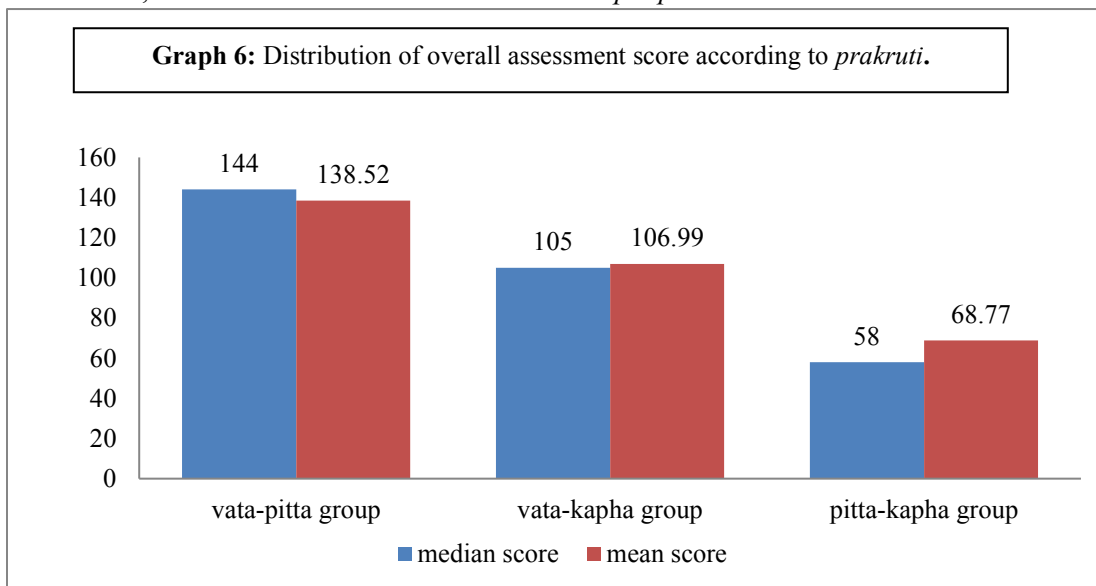
Table 6: Statistical Analysis Overall Assessment.

subgroup	median score	mean score	S.D of score	d.f	Kruskal-Wallis statistic	p-value
vata-pitta group	144	138.52	20.87			
vata-kapha group	105	106.99	15.45	2	163.36	<0.001
pitta-kapha group	58	68.77	27.57			

Distribution of Overall Assessment score for *vata-pitta* group, *vatakapha* group and *pitta-kapha* groups were significantly different (Kruskal-Wallis statistic =163.36, p-value<0.001) at 5%level of significance.

Post-hoc analysis using Dunn test with Bonferroni correction revealed that, Overall Assessment score for

vata-pitta group was significantly higher than that of *vata-kapha* group (p-value < 0.001) as well as *pitta – kapha* group (p-value<0.001). Also, the Overall Assessment score for *vata-kaphaprakruti* is significantly higher (p-value<0.001) than that for *pitta-kaphaprakruti*.



Result:- Overall assessment score for *vata-pitta* group, *vata-kapha* group and *pitta kapha* groups was significantly different (Kruskal-Wallis statistic =163.36, p-value <0.001) at 5% level of significance. Overall assessment score for *vata –pitta* group was significantly higher than that of *vata –kapha* group (p-value<0.001) as well as *pitta-kapha* groups (p-value <0.001). Also, the overall assessment score for *vata-kaphaprakruti* is significantly higher (p-value<0.001) than that for *pitta-kaphaprakruti*. It means *vata* and *pitta doshas* plays an important role in *Nidrabhransha*.

DISCUSSION

It comprises the Details of the collected data and comparison with those mentioned in the ancient literature & modern texts. Ayurveda literatures opine that

*vataDosh*a causes loss of sleep by virtue of its Anti-*kapha* properties and the *kaphaprakruti* individual have more sleep-in comparison to other *Doshaprakruti*. The variation may be because of individual *Guna* or *bhouti-kasanghatana* of the *dosha*. Hence an attempt has been made in this study to analysis the same. *Vata* dominant with *vayumahabhuta* & *rajiguna* because of its *chalatwa* (movement) and *rukshadigunas* result in interrupted sleep and hence the *vata pitta prakruti* individual will have less and broken sleep.

Now a days in developing countries like India, man has to complete for good economic status in order to get such desired lifestyle one has to face continuous busy and stressful life. Changing of lifestyle of modern human being has created several disharmonies in his biological system. Due to this overburdened nervous

system of highly civilized human beings, problems in area of sleep have occupied a significant volume of sphere of sufferings above & beneath the surface of consideration. Insomnia is by far the most common sleep disorder that has significant long-term health consequences. One out of every twenty Indians suffers from sleep disorder. 15% to 25% of the population suffering from insomnia in India not far from the 30% that suffers from insomnia in the west.

Number of persons aged 50 years and above affected by sleep disorders in India are increasing day by day. Factors that make old age persons more vulnerable for sleep problems are senility in modern terms & increased *vata dosha* according to Ayurveda. It will be more useful and relevant to explore sleep & problems associated with it in old age persons.

The quantitative & qualitative difference in sleep patterns in particular *Doshaj* constitutions which were observed some thousands of years ago give an indication of astute observation. But at the same time, it obviously demands for its verification by modern methods. The descriptions about preponderance of specific pattern of sleep available in texts of Ayurveda refer to constitutions that are completely composed of single *Dosha*. In that case, patterns of sleep in constitutions formed out of dual *Doshaj* which occur most frequently today, need to be investigated.

CONCLUSION

After analyzing all the data and the observation we concluded that *Nidrabhransha* occurs significantly higher in *vata-pittajprakruti* individuals as compared to *vata-kaphaj prakruti* as well as *pitta kaphajprakruti*. *Nidrabhransha* occurs significantly higher in *vata kaphaja prakruti* as compared to *pitta kaphaja prakruti* individuals. *vata* and *pitta Dosha* plays an important role in *nidrabhransha*. *Nidrabhransha* is observed more in male than female. Maximum incidence was observed in business and houseworkers than other occupations. *Nidrabhransha* is observed more in middle class persons than other socio-economic individuals. Patients having *visham & tikshan Agni* are largely prone for the development of this disease. *nidrabhransha* is observed more in *krur koshta* person.

REFERENCES

1. A Textbook Of Kriya Sharir By Prof. Dr. Subhash Ranade, Prof. Dr. R. R. Deshpande, Prof. Dr. Swati Chobhe, Chaukhamba Sanskritprasthnan, Delhi.
2. Acharya Agnivesa, Charaksamhita, Sutrasthan, Dr. Brahmennad Tripathi, Varanasi, Chaukhambasoorbharti Prakashan, Edition 2006, Sutrasthan, Chapter 11, Page 238.
3. Susrutasmhita, Nibhandasamgrahatika Of Dalhana And Nyaya Chandrika Tika Of Gayadasa, Edited By Kaviraj Ambikaduttashastri, Chaukhambasurbharti Prakashan Varanasi, Edition 2005, Sutrasthan, Chapter 21, Page 136.
4. Acharya Kashyapa, Kashpasamhita, Khilasthan, English Translation By P.V Tiwari, Varanasi, Chaukhambha Vishvabharti, 2008.
5. Tortora G.J; Principles Of Anatomy And Physiology, 8th Edition, 1996, Harsper Collins College Publishers, New York.
6. Sleep Disorders Diagnosis And Treatment, J. Steven-poceta And Merril M. Milter, Published By Panther, Bangalore.
7. Athens Insomnia Scale-Validation Of An Instrument Based On ICD-10 Criteria, Soldatos CR¹, Dikeos DG, Paparrigopoulos T J, J Psychosom.
8. Bastien CH, Vallieres A, Morin CM. Validation Of The Insomnia Severity Index As An Outcome Measure For Insomnia Research Sleep (<https://www.ncbi.nlm.nih.gov/pmc/article/PMC3079939/#B25>).
9. Backhaus J, Junghans K, Broocks A, Riemann D, Hohagen F. Test-Retest Reliability And Validity Of The Pittsburgh Sleep Quality Index In Primary Insomnia.

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: S. V. Potdar1, Ravikiran. A. Dhengale: Comparative Study Between Nidrabhransha And Dwidoshaj Prakritis Wsr In-Somnia. International Ayurvedic Medical Journal {online} 2020 {cited April, 2020} Available from: http://www.iamj.in/posts/images/upload/3207_3212.pdf