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STUDY TO EVALUATE THE EFFECTIVENESS OF HOMEOPATHIC MEDICINE IN SLEEP DISORDERS IN GERIATRIC AGE GROUP

Dr. Atul Kumar Singh¹, Dr. Mukesh Ch. Agarwal², Dr. Ruchi Singh³, Dr. Astha Mathur^{4*},
Sajal Sharma⁵

1. Principal, Dr. MPK Homoeopathic Medical College, Hospital and Research center, Jaipur, Rajasthan, India
2. Professor, Dr. MPK Homoeopathic Medical College, Hospital and Research center, Jaipur, Rajasthan, India
3. Associate Professor, Dr. MPK Homoeopathic Medical College, Hospital and Research center, Jaipur, Rajasthan, India
4. Assistant Professor, Dr. MPK Homoeopathic Medical College, Hospital and Research center, Jaipur, Rajasthan, India
5. BHMS IV year Student, Dr. MPK Homoeopathic Medical College, Hospital and Research center, Jaipur, Rajasthan, India

Corresponding Author- "Astha Mathur" astha.mathur872@gmail.com ; Contact No. 9460002265. Assistant Professore, Department of Homoeopathic Pharmacy, Dr. MPK Homoeopathic Medical College, Hospital and Research center, Jaipur, Rajasthan, India

ABSTRACT-

Insomnia is a sleep disorder that is characterized by difficulty falling and/or staying asleep, waking up often during the night and having trouble going back to sleep, waking up too early in the morning, and feeling tired upon waking although patients have suitable conditions and enough time for sleep. It is more common in elderly people and men.

A Prospective, observational study was done in O.P.D. of Dr. Girendra Pal Homoeopathic Hospital, Saipura, Sanganer, Jaipur. The objective of the study was to evaluate the effectiveness of homeopathic medicines in treatment of sleep disorders in geriatric age groups on the basis of changes in the global score on Pittsburgh Sleep Quality Index (PSQI) before and after treatment.

30 patients aged 60 years and above of both sexes were included suffering from insomnia were treated with homoeopathic medicines. Paired sample t- test shows difference of mean= 3.66, $t(29) = 7.67$, $P = 0.005$

indicating improvement in geriatric patients suffering from sleep disorders treated by homeopathic medicine.

Homeopathic medicines shows marked improvement in cases of sleep disorders in geriatric age group.

Keywords- Effectiveness, Geriatric Age Group, Homeopathic, Insomnia, Prospective, Observational, Sleep Disorders.

INTRODUCTION

Insomnia is characterized by difficulty falling asleep, difficulty staying asleep, or poor quality sleep, leading to impairment of next-day functioning, including psychological distress.¹

Sleep disorder is common in older adults because aging is associated with an increasing prevalence of multimorbidity, polypharmacy, psychosocial factors affecting sleep, and certain primary sleep disorders. It is also associated with morbidity and mortality.²

Sleep is an important component for health and wellness across the lifespan. The number of people in the United States who are 65 years or older is steadily increasing and is expected to double over the next 25 years to about 72 million. By 2030, roughly 1 in 5 people in this country will be over the age of 65.²

There are changes to sleep architecture over the lifespan that are not, in themselves, pathologic, but can be viewed as making older adults more vulnerable to sleep disturbances.²

Non-pathological changes in sleep occur across the normal aging process. Older adults experience shorter total sleep time (TST) than younger adults, with total sleep time decreasing until about age 60, then stabilizing through the later decades of life. This may be due to a combination of physiological changes in sleep, changes in sleep related habits, and increased rates of sleep disorders.³

Among older adults means that sleep disorders might arise from multiple different domains. Thus, sleep disturbance in this age group should be considered a multifactorial geriatric health condition (previously referred to as a geriatric syndrome), requiring consideration of multiple risk factors and a comprehensive treatment approach.²

Insomnia may result in decline in cognition and physical performance, falls, physical dependence, and respiratory depression.⁴

Homeopathic treatment focuses on the patient as a person, as well as his pathological condition. Homoeopathy takes a holistic medicinal approach where the whole person is treated including mind and body.

This study was conducted to evaluate the effectiveness of homeopathic medicine in sleep disorders in geriatric age group.

AIM:

To evaluate the effectiveness of homeopathic medicine in sleep disorders in geriatric age group.

OBJECTIVE:

To study the effectiveness of homeopathic medicine in treatment of sleep disorders in geriatric age groups by The Pittsburgh Sleep Quality Index (PSQI) pre and post score.

MATERIAL AND METHODS:

The study was conducted at O.P.D of Dr. Girendra Pal Homoeopathic Hospital and Research Centre, Saipura, Sanganer, Jaipur (Rajasthan) for a duration of six months. The study was approved by the Institutional Ethical committee of Homoeopathy University, Jaipur. 30 patients were enrolled after screening. A written informed consent was obtained from each participant.

Screening of patients was done according to predefined inclusion & exclusion Criteria:

a. Inclusion criteria:

- All patients giving consent to participate in study.
- Age 60 or above.
- Both genders
- Cases of geriatric age group, suffering from insomnia
- Patients of insomnia taking treatment from another system of medicine, having no relief and seeking homeopathic treatment.

b. Exclusion criteria:

- The cases without proper follow up were excluded from the study.
- Cases with any other severe systemic disorder with advanced pathological conditions.

Type of study & Study design: Prospective interventional study

Data collection: Cases were recorded in Case taking Performa especially designed for the study. The Pittsburgh Sleep Quality Index (PSQI)- The PSQI global score of 5 or more indicates poor sleep quality; the higher the score, the worse the quality. Master chart was maintained for data recording and analysis.

Intervention: Homoeopathic Medicine was selected per Homoeopathic principles given in th edition of Organon of Medicine. Dosage, potency & Repetition were as per Homoeopathic principles considering the susceptibility of the patient. Change of medicine and/or potency was done according to Homoeopathic principles after observing changes after administration of medicine. The medicines were procured from the pharmaceutical company having the Good Manufacturing Practices certificate.

Data analysis –Data analysis was done by using SPSS and Microsoft excel. Paired t- test - For pre test and post-test in individual group.

OBSERVATIONS AND RESULT:

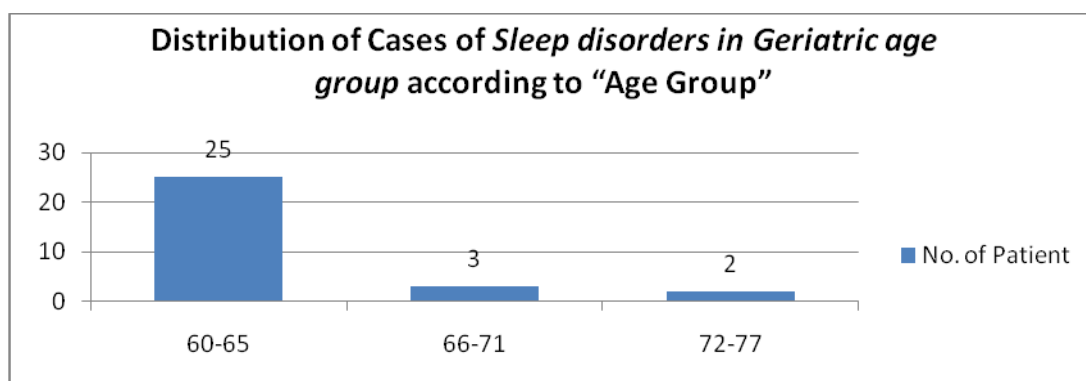


Figure 1: Graphical representation of distribution of 30 cases of Sleep disorders in Geriatric age group according to Age Group

Among the 30 cases of *Sleep disorders in Geriatric age group* cases 25 (83 %) cases were from age group of 60-65 years; 3 cases (10%) were from age groups of 66-71 years and 2 (7%) cases were from age group of 72-77 years. (Figure 1).

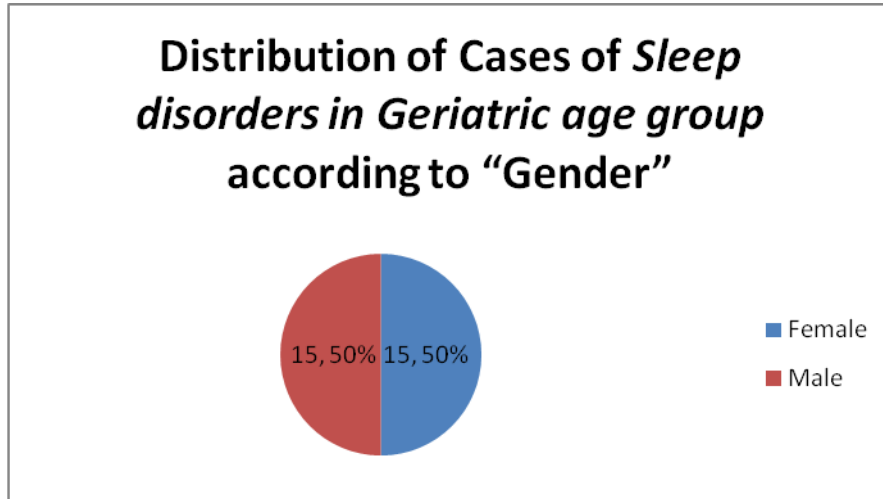


Figure 2: Graphical representation of distribution of 30 cases of *Sleep disorders in Geriatric age group* according to Sex.

Among the 30 cases of *Sleep disorders in Geriatric age group* 15 (50%) cases were female; 15 (50%) cases were male. (Figure 2)

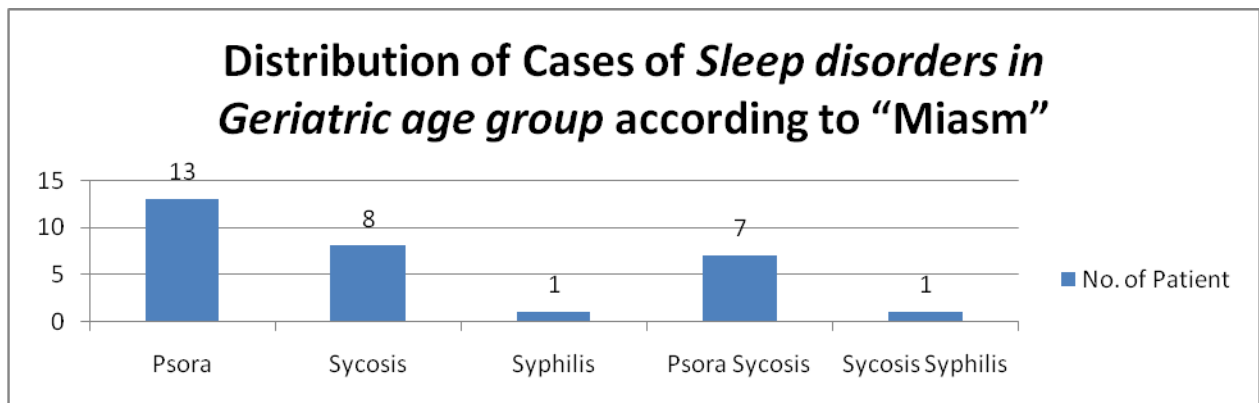


Figure 3: Graphical representation of distribution of 30 cases *Sleep disorders in Geriatric age group* according to Miasm.

Miasmatic analysis of the cases showed that in 13 (43.33%) cases predominant miasm was Psora; 8 (26.66%) cases had Sycosis miasm; 7(23.33%) cases had Psora-sycosis miasm; 1(3.34%) case each had Syphilis and Syco-syphilis miasm.

Table 1: Distribution of 30 cases of *Sleep disorders in Geriatric age group* according to 'Indicated Homoeopathic Medicine'

S. NO.	NAME OF MEDICINE	NO. OF PATIENT
1	<i>NATRUM MURIATICUM</i>	8
2	<i>LACHESIS</i>	8
3	<i>PULSAILLA</i>	5
4	<i>ARSENICUM ALBUM</i>	4
5	<i>SULPHUR</i>	4
6	<i>CALCAREA PHOSPHORICA</i>	1

Among the 30cases of *Sleep disorders in Geriatric age group* treated with homoeopathic medicine, the indicated on the basis of totality of symptoms was *Natrum muriaticum and Lachesis* in 8 (26.66%%) cases each; *Pulsatilla nigricans* in 5 (16.67%) cases; *Arsenic album and Sulphur* in 4 (30.33%) cases each; and *Calcarea phosphoricum* in 1 (3.34%) cases.

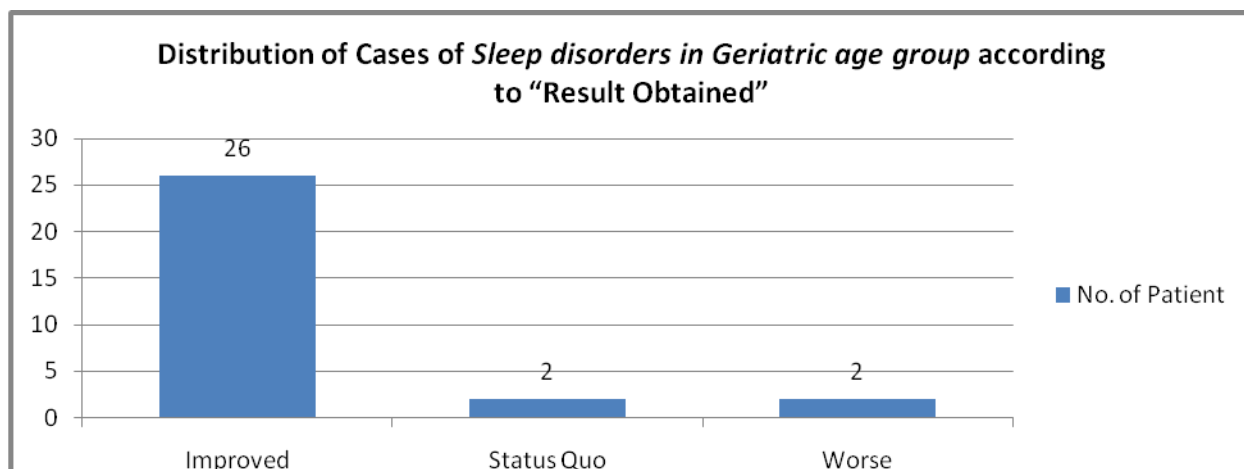


Figure 4: Graphical representation of distribution of 30 cases of Sleep disorders in Geriatric age group according to Result Obtained.

The pre and post treatment PSQI score showed that among the 30 cases 26 (80%) cases were improved; 2 (6.67%) cases each were worse and Status quo.

In order to accomplish the Objective, Paired t- test was used on the pre and post treatment PSQI scores of the group. The analysis has been done on IBM SPSS 20.0.

In this study sample size 30 was taken, degree of freedom (30- 1) is 29 and level of significance is $\alpha = 0.05$. Pre treatment PSQI (M= 10.33, S.D. = 1,538) was reduced post treatment (M = 6.66, S.D. = 2.33) indicating that sleep disorders in Geriatric age treatment group were improved by homoeopathic medicine, difference of mean= 3.66, $t(29) = 7.67$, $P = 0.005$.

DISCUSSION

In this study 30 cases of sleep disorders in geriatric age group were taken. Maximum cases were from age groups of 60-65 years. A higher prevalence of sleep disorders in geriatric age group in >60 years of age has been consistently reported by Indian studies.³

Various studies show men to be more frequent sufferers of sleep disorders in geriatric age group.³ The baseline data of this study suggest that sleep disorders in geriatric age group present in equal ratio. figure (2).

An effort was undertaken to study the cases from miasmatic view point before prescribing. According to homoeopathic literature sleep disorders can originate from all three miasms but differ in presentation. This was evident in the miasmatic analysis of the treated cases. (figure 3)

Homoeopathic medicines are prescribed on the basis of individualized totality of symptoms after a thorough case taking and case processing. *Natrum muriaticum* and *Lachesis* were the commonest medicines prescribed in this study. In a previous study the homoeopathic medicines that were prescribed for those patients who reportedly had improvement (as measured by name outcome measure) were *Natrum muriaticum*, *Pulsatilla nigricans*, *Lycopodium clavatum*, *Phosphorus*, *Sulphur*, etc. as useful medicines for the treatment of depression⁵

80% cases were improved with homoeopathic treatment. Statistical Analysis also showed significant reduction in PSQI scores after treatment.

CONCLUSION

The small sample size and short duration of study are its prime limitations. However this study shows the potential benefits of homoeopathic treatment in cases of sleep disorders in geriatric age group.

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