



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2016; 2(9): 878-879  
www.allresearchjournal.com  
Received: 11-07-2016  
Accepted: 04-09-2016

**Dr. Chandrakanta Mishra**  
Associate Professor,  
Department of Cardiology,  
SCB Medical College, Cuttack,  
Odisha, India

**Dr. Archana Mishra**  
Associate Professor,  
Department of Physiology,  
SCB Medical College, Cuttack,  
Odisha, India

## Effect of sudarshan kriya yoga on insomnia

**Dr. Chandrakanta Mishra and Dr. Archana Mishra**

### Abstract

**Introduction:** Sleep disorder has high prevalence in geriatric age group. Chronic insomnia is best managed using non-drug strategies, Sudarshan Kriya Yoga (SKY) is a powerful rhythmic breathing technique that balances the autonomic nervous system and influences psychophysiological disorders. Due to paucity of literature, the effect of practice of Sudarshan Kriya yoga on hypertensive patient of geriatric age group was undertaken in this study.

**Material and Methods:** 155 subjects of geriatric hypertensives attending Cardiology OPD of SCB Medical College were inducted into the study by informed consent. They were taught Sudarshan Kriya and given practice sessions till 40 days over and above routine therapy. Their sleep score pre and post intervention were assessed and statistically analysed.

**Result:** There was consistent decline in sleep score in all categories. Compliance and acceptance were cent percent.

**Keywords:** Insomnia, sudarshan kriya

### 1. Introduction

Chronic insomnia is unlikely to spontaneously remit, and over time will be characterised by cycles of relapse and remission of persistent symptoms. Chronic insomnia is best managed using non-drug strategies such as cognitive behaviour therapy. (1) Both sedative-hypnotic and cognitive behavioural interventions exist for insomnia and each type of intervention have substantial levels of empirical support for their efficacy.(2)

Sudarshan Kriya Yoga (SKY) is a powerful rhythmic breathing technique that balances the autonomic nervous system and influences psychophysiological disorders. SKY includes Sudarshan kriya, Bhastrika pranayama, and Yoga nidra and is an integral part of art of living (AOL) programs. Today, its effectiveness is universally acclaimed that it reduces stress, anger, anxiety, and depression bringing one in a pleasant state.(3,4)

Insomnia is defined by the presence of an individual's report of difficulty with sleep.(5) Sleep disorder has high prevalence in geriatric age group. Importantly, the presence of comorbid medical conditions is also a significant contributor to the increased prevalence of insomnia in the elderly.(5)

Due to paucity of literature, the effect of practice of Sudarshan Kriya yoga on hypertensive patient of geriatric age group was undertaken in this study.

### Material and Method

As part of an ongoing study, with ethics committee approval from Sri Sri Institute of advanced research, and permission of authorities, this study was undertaken in the OPD of Cardiology Department. Informed consent was obtained from study subjects.

Out of 295 geriatric hypertensives attending the OPD of Cardiology department from Nov,15 to Apr,16, the diagnosed cases of sleep disorder were offered to learn and practice Sudarshan Kriya over and above the standard treatment. Their baseline parameters and sleep status (Pittsburg sleep scale) were measured. Then, they were given regular follow up practice sessions for 40 days and their sleep status (by Pittsburg sleep scale) was assessed.

### Statistical analysis

The data was analysed using descriptive statistics where the quantitative data were expressed in mean and standard deviation and the categorical data were expressed in counts and percent.

**Correspondence Author:**  
**Dr. Archana Mishra**  
Associate Professor,  
Department of Physiology,  
SCB Medical College, Cuttack,  
Odisha, India

## Result

Out of a total of 155 geriatric hypertensive insomniacs who consented to participate in the study, 85 were males and 70 were females with a mean age of 66.5 years. 79 study subjects were from urban area and the remaining 76 were from rural area. 56 were below poverty line and remaining 99 were of average socioeconomic status. (Table 1). There were no drop outs.

The sleep score was 6.48 for the study group was reduced to 4.52 after practice of Sudarshan Kriya for 40 days. The reduction was consistently observed in all sub groups (Table 2)

**Table 1:** Baseline characteristics, n=155

<b>Gender</b>	<b>Male</b>	85
	<b>Female</b>	70
Age(in years)	Mean(SD)	66.5 (2,5)
Residence	Urban	79
	Rural	76
Socioeconomic status	Below poverty line	56
	Above poverty line	99

**Table 2:** Effect of sudarshan kriya on sleep score

	Characteristic	Pre	Post
	Overall	6.48±3.84	4.52±2.94
Gender	Male	5.98±3.8	4.22±2.73
	Female	7.13±3.83	4.92±3.17
Residence	Urban	8.23±2.4	4.65±2.5
	Rural	7.34±2.1	4.32±2.1
Socioeconomic Status	Bpl	7.1±2.0	4.3±1.8
	Apl	6.7±2.3	4.4±1.9

## Discussion

The effect of non-pharmacological interventions on sleep quality is vividly documented in the scientific literature. Many investigations suggest individuals with chronic insomnia, as opposed to no or occasional insomnia, have more difficulty with intellectual, social and/or vocational functioning. Several studies report that patients with chronic insomnia have subjectively impaired cognitive performance [6-8].

Sudarshan Kriya is a yogic breathing technique founded by His Holiness Sri Sri Ravishankar, taught by Art of Living teachers. It has stringent guidelines, no side effects.

The overall reduction in sleep score is consistently observed in all sub groups.

Acceptance and compliance were cent percent.

## Conclusion

The effect on sleep score shows reduction in all categories with 40 days practice of Sudarshan Kriya.

## Limitation and future study:

1. Longer follow up period is require to establish the effect of practice.
2. No drop outs in this study as daily supervised practice sessions were done. However, weekly follow ups would assess the compliance and effect of irregularities if any.

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