

Effect of “OM Meditation” On Blood Pressure in Young Healthy Adults of B.G.Nagara

Ravi GN*, K.N Narasimha Swamy, Anand KSS

Department of Physiology, Adichunchanagiri institute of medical sciences, B.G Nagara, Nagamangala Taluk, Mandya district, Karnataka, India

Original Research Article

*Corresponding author

Ravi GN

Article History

Received: 10.07.2018

Accepted: 25.07.2018

Published: 30.07.2018

DOI:

10.21276/sjams.2018.6.7.38



Abstract: This study was planned to find out the effect of OM Meditation on blood pressure in young healthy adults of B.G.Nagara. This study was conducted to determine the effect of OM meditation on blood pressure in healthy young individuals. The present study was a case-control study consisting of 50 healthy individuals in the age group of 20-40 years. This study was conducted in the Department of Physiology; Adichunchanagiri institute of medical sciences, B.G.Nagara, Nagamangala Taluk, Mandya district, after the institutional ethical clearance and written consent from each participant blood pressure was recorded before & after practicing deep OM Meditation daily for three months. The parameters thus recorded were analyzed for statistical significance using Students ‘t’ test and $p < 0.05$ was considered the level of significance. The results of this study indicate that practicing OM meditation daily as indicated in the method, decreases the blood pressure significantly even in the absence of any other form of physical exercise.

Keywords: SBP- Systolic blood pressure, DBP – Diastolic blood pressure, AFT- Autonomic function test.

INTRODUCTION

‘OM’ is the name or symbol of God (Ishwara, Brahman). Either chanting or thinking about ‘OM’ is anecdotally reported to cause a quite mental state, and improve the all round performance of the brain and body. Medical science mainly deals with the outer world which includes the body, where as meditation deals with the inner world or mind [1].

Practicing meditation mainly change body function through autonomic nervous system, as ANS links body & brain [2, 3]. After our Prime Minister Narendra Modi has stressed about the importance of yoga and meditation, the practice of yoga & meditation has increased significantly. Yoga & meditation is indeed becoming an important and integral part to de-stress or rather a ‘stress buster’ in day-today modern life style. OM covers the whole threefold experience of man, It is the combination of three letters A, U and M. A represents the physical plane, U represents the frontal & astral plane, the world of intelligent spirits & M represents the whole deep – sleep state[4]. OM meditation involves non reactive monitoring of the content of experience from moment to moment[5]. Yoga & meditation have gained importance in National center for complimentary & alternative medicine (NCCAM) with the objective of meditation as alternative medicine with healing practices [6]. The study on OM meditation showed that after practicing OM meditation there was a decrease in heart rate & beta rhythm in EEG[7].

Autonomic & respiratory studies suggest that there is a combination of mental alertness with physiological rest during the practice of “OM” meditation[8]. The importance of OM meditation has come to be recognized, which has not only has the therapeutic but also rehabilitation purpose too[9]. Therefore this study was planned to find out the effect of OM meditation on BP of young adults of B.G.Nagara who practiced OM Meditation for thirty minutes daily.

METHODOLOGY

Subjects were healthy volunteers in the age group of 20 – 30 years of B.G NAGAR, With BMI of 19 to 25 kg/m². All the subjects were non- smokers and were not on any medications. Those already performing some form of yoga or breathing exercises were excluded from the study. Those with Diabetes, cardiovascular & respiratory diseases & psychiatric illness were also excluded from the study. The study was prior reviewed and approved by the Institutional ethical committee. Each subject gave a written consent before participating in the study. A sample size of 50

subjects was calculated based on the results of a pilot study done on similar subjects.

The selected groups of subjects were made to practice the OM meditation daily for 30 minutes between 7am-8am, for a period of three months. Subjects were instructed to sit erect while performing the OM meditation. BP was recorded using mercuric sphygmomanometer and was recorded between 8 - 9AM on both the occasions. Statistical analysis of the

data obtained was done using Student-‘t’ test, and other relevant statistical tools.

RESULTS

The parameters thus recorded were analyzed for statistical significance using Student’s ‘t’ test and p < 0.05 was considered the level of significance. SBP & DBP was significantly decreased after practicing OM meditation. (P value <0.01).

Table-1: Physical characteristics of the subjects

Parameters	Mean ± SD
Age(years)	24.78±6.21
Ht(m)	1.49±0.08
Wt(Kg)	51.76±9.23
BMI(Kg/m ²)	20.63±2.96

Table-2: Comparison of Blood pressure in the subjects before & after practicing OM meditation

Parameters	Before meditation	After meditation	P value
SBP (mm Hg)	124.64±4.51	112.71± 2.21	<0.01
DBP (mm Hg)	80.17±3.56	74.64±1.82	<0.01

DISCUSSION

In our study both SBP and DBP was significantly decreased after practicing OM meditation. This decrease in SBP is due to increased vagal tone & decreased sympathetic activity [10]. Chanting of OM meditation causes the shift of autonomic equilibrium towards parasympathetic dominance because of the reduction in sympathetic activity & increase in parasympathetic activity. This modulation of ANS activity probably might have been brought the conditioning effects of OM meditation on autonomic functions, mediated through limbic system & higher area of CNS. Since the limbic system controls the ANS, reduction in limbic arousal by OM meditation may explain how OM meditation increases automatic stability & reduces SBP[11].

DBP is the reflection of peripheral resistance, regulated by sympathetic activity. Chanting of OM meditation brings about the withdrawal of Sympathetic tone in skeletal muscle blood vessels, leading to widespread vasodilatation, thus causing decrease in peripheral resistance in turn decreasing the DBP. The results of the present study are consistent with study done by Sheryl Telles *et al.* [12]. Limitations of the study – Less number of subjects in the study & this study can be implemented in large number of subjects

ACKNOWLEDGEMENT

We sincerely thank participants for participating in the study.

REFERENCES

1. Anand BK. Yoga and medical sciences. Indian journal of Physiology & Pharmacology. 2001;35(2):84-87.
2. Johnson WO. Autonomic stability & Transcendental meditation .Psychosomatic medicine. 1996;35(4):341-49.
3. Telles S Dessiraju T. Recording of auditory middle latency evoked potentials during practice of meditation with the syllable OM. Indian journal of medical research. 1999;98(2):237-39.
4. Kumar S, Nagendra HR, Manjunath NK, Naveen KV, Telles S. Meditation on OM: Relevance from ancient texts and contemporary science. International journal of yoga. 2010 Jan;3(1):2.
5. Lutz A, Slagter HA, Dunne JD, Davidson RJ. Attention regulation and monitoring in meditation. Trends in cognitive sciences. 2008 Apr 1;12(4):163-9.
6. Telles S, Nagarathna R, Nagendra HR. Autonomic changes while mentally repeating two syllables-one meaningful and the other neutral. Indian Journal of Physiology and Pharmacology. 1998 Jan;42:57-63.
7. Hirai T. EEG changes during concentrated relaxation. Psychiatria et neuroglia Japonica. 2006; 62:76-85
8. Kumar S, Nagendra HR, Manjunath NK, Naveen KV, Telles S. Meditation on OM: Relevance from ancient texts and contemporary science. International journal of yoga. 2010 Jan;3(1):2.
9. Shankarappa V, NachalAnnamalai VS. To compare peak expiratory flow rate and breath holding time in normal and pranayama practitioners. Indian J. of physiology and pharmacology. 2008;52(5).

10. Bernardi L, Sleight P, Bandinelli G, Cencetti S, Fattorini L, Wdowczyk-Szulc J, Lagi A. Effect of rosary prayer and yoga mantras on autonomic cardiovascular rhythms: comparative study. *BMJ: British medical journal.* 2001 Dec 22;323(7327):1446.
11. Telles S, Raghavendra BR. Neurophysiological changes in meditation correlated with descriptions from the ancient texts. *Biofeedback.* 2011 Jun;39(2):56-9.
12. Telles S, Nagaratna R, Nagendra HR. Autonomic changes during OM meditation. *Indian journal of Physiology & Pharmacology.*1995;39(4):419-20.