

Effects of OM Chanting during Exams Stress at Chirayu Medical College & Hospital, Bhopal

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Abstract

Original Research Article

Background: The effects of Om meditation were studied in 80 cases of moderate Hypertension under medication that were in the age group of 30–60 years at Chirayu Medical College & Hospital, Bhopal. **Method:** The effects of Om meditation were studied in 80 cases of moderate Hypertension under medication that were in the age group of 30–60 years at. The subjects of the study were selected from cardiac outpatient department. The subjects, who had poor control of B.P even with antihypertensive drugs, were selected for the study. Of 60, only 50 subjects qualified the inclusion criteria because we excluded severe hypertensives (B.P > 179/109 mmHg) as per AHA 07 classification and hypertensives with complications. **Result:** The abrupt effect of 5 min of Om chanting in uncomplicated moderate hypertensives showed statistically significant reduction in systolic B.P as well as diastolic B.P. and also significant reduction in PR. Om chanting can be used to control B.P in moderate hypertensive subjects and to manage B.P in mild hypertensives even before starting the drug therapy. **Conclusion:** Om chanting can be used to control B.P in moderate hypertensive subjects and to manage B.P in mild hypertensives even before starting the drug therapy. It can be added to the lifestyle of subjects in the prehypertensive stage and in subjects having strong family history. In the present scenario of higher stress in routine life, 5 min Om chanting can be incorporated in the routine of adults to reduce the overall prevalence of HTN in the country.

Keywords: Om Chanting, Mediation & Hypertensives.

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INTRODUCTION

In today's fast life people are facing many challenges & problems ever since the stress perhaps the most commonly experienced among them. Stress or 'chinta' is said to be more harmful than the flame because flame burns the person after death, while, stress burns the person alive [1].

We have used Om chanting in our study because it is the most commonly practiced spiritual technique by the people since the time of Upanishads. Education has been highly valued in Indian culture since times immemorial and is seen as the major pathway to social success [2].

These days' people are aware of several techniques of pranayama & meditation, but there is no standard and scientifically proven advice given to the patients for reduction of B.P. In this study, humble attempt has been made to scientifically define the benefits of a particular type of meditation for a particular period in hypertensive subjects [3].

MATERIALS & METHODS

The effects of Om meditation were studied in 80 cases of moderate Hypertension under medication that were in the age group of 30–60 years at Chirayu Medical College & Hospital, Bhopal from Jan 2018 to Dec 2018. The subjects of the study were selected from cardiac outpatient department. The subjects, who had poor control of B.P even with antihypertensive drugs, were selected for the study. Of 60, only 50 subjects qualified the inclusion criteria because we excluded severe hypertensives (B.P > 179/109 mmHg) as per AHA 07 classification and hypertensives with complications.

In selected subjects, there were 28 males and 22 females. Their mean age was 50 years. The subjects suffering from Hypertension for 1–20 years were included in the study. The mean duration of Hypertension for these subjects was 5 years. All the subjects were on antihypertensive drug therapy, out of which 40 subjects were on lipid-lowering drugs also, however, at the time of the study; their fasting lipid profile was within normal range.

The detailed case history was taken regarding family history of Hypertension, duration of the disease, duration of treatment, type and dose of drugs, adherence to drugs, and diet regime. Detailed medical examination was done to rule out cardiac and neurological complications.

Inclusion Criteria

The following criteria were included in the study:

- Males and females
- Age 40–60 years
- Moderate hypertensives (systolic 140–179 mmHg) and diastolic (90–109 mmHg) (2017 AHA guidelines)
- Under antihypertensive therapy
- Without any cardiac or neurological complications.

Exclusion Criteria

The following criteria were excluded from the study:

- Secondary HTN of any etiology
- Significant cardiovascular complications
- Thyroid disorders
- Uncontrolled diabetes mellitus
- Addiction to alcohol
- Subjects practicing yoga/meditation/stress reduction technique.

The results were expressed in terms of Mean±SD. Data was analyzed by SPSS 20.0. Paired t-test was used to compare the values of the groups. P value<0.05 was considered as significant.

RESULTS

Table-1: Distribution of Subjects according to Age and Sex

| Sex | Age | Number of subjects (%) |
|----------------|-------|------------------------|
| Male (years) | 30–50 | 23 (28.75) |
| | 50–60 | 22 (27.5) |
| | Total | 45 (56.25) |
| Female (years) | 30–50 | 19 (23.75) |
| | 50–60 | 16 (20) |
| | Total | 22 (27.5) |

Table-2: Changes in B.P. and PR before and immediately after Om Chanting

| B.P. | Mean ± SD | | P Value |
|------------------|-------------------|------------------|---------|
| | Before meditation | After meditation | |
| Systolic (mmHg) | 156.29±66 | 136.27±96 | 0.01 |
| Diastolic (mmHg) | 91.7±4.1 | 82.6±7.4 | 0.03 |
| PR (beats/min) | 79.82±7.3 | 69.±6.5 | 0.04 |

B.P.: Blood pressure, SD: Standard deviation, PR: Pulse rate

DISCUSSION

Our study supports earlier studies as we have also observed significant decrease in the blood pressure and pulse rate followed by Om meditation. This decrease may be due to effect of Om meditation on autonomic functions, which causes psycho physiological relaxation. We have observed significant decrease in depression, anxiety and stress scores. Yoga mantras & prayers have been found advantageous for many physiological and psychological functions of the body [4]. Om chanting is an important exhalation exercise [5] and significantly improves pulmonary functions in healthy subjects. Significant decrease in the heart rate was reported followed by Om meditation [6].

In this study, significant deactivation was bilaterally during 'OM' chanting in evaluation to the resting brain state in orbito-frontal, anterior cingulate, parahippocampal gyri thalami & hippocampi. In addition the right amygdale demonstrated significant deactivation. No significant activation was observed during 'OM' chanting. In contrast, neither activation nor deactivation occurred in these brain regions during the comparative task. Even if there is no previous report on

the effect of 'OM' chanting on brain hemodynamic responses, a former study by Kraus *et al.* [7], had examined the impact of transcutaneous VNS on BOLD changes using fMRI. Since the commonality of the vagus involvement (as hypothesized in the current study), we compared our study observations with this earlier study [7]. Interestingly, our study findings are in tune with this previous study; significant deactivation was observed in the amygdala, parahippocampal, hippocampal brain regions. This reveals that neurophysiological effects of 'OM' chanting may be mediated in the course of the auricular branches of the vagal nerves.

CONCLUSION

The abrupt effect of 5 min of Om chanting in uncomplicated moderate hypertensives showed statistically significant reduction in systolic B.P as well as diastolic B.P. and also significant reduction in PR. Om chanting can be used to control B.P in moderate hypertensive subjects and to manage B.P in mild hypertensives even before starting the drug therapy. It can be added to the lifestyle of subjects in the prehypertensive stage and in subjects having strong

family history. In the present scenario of higher stress in routine life, 5 min Om chanting can be incorporated in the routine of adults to reduce the overall prevalence of HTN in the country.

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