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Effect of *Yoga Nidra* (Psychic Sleep) in patients with Alcoholic Hypertensives - A Randomized Controlled Trial

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ABSTRACT

Background: Primary Hypertension in alcoholic individuals is one of the major health issues of the society. *Yoga* is found to have a wonderful tool to treat primary hypertension in alcoholic individuals. *Yoga Nidra*, is a cost effective tool to manage these symptoms. **Objectives:** The objectives of the study are to assess whether *Yoga Nidra* is having effect on blood pressure, heart rate variability & respiratory rate in primary hypertensive alcohol dependent individuals. **Materials and Methods:** A total of sixty primary hypertensive alcoholic dependent individuals have been recruited after they meet the inclusion and exclusion criteria and the screening of the subjects by using Alcohol Use Disorders Identification Test (AUDIT) questionnaire and into two Groups, Subjects in the group one practiced *Yoga Nidra* for a period of 10 days and group two carried on its routine activities. Both the groups were assessed for blood pressure, heart rate variability & respiratory rate at day one and day ten. **Results:** In the present study comparison between the group there was a significant results seen in the HR, RR, SBP with P value < 0.0001, LF/HF ratio with P value < 0.0500, DBP with P value < 0.0257 respectively. **Conclusion:** Ten days of *Yoga Nidra* practice has shown to bring a positive influence in primary hypertensive alcoholic dependent individuals in improving HR, RR, Mean RR, RMSSD, NN50, PNN50, VLF, LF, HF, LF/HF ratio, SBP & DBP.

Key words: Alcoholic Dependent Individuals; Heart Rate variability, Hypertension, *Yoga Nidra*

INTRODUCTION

Hypertension (HT) or High Blood Pressure (HBP) is a chronic medical condition in which the systemic arterial Blood Pressure (BP) is elevated. It is divided into Primary HT, which accounts for roughly 90-95% of cases and has no known medical explanation, and Secondary HT, which accounts for the remaining 5-10% of instances and is brought on by other disorders that

affect the kidneys, arteries, heart, or endocrine system.

Better control of HT could avoid 300,000 of the 1.5 million cardiovascular disease-related fatalities that occur in India each year. HT is a key risk factor for stroke, myocardial infarction, heart failure, and arterial aneurysm. It is also a main cause of chronic renal failure.^[1]

HT is the most prevalent disorder. An epidemiological study concluded that nearly one billion people or ~26% of the adult population have HT. It was common in both developed (333 million) and undeveloped (639 million) countries.^[2] Epidemiological studies demonstrate that prevalence of HT is increasing rapidly among Indian urban populations and using the current definitions more than two-fifths of the Indian urban adult population has HT. The prevalence is lower in rural populations, but is increasing.^[1] The burden of HT^[3] increases with age, and among individuals aged 60; prevalence is about 65.4%. Large clinical trials in hypertensive patients showed that reduction of BP is

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crucial in reducing adverse cardiovascular outcomes. A small reduction in BP could reduce the risk of heart failure, stroke, and myocardial infarction markedly.^[4] Although there are numerous therapies or protocols for treatment of HT none of them form a complete solution. The first line of treatment for HT is preventative such as lifestyle changes, dietary changes, physical exercises and weight loss, which have been shown significant reduction of BP in hypertensive's.^[5] In HT, where BP could controlled by medications, life style changes are recommended as adjunctive therapy for further reduction of BP. But due to the expensive expense of these treatments as well as the negative physical consequences of the medications, significant portions of the hypertensive population are either not treated at all or are treated insufficiently. Non-pharmacological alternative therapies, such as Yoga therapy, can effectively be used to combat this. Indian yogic practices have a long history. Numerous studies have found that Yoga may be advantageous for HT patients.^[6]

In Yoga Sutras, Yoga is defined as union of mind, body and spirit. Yoga is understood as science of mind classically. Controlling the modifications of mind is gained by the yogic experiences.^[7] The credit of compiling Yoga Sutras (threads of Yoga) goes to Sri Pathanjali who is considered as "Father of Yoga" dated since 5,000 BC to 300AD. In western countries Yoga is believed primarily as Asana's breathing and meditation.^[8] In America it is estimated as 14.9 million practice Yoga some say that Yoga has become a transnational world practice.^[9,10] As per the experience of many people Yoga induces good relaxation, Yoga is considered as mind-body exercise. Yoga helps to shape the body, emotions, thoughts and attitude.^[11] Many researchers have found that Yoga is effective for relieving stress and anxiety conditions that impact many physical and mental health conditions.^[12] Relaxation techniques in Yoga help to reduce psychological and physiological reactions to stress.^[13,14] Various relaxation techniques often lead to particular physiological and psychological changes as relaxation response.^[15] Yoga Nidra is one of the deep relaxation technique developed by Swami Satyananda Saraswati.

Yoga Nidra helps the patients having psychological problems specially anxiety and depression.^[16] The current study is meant to study the effect of Yoga Nidra on hypertensive alcoholic individuals.

MATERIALS AND METHODS

Source of Data

The subjects will be recruited from SDM de-addicted camp located in Ujire, Belthangady, (Taluk), D.K (Dist.), Karnataka State, after initial screening for pre-diagnosed hypertensives, under conventional treatment.

Method of Collection of Data

Ethical Considerations

The information sheet that contained information about the study's nature and intervention was given to subjects who met the inclusion criteria. The study information included in the information sheet was reviewed by the subjects with sufficient time provided. They were given the opportunity to ask any questions and if they agree to participate in the study, they were asked to sign the informed consent form which was mainly provided in English and Kannada language. All expressed their willingness to participate in the study by giving signed informed consent. Approval was obtained from Institutional Ethical Committee, (EC 175) as all tests were essentially non-invasive in nature.

Criteria for Diagnosis

Diagnosis of hypertension will be made, as per the eighth report of the joint National committee-8 (JNC-8) on prevention, detection, evaluation and treatment of high blood pressure^[17] published by American Heart Association.

Inclusion Criteria

The following inclusion criteria was the basis for selecting subjects

- Pre diagnosed patients of primary hypertension, who are under conventional treatment.
- Aged between 25-65 years.
- Only Male subjects were allowed.

- Alcoholic associated with hypertension were included.
- Obesity associated with hypertension were included.
- Subjects willing to participate in the study and those who have given written informed consent were included.

Exclusion Criteria

- Patients of secondary hypertension, and those with history / signs and symptoms / laboratory reports are suggestive of nephrologic, neurologic, and ophthalmologic complications were excluded from the study.
- Participants were excluded if they have,
 - Cardiac disorders like coronary artery disease.
 - Cardiac rehabilitation following bypass surgery.
 - Hypertension with renal involvement.

Study Plan

Design: A Randomized Controlled Trial

Sample Size: (n=60)

Potential subjects were screened and eligible patients were recruited for the study randomly. 30 participants in Experimental group and 30 participants in control group were recruited.

Grouping

2 Groups

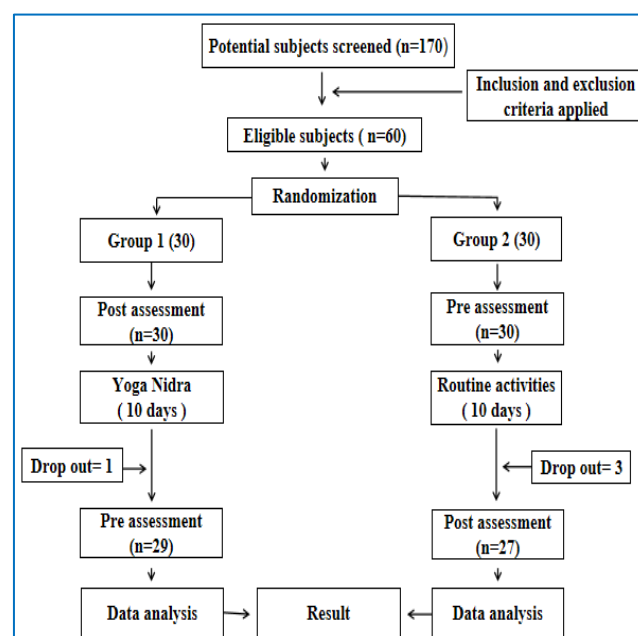
- Experimental Group (n=30)
- Control Group (n= 30)

Method

- The study subjects were identified.
- The subjects were first screened as per the demands of the Inclusion & Exclusion criteria.
- Signed informed consent form prepared in English and Kannada was obtained from every participant after an appraisal about the purpose of the study.

- Selected subjects were randomly allocated to experimental and wait-list control groups.
- Subjects belonging to both the groups were assessed using the selected outcome variables as 'Pre' assessment.
- Subjects belonging to the experimental group were given Yoga Nidra practice for 30mins for 10 days.
- All the subjects were asked to follow the same diet for 10 days.
- Follow up of the patients was kept for 10 days.
- Post assessment was done at the end of 10 days for both Yoga and the Control groups.
- The data collected was tabulated.
- The data was analysed by using appropriate statistical methods.

Figure 1: Illustration of study profile



Assessments

Blood pressure

Blood pressure was recorded on the 1st day and 10th day in the supine lying position by using a standard Mercury sphygmomanometer (BPMR-120 Mercury BP Diamond Delux), auscultating over the right brachial artery. The systolic pressure was noted as the first clear tapping sound (korotkoff sounds) and diastolic

pressure was noted as the reading at which the korotkoff sounds appeared muffled.

Heart rate variability spectrum (HRV)

The electrocardiogram [ECG] was recorded in the supine position for 5 min using Ag/AgCl pre-gelled electrodes and standard bipolar limb lead II configuration (BIOPAC, Montana, USA; model No: BSL 4.0 MP 36). The ECG was digitized using a 12 bit analog-to-digital converter (ADC). The R waves were detected to obtain a point event series of successive R-R intervals, from which the beat-to-beat heart rate series were computed. The HRV power spectrum was obtained using fast Fourier transform analysis (FFT). The energy in the HRV series of the following specific bands was studied, viz., the very low-frequency component (0.0–0.05 Hz), low-frequency component (0.05–0.15 Hz), and high frequency component (0.15–0.50 Hz). The low frequency and high frequency values were expressed as normalized units. The low frequency and high-frequency values are expressed as normalized units. Both time domain and frequency domain values were analyzed. In time-domain mean RR, mean HR, RMSSD, NN50, pNN50, and frequency domain VLF, LF, HF, LF/HF values were extracted from FFT Analysis using the software Kubios 2.0 version.

Intervention

Yoga Nidra group

Participants in the intervention group during the intervention period 10 days were contacted alliterate for an educational session on addiction and its effect hypertension and other health issues, and hypertension's types, causes, and complications. They also received a briefing about medication overuse and DE-addiction treatment protocol. Participants also received handouts that emphasized self-care strategies such as lifestyle modification and self-control practices. The handout also provided information on lifestyle modifications in diet and sleep.

Yoga Nidra^[16]

a) Preparation

Subjects should lie down in *Shavasana* (corpse pose). The body should be straight from head to toe with the palms of the hands facing upward, the legs slightly

apart, and the arms somewhat away from the torso. During Yoga Nidra there should be no physical movement. Subjects should take a deep breath in and out. Allow them to relax their whole body completely throughout the practice. The entire body should be in a state of hearing and awareness during Yoga Nidra, and the only thing that matters is that you pay attention to the instructor's voice.

b) Relaxation

Subjects are told to focus on their bodies and understand the value of total stillness; it causes a feeling of inner relaxation throughout the entire body. Subjects should develop awareness of their body from the top of the head to the tips of the toes and mentally asked to repeat the mantra O--o--o--m--m--m. The subjects will be instructed to experience complete stillness and complete awareness of the whole body and will be asked to repeat O--o--o--m--m--m

c) Resolve

At this moment subjects should make a mental resolve themselves. The resolve must be quite straight forward; it must consist of a single, brief, affirmative remark that is repeated three times with awareness, feeling, and emphasis. The resolve they make during Yoga Nidra is bound to come true in their life. In our study the most suitable resolve will be "my pain will disappear."

d) Rotation of consciousness

The subjects will begin rotation of consciousness, by bringing their awareness at different parts of the body. Subjects should be aware of that part in their mind and simultaneously become aware of that part on the body. They should be aware of the complete right side, complete left side, back of the body, front of the body, and all the major areas of the body.

e) Breathing

Subjects should become aware of their breath. They should feel the flow of their breath in and out of the lungs counting breaths with navel, chest, throat and nostril awareness; each for a count of 27

f) Image visualization

The subjects will be asked to stop counting and visualize a number of different things will be named and they should try to develop a vision of them on all levels of feelings, awareness, emotions, imagination, as best they can as per instructions.

g) Resolve

The subjects will be asked to repeat the same resolve that they made at the beginning of the practice, they should do not change it, ask them to repeat the resolve three times with full awareness and feeling.

h) Finish

Relaxing all efforts, the subjects will be instructed to draw their mind outside and become aware of their natural breath & awareness of the whole body. Subjects will be instructed to relax their body totally relaxed on the floor, breathing quietly and slowly. They will be asked to develop awareness of their body from the top of the head to the tips of the toes and say mentally chant O--o--o--m--m--m.

In the end they will be instructed to sit up slowly and open their eyes.

Control group

Participants were kept as control group during the intervention and were contacted alliterate days in 10 days of the study for an educational session on addiction and its effect hypertension and other health issues, and hypertension's types, causes, and complications. They also received a briefing about medication overuse and DE-addiction treatment protocol. Participants also received handouts that emphasized self-care strategies such as lifestyle modification and self-control practices. The handout also provided information on lifestyle modifications in diet and sleep.

Data Extraction

Heart Rate Variability: The heart rate in beats per minute was calculated by counting the R waves of the QRS complex in the EKG in successive epochs of 60 seconds and averaged for each 5- minute block period.

The HRV power spectrum was obtained using fast Fourier transform analysis (FFT).

Frequency domain analysis - The energy in the HRV series of the following specific bands were studied i.e., the very low frequency component (0.0-0.05 Hz), low frequency component (0.05-0.15 Hz), and high frequency component (0.15-0.50 Hz). The low frequency and high frequency values were expressed as normalized units. LF: HF was also calculated.

Time domain analysis - The following components of time domain analysis of HRV were obtained: the mean RR interval (the mean of the intervals between adjacent QRS complexes or the instantaneous heart rate); RMSSD (the square root of the mean of the sum of the squares of differences between adjacent NN intervals); NN50 (the number of interval differences of successive normal to normal intervals greater than 50ms), and pNN50 (the proportion derived by dividing NN50 by the total number of NN intervals).

Blood pressure: The blood pressure was recorded manually by mercury sphygmomanometer.

Statistical analysis

Appropriate statistical tests were done to assess mean differences across the baseline (1st Day), and endpoint (10th day) based on the quality of data. These tests were done using Statistical Analysis Software - Statistical Package for Social Sciences (SPSS for Windows version 20.0). Comparison of experiment group and control group with mean age, height and weight scores by independent t test. The Kolmogorov Smirnov test was used to assess the normality assumption of all the variables in experiment & control groups. For normal distribution between the groups are calculated by using Mann-Whitney U and Wilcoxon matched pairs tests. Comparison of experiment group and control group with pretest and posttest by independent t test and Mann-Whitney U test.

RESULT

The present study is conducted to evaluate the effect of *Yoga Nidra* on primary hypertensive alcohol dependent individuals and its influence on the outcome variables viz, HR, RR, Mean RR, RMSSD, NN50,

PNN50, VLF, LF, HF, LF/HF ratio, SBP & DBP. Results were assessed in between the groups. Data was extracted at both baseline and post-intervention. The mean age of subject in experimental group is 42.14 years & in control group is 43.89 years. Mean height & weight of subject in experimental group is 5.63ft & 68.52kg & in control group is 5.61ft & 76.52kg respectively. Percentage of subjects taking medication in experimental group is 44.83% & 40.74% in control group.

Table 2: Comparison of experiment group and control group with mean age, height and weight scores by independent t test

Variables	Experiment group		Control group		t-value	p-value
	\bar{x}	SD	\bar{x}	SD		
Age	42.14	5.58	43.89	6.30	-1.1026	0.2751
Height in ft	5.63	0.32	5.61	0.30	0.2388	0.8121
Weight in kg	68.52	9.95	76.52	4.60	-3.8146	0.0004*

*p<0.05

Table 3: Comparison of experiment group and control group with status of medicine

Medicine	Experiment group	%	Control group	%	Total
No	16	55.17	16	59.26	32
Yes	13	44.83	11	40.74	24
Total	29	100.00	27	100.00	56

Chi-square=0.0950, P = 0.7570

The Kolmogorov Smirnov test was used to assess the normality assumption of all the variables in experiment & control groups.

Table 4: Changes in Heart rate variability before and following the experimental and control sessions

Variables	Experiment group			Control group			Between group
	Mean difference	% change	P	Mean difference	% change	P	P
HR (b/min)	7.09 ± 3.38	9.56%	P=0.0001*	1.62 ± 4.81	2.23%	P=0.915	0.0001*
Average RR (ms)	3.39 ± 1.05	22.21%	P=0.0001*	0.59 ± 1.21	3.73%	P=0.172*	0.0001*
RMS SD (ms)	18.82 ± 89.24	35.78%	P=0.7869	9.74 ± 51.67	15.76%	P=0.3282	0.6055
NN50	11.79 ± 133.23	19.69%	P=0.6567	4.19 ± 49.33	11.63%	P=0.3341	0.6759
pNN50 (% units)	1.08 ± 31.43	8.01%	P=0.5481	0.25 ± 10.98	3.20%	P=0.7677	0.6759
VLF	4.04 ± 28.39	8.97%	P=0.4501	-4.46 ± 24.02	-9.34%	P=0.3433	0.2334
LF (nU)	-0.54 ± 29.42	-0.95%	P=0.9218	-3.79 ± 22.52	-7.55%	P=0.3905	0.6469
HF (nU)	0.54 ± 29.43	1.26%	P=0.9222	7.92 ± 18.91	15.90%	P=0.0387*	0.2729
LF/HF	0.45 ± 2.77	18.74%	P=0.5814	-3.81 ± 14.97	-19.76%	P=0.0500*	0.0500*

SBP (mm Hg)	15.79 ± 6.26	10. 80 %	P=0.0 001*	0.89 ± 2.31	0.58 %	P=0.0 156*	0.00 01*
DBP (mm Hg)	3.52 ± 5.15	4.0 7%	P=0.0 033*	0.07 ± 1.41	0.08 %	P=0.7 998	0.02 57*

All values are in Mean ± Standard Deviation,; SBP, Systolic blood pressure; DBP, Diastolic blood pressure; MAP, Mean arterial pressure; PR, Pulse rate; RPP, Rate pressure product; Average RR, Average of R-R Interval; SDRR, Standard deviation of R-R Interval; HR, Heart rate; RMSSD, The square root of the mean of the sum of the squares of differences between adjacent RR intervals; pRR50, proportion derived by dividing RR50 by the total number of RR intervals; LF, Low frequency band of HRV; HF, High frequency band of HRV; LF/HF, Ratio of low frequency to high frequency; SD, Standard deviation.

Note that, the pretest and posttest scores of RMSSD, NN50, PNN50, LF/HF, SBP and DBP in experiment and control groups not follow normal distribution. Therefore, for these variables, the non-parametric tests i.e., Mann-Whitney U and Wilcoxon matched pairs tests were applied. Otherwise, the parametric tests i.e., independent t and dependent t were applied.

The mean pretest and posttest score of HR in experimental group was 74.14 ± 5.56 and 67.05±6.99 respectively and in control group, the mean pretest and posttest score of HR was 72.77 ±12.21 and 71.14 ±12.02 respectively. Both the group showed significant results, experimental group showed significant result compared to control group.

The mean pretest and posttest score of RR in experimental group was 15.27 ± 1.55 and 11.88 ± 0.79 respectively and in control group, the mean pretest and posttest score of RR was 15.87 ± 1.57 and 15.28±2.03 respectively. Both the group showed significant results, experimental group showed significant result compared to control group.

The mean pretest and posttest score of mean RR in experimental group was 781.95 ± 88.67 and 755.44 ± 88.36 respectively and in control group, the mean

pretest and posttest score of mean RR was 726.14 ± 108.38 and 733.76 ±104.37 respectively. Experimental group showed significant result compared to control group.

The mean pretest and posttest score of RMSSD in experimental group was 52.59 ± 77.85 and 33.77±27.00 respectively and in control group, the mean pretest and posttest score of RMSSD was 61.82 ±99.07 and 52.08 ±74.07 respectively. Both the group showed significant results, experimental group showed significant result compared to control group.

The mean pretest and posttest score of NN50 in experimental group was 59.90 ± 107.37 and 48.10 ± 52.95 respectively and in control group, the mean pretest and posttest score of NN50 was 36.00 ±57.57 and 31.81 ± 62.15 respectively. Both the group showed significant results.

The mean pretest and posttest score of PNN50 in experimental group was 13.52±24.26 and 12.44±13.66 respectively and in control group, the mean pretest and posttest score of PNN50 was 7.86 ±12.98 and 7.61 ±15.33 respectively. Both the group showed significant results, experimental group showed significant result compared to control group.

The mean pretest and posttest score of VLF in experimental group was 45.02±19.84 and 40.98±18.20 respectively and in control group, the mean pretest and posttest score of VLF was 47.77 ±23.17 and 52.24 ±24.73 respectively. Experimental group showed significant result compared to control group.

The mean pretest and posttest score of LF in experimental group was 57.22±22.90 and 57.76±20.20 respectively and in control group, the mean pretest and posttest score of LF was 50.16 ±19.94 and 53.94 ±23.09 respectively.

The mean pretest and posttest score of HF in experimental group was 42.78±22.90 and 42.24±20.20 respectively and in control group, the mean pretest and posttest score of HF was 49.82 ±19.98 and 41.90 ±23.10 respectively. Both the group showed significant result.

The mean pretest and posttest score of LF/HF in experimental group was 2.43 ± 2.63 and 1.97 ± 1.52 respectively and in control group, the mean pretest and posttest score of LF/HF was 1.91 ± 3.15 and 5.72 ± 15.48 respectively. Experimental group showed significant result compared to control group.

The mean pretest and posttest score of SBP in experimental group was 146.21 ± 7.14 and 130.41 ± 4.52 respectively and in control group, the mean pretest and posttest score of SBP was 152.81 ± 11.08 and 151.93 ± 11.89 respectively. Experimental group showed significant result compared to control group.

DISCUSSION

Following the practice of *Yoga Nidra* for ten days, autonomic status of primary hypertensive alcohol dependent individuals have been shown to be influenced positively. Results were assessed in between group and pre and post of both case and control group. Ten days of *Yoga Nidra* practice has shown to bring a positive influence in primary hypertensive alcoholic dependent individuals in improving HR, RR, Mean RR, RMSSD, NN50, PNN50, VLF, LF, HF, LF/HF ratio, SBP & DBP.

In a study conducted by Khushubu rani *et al.*, *Yoga Nidra* was given for six months there was significant decrease in their degree of depression (according to the psychological general wellbeing schedule) and observed a significant change during the treatment period.^[18] The *Yoga Nidra* state appears to reflect an integrated response by the hypothalamus, resulting in decreased sympathetic (excitation) nervous activity and increased parasympathetic (relaxation) function.^[16] Statistically significant pre- to post-test improvements in perceived stress, worry, and depression were found. Pre-existing depression accounted for most of the change in worry and perceived stress scores. Pre- to post-test improvements in mindfulness-based skills were also detected.^[19]

The subjects who practiced *Yoga Nidra* felt that they have learnt a skill in the form of *Yoga Nidra* that can be

used in stressful situations to become relaxed and for better management of stress. They experienced that the yoga program helped in decreasing nervousness, tensions, depression, downheartedness, hopelessness, illness and bodily disorders. They felt happy, satisfied, cheerful and lighthearted. They experienced a new outlook of life. Furthermore, it could be that the energy was used to handle the feelings and emotions that they previously suppressed.^[19]

Increased discharge of impulse from the baroreceptor have the potency to excite the vagal activity of the heart and inhibit the tonic discharges from the vasoconstrictor nerve resulting in vasodilation, reduction in blood pressure and cause bradycardia.^[20] Also, Vibration of the nasal /laryngeal mucous membrane during exhalation along with the humming of "O-U-Mmma" can caused reflex apnoea by switching off inspiratory center resulting in bradycardia through chemoreceptor sinu-aortic mechanism.^[21]

Slow breathing affects the sympatho excitation^[22] that can enhance the baroreceptor sensitivity by central inhibitory rhythm resulting in reduced sympathetic activity consequently decreases the blood pressure.^[23] Also, increase in tidal volume during slow breathing activates the Hering–Breuer reflex.^[24] reduces the chemoreflex sensitivity and thus enhances the baroreflex function with a further effect on reducing blood pressure and sympathetic activity.^[25-27] Activation of the parasympathetic tone causes reduced firing of para-gigantocellular nucleus of medulla to locus ceruleus which decreases norepinephrine input to paraventricular nucleus of hypothalamus may explain decreased corticotropin releasing hormone and cortisol resulting in a drop in blood pressure and also relaxes arterial baroreceptors.^[28] It has been noted that respiratory and cardiovascular system shares a similar control mechanism and any change in one system can counter acts on the other.^[29] Studies have shown that subjects with essential hypertension have enhanced chemoreflex sensitivity thereby increases sympathetic activity in turn blood pressure. Recent study have shown that slow breathing improves arterial baroreflex sensitivity and decreases blood pressure in essential

hypertension. A study by Ravinder *et al.* have shown that Slow pace *Bhramari Pranayama* and *Anuloma-viloma Pranayama* influence the heart rate and blood pressure through enhanced activation of the parasympathetic system.^[30]

By using *Yoga Nidra* as an intervention when we compare the *Yoga Nidra* group and control group the present study shows significant results in the domains of autonomic variables. The results overall have shown to be significant using *Yoga Nidra* a very safe and beneficial tool in helping primary hypertensive alcoholic dependent individuals to improve the overall health.

STRENGTH AND LIMITATIONS

Strengths of the study

1. It was a Randomized controlled trail with the clinical application.
2. This is the first study done to evaluate the effect of *Yoga Nidra* in hypertensive alcoholic subjects by using HRV as an assessment criterion.
3. Standard assessment equipment is used to assess HRV hence a precise, reliable data was obtained.

Limitations of the study

1. Sample size is small
2. Only male subjects

CONCLUSION

Ten days of *Yoga Nidra* practice has shown to bring a positive influence in primary hypertensive alcoholic dependent individuals to improve the overall health.

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