Original Article

Efficacy Of Yogic Practices On Systolic And Diastolic Blood Pressure Among Migraine Sufferers

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Abstract

To facilitate the random group experimental study, 90 Men suffering with Migraine between 35 to 45 years of Age were invited, 60 screened and selected finally in random as subjects by using random group sampling design. Subjects were divided into two groups of 20 each. Yoga therapy was imparted for 12 weeks to the experimental and control kept in active rest The pre-test and post-test were conducted before and after the training for the experimental and control group and the scores on Diastolic and Systolic Blood Pressure were measured. Analysis of covariance (ANCOVA) was used to find out the significant differences among the groups. The result of the study showed that Diastolic and Systolic Blood Pressure significantly reduced as a result of Yogic practices in the Experimental Group. Hence the hypothesis was accepted at 0.05 level of confidence. The conclusion was that the Yogic practices helped reduce Diastolic and Systolic Blood Pressure among Men suffering with Migraine.

Keywords: Yogic practices, Middle Aged Men, Diastolic Blood Pressure, Systolic Blood Pressure

INTRODUCTION

Migraines usually affect only the left or right side of the head, most often at the temple, but also around the eye or back of the head. The severity of pain ranges from moderate to severe, and can vary from a steady throb to dagger-like sharpness. Nausea and muscle aches are common, and many sufferers also experience a watering eye, a running nose, or congestion. A migraine episode may last from four to 24 hours. Migraines tend to occur in the evening or at night and often come with warning signs, such as changes in mood, appetite, and activity levels. Some people also experience visual disturbances called auras prior to an attack. These involve seeing a sparkling or flashing zigzag line or blank spots, and are sometimes paired with tingling or numbness on one side of the body like in the hand, arm, and face. Auras often last from 10 to 30 minutes before a migraine strikes.

AIM & OBJECTIVES

The aim and objectives of the study was to find out whether there would be any significant difference on selected Physiological variable such as Systolic Blood Pressure and Diastolic Blood Pressure due to yogic practices among men suffering with Migraine.

HYPOTHESIS

It is hypothesized that there would be significant differences between yogic practices group and control group on selected physiological variables among men suffering with Migraine.

DELIMITATIONS

- Individuals of age below 35 and above 45
- Suffering from headaches other than Migraine
- The study was confined to yogic practices as independent variable only
- The study was confined to Systolic Blood Pressure, and Diastolic Blood Pressure only

LIMITATIONS

- Associated with Cardiovascular and Renal diseases and other chronic systemic disorders and risk factors.
- Conditions affecting consciousness, cognition, mood, sensory motor functions and other important neurological or neuro-psychological function impairments will be excluded.
- The factors would not be taken into consideration like: Medicine intake, Personal habits and addiction, Environmental conditions, Family history, Disabilities, Climatic conditions

REVIEW OF LITERATURE

Rebecca Erwin Wells (March, 2021) Migraine is the second leading cause of disability worldwide. Most patients with migraine discontinue medications due to inefficacy or adverse effects. Mindfulness-based stress reduction (MBSR) may provide benefit. To determine if MBSR improves migraine outcomes and affective/cognitive processes compared with headache education. This randomized clinical trial of MBSR vs headache education included 89 adults who experienced between 4 and 20 migraine days per month. There was blinding of participants (to active vs comparator group assignments) and principal investigators/data analysts (to group assignment). Participants underwent MBSR (standardized training in mindfulness/yoga) or headache education (migraine information) delivered in groups that met for 2 hours each week for 8 weeks. The primary outcome was change in migraine day frequency (baseline to 12 weeks). Secondary outcomes were changes in disability, quality of life, self-efficacy, pain catastrophizing, depression scores, and experimentally induced pain intensity and unpleasantness (baseline to 12, 24, and 36 weeks).Mindfulness-based stress reduction did not improve migraine frequency more than headache education, as both groups had similar decreases; however, MBSR improved disability, quality of life, self-efficacy, pain catastrophizing, and depression out to 36 weeks, with decreased experimentally induced pain suggesting a potential shift in pain appraisal. In conclusion, MBSR may help treat total migraine burden, but a larger, more definitive study is needed to further investigate these results.

Ravikiran Kisan, MU Sujan, 2014 Jul-Dec; Migraine is an episodic disabling headache requiring long-term management. Migraine management through Yoga therapy would reduce the medication cost with positive health benefits. Yoga has shown to improve the quality of life, reduce the episode of headache and medication. The aim of the present study was to evaluate the efficacy of Yoga as an adjuvant therapy in migraine patients by assessing clinical outcome and autonomic functions tests. Migraine patients were randomly given either conventional care (n = 30) or Yoga with conventional care (n = 30). Yoga group received Yoga practice session for 5 days a week for 6 weeks along with conventional care. Clinical assessment (frequency, intensity of headache and headache impact) and autonomic function test were done at baseline and at the end of the intervention. Yoga with conventional care and convention care groups showed significant improvement in clinical variables, but it was better with Yoga therapy. Improvement in the vagal tone along with reduced sympathetic activity was observed in patients with migraine receiving Yoga as adjuvant therapy.

METHODOLOGY

To facilitate the random group experimental study, 90 Men suffering with Migraine between 35 to 45 years of Age were invited, 60 screened and selected finally in random as subjects by using random group sampling design. Subjects were divided into two groups of 20 each. Yoga therapy was imparted for 12 weeks to the experimental and control kept in active rest The pre-test and post-test were conducted before and after the training for the experimental and control group and the scores on Diastolic and Systolic Blood Pressure were measured. Analysis of covariance (ANCOVA) was used to find out the significant differences among the groups. The result of the study showed that Diastolic and Systolic Blood Pressure significantly reduced as a result of Yogic practices in the Experimental Group. Hence the hypothesis was accepted at 0.05 level of confidence. The conclusion was that the Yogic practices helped reduce Diastolic and Systolic Blood Pressure among Men suffering with Migraine. The practice of yoga techniques like Asana, Pranayama, Meditation, Mudra, etc helps to overcome any imbalances and creates harmony in the physical, mental, psychological and spiritual aspects of human personality.

RESULTS & DISCUSSION

The results of the study on the selected variables showed that for the Group Systolic blood pressure. The data pertaining to the variables collected from the two groups before and after the training period were statistically analyzed by using Analysis of Co-variance (ANCOVA) to determine the significant difference and tested at 0.05 level of confidence. These are shown in the tables below

Results on systolic blood pressure

The Analysis of Co-variance (ANCOVA) on Systolic Blood Pressure Of Yogic Practices Group and Control Group was analysed and presented in Table II.

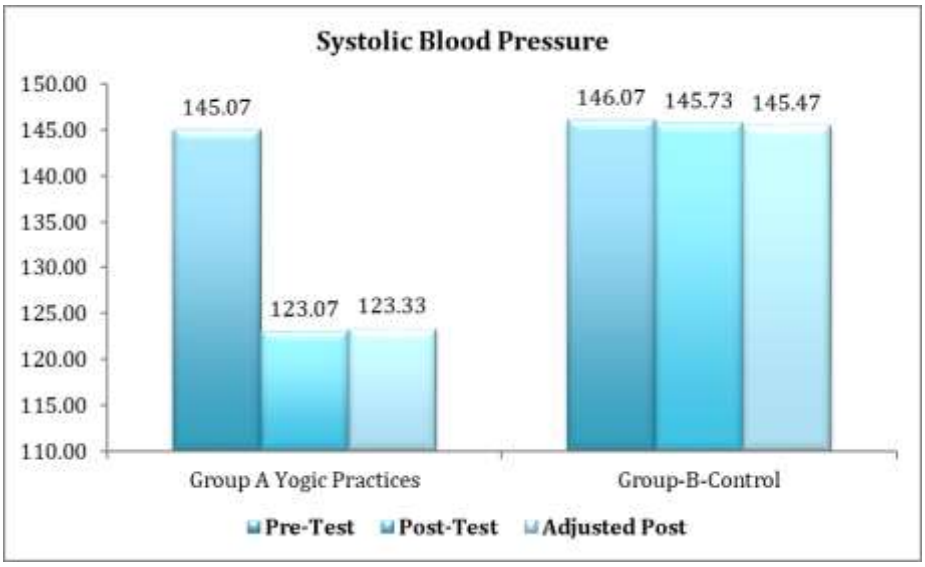
Table I. Analysis of Co-variance of the means of Yogic practices group and control group on systolic blood pressure

Test	Yogic Practices Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F Ratio
Pre test	145.07	146.07	between	146.07	1	146.07	1.21
			within	3299.87	28	117.85	
Post test	123.07	145.73	between	3853.33	1	3853.33	57.07
			within	1857.87	28	66.35	
Adjusted	123.33	145.47	between	3664.77	1	3664.77	108.94
			within	908.25	27	33.64	
Mean gain	-22	0.33					

***Significant at 0.05 level of confidence. (Table F ratio at 0.05 level of confidence for 1 and 28 (df) =4.2, 1 and 27(df) =4.21**

The obtained F ratio on pre-test scores 1.21 at 0.05 level of confidence. This proved that there was no significant difference between the groups on systolic blood pressure in pre-test and the randomization at the pre-test was equal. The posttest and adjusted post test scores analysis proved that there was significant difference between the groups, as obtained F values 57.07 and 108.94 were greater than the required F value of 4.2 and 4.21 respectively) in line with the study conducted by Ravikiran Kisan.

Figure I. Analysis of Co-variance of the means of Yogic practices group and control group on systolic blood pressure



***Significant at 0.05 level of confidence. (Table F ratio at 0.05 level of confidence for 1 and 28 (df) =4.2, 1 and 27(df) =4.21**

The pre- test, post- test and adjusted post –test mean values of Yogic Practices group and the Control Group on Systolic Blood Pressure were graphically presented in Figure I.

Results on Diastolic blood pressure

The obtained F ratio on pre-test scores 2.54 at 0.05 level of confidence. This proved that there was no significant difference between the groups on diastolic blood pressure in pre-test and the randomization at the pre-test was equal.

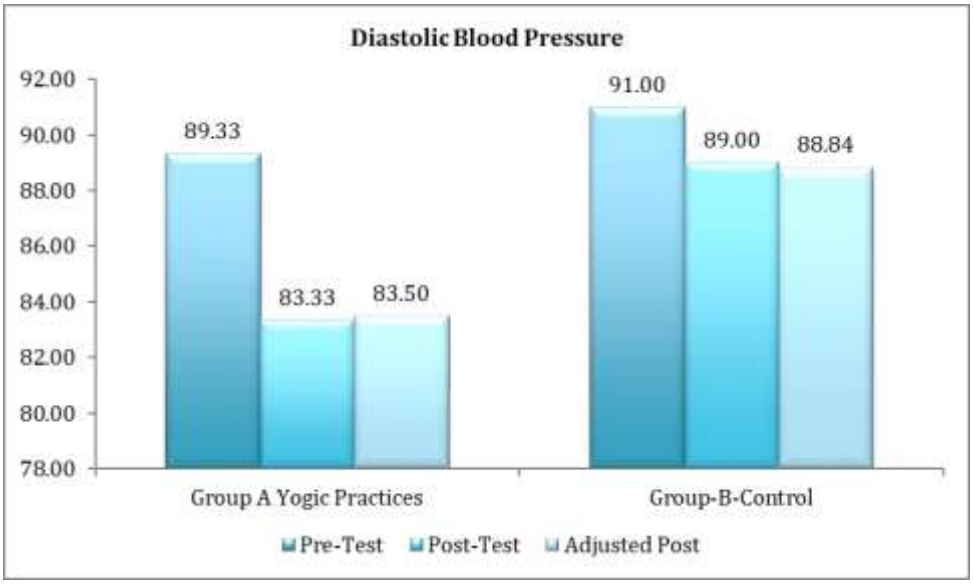
The post test and adjusted post test scores analysis proved that there was significant difference between the groups , as obtained F values 15.21 and 13.98 were greater than the required F value of 4.2 and 4.21 respectively) in line with the study conducted by Ravikiran Kisan. The pre- test, post- test and adjusted post –test mean values of Yogic Practices group and the Control Group on Systolic Blood Pressure were graphically presented in Figure II.

Table I. Analysis of Co-variance of the means of Yogic practices group and control group on systolic blood pressure

Test	Yogic Practices Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F Ratio
Pre test	89.33	91	between	91.00	1	91.00	2.54
			within	1003.33	28	35.83	
Post test	91	89	between	240.83	1	240.83	15.21
			within	443.33	28	15.83	
Adjusted	83.50	88.84	between	209.30	1	209.30	13.98
			within	404.13	27	14.97	
Mean gain	-6	-2					

***Significant at 0.05 level of confidence. (Table F ratio at 0.05 level of confidence for 1 and 28 (df) =4.2, 1 and 27(df) =4.21**

Figure II. Analysis of Co-variance of the means of Yogic practices group and control group on Diastolic blood pressure



***Significant at 0.05 level of confidence. (Table F ratio at 0.05 level of confidence for 1 and 28 (df) =4.2, 1 and 27(df) =4.21**

CONCLUSION

It was concluded for Experimental Group Diastolic and Systolic blood pressure were significantly stabilized due to the influence of yoga practices than the control group among men suffering with Migraine.

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