



A Study of The Effect of Anulom - Vilom Pranayama and Shavasana on Blood Pressure

□ Rajni Prabha

Abstract- *In modern time, yoga is becoming most popular science due to its positive effect on health. In this pranayama plays a very important role in astanga yoga. Pranayama is a technique to control or expand the energy in body. Practice of Pranayama has been known to modulate cardiac autonomic status with an improvement in cardio-respiratory functions. Keeping this in view, the present study designed to determine the effects of Anulom vilom pranayama and Shavasana on Blood Pressure.*

Aim- *This study was conducted to understand the role of short term practice of Pranayama in blood pressure.*

Material and methods- *In this study 30 subjects of 20-40 years age group were selected and do practice of yoga for one month. Both systolic and diastolic blood pressure were measured before and after performing Anulom - Vilom pranayama and Shavasana. This study indicates that, Anulom-vilom pranayama and Shavasana shows significant decrease in systolic & diastolic blood pressure and gives good result to maintain normal blood pressure and also to resolves the stress level that we get in our daily life.*

Introduction - "Prasanna aat medriya manah, swastha ityabhidheeyate" which implies "serenity of atma (soul), mind and body means health". Yoga is a technique to achieving this health. According to Joint national committee (1997) the definition of hypertension is SBP as 140mmhg or higher or DBP as 90mmhg or higher or both and is estimated that it is effecting approximately one billion worldwide where as <120mmhg of hg as SBP and <80mm hg as DBP is considered as normal blood pressure. It is estimated that the prevalence of hypertension in India is about 25% among urban adults and 10% in the rural area. Several dietary changes and other lifestyle-related factors are one of the cause in development of high blood pressure. As per

WHO stress is one of the major cause of disability and will become second leading cause bevy the year 2020. Relaxation and stress releasing methods like yoga asana, pranayama, meditation, have been shown to capable of lowering blood pressure, since they had beneficial effects via cardiovascular reflex control system.

Material and Methods- Subjects - There were 30 subjects with the ages ranging between 20-40 years. None of them were taking medication. All subjects were in normal physical health. They practice Anulom- Vilom Pranayama and Shavasana

Method and design - The study design was explained to participants and their signed informed consent was obtained. The pranayama technique was clearly demonstrated and explained to the

subjects. First, everyone has to sit comfortably in sukhmasana. Then first Anulom - vilom (alternate nostril breathing) Pranayama practice the subject was asked to relax 5 sec. before starting and instructed to inhale through the left nostril while keeping the right nostril closed with the thumb of right hand. Return the breath for a few seconds and exhale from the right nostril with the middle and ring fingers closing the left nostril. Then again inhale through the right nostril and exhale through the left nostril. This is the one round of anulom -vilom pranayama and practiced for 10 min. After 10 minutes of this breathing practice, subject were instructed to do

Shavasana relaxation technique for 10 min. and then blood pressure were recorded. After the breathing exercise subjects were asked about their feeling.

Research design - In this study Pre- Post research design was used.

Parameter measurements - Both systolic and Diastolic blood pressure were measured by auscultatory method by using sphygmomanometer and stethoscope. **Duration** - The practice of anulom - Vilom pranayama & shavasana was done daily continuing for 30 days duration for 20 min. at morning. (10 min. for pranayama & 10 min. for Shavasana).

Result - Effect of Anulom- vilom pranayama & Shavasana on Blood Pressure

Result	Systolic Blood Pressure (mmHg) (mean ± SD)	Diastolic Blood Pressure (mmHg) (mean ± SD)	P-value
Before Pranayama	123.60 ± 4.11	72.86 ± 6.07	<0.01
After Pranayam	116.20 ± 2.48	6.40 ± 5.23	<0.01

The result shown in table, that a significant difference with p-value <0.01 is systolic blood pressure and diastolic blood pressure with P-value <0.01.

Discussion - Blood Pressure is related with cardiovascular system which is controlled by Autonomous nervous system (ANS) Pranayama control increases cardiac output , decrease hepatic renal blood flow and increases cerebral peripheral vessels blood flow. Right nostril breathing activates sympathetic nervous system and left activates PNS. Alternate nostril breathing (anulom-vilom)

brings about balance in the autonomous nervous system.

Conclusion :- In this study , we got the significant effect of Anulom -vilom pranayama and Shavasana on both systolic & diastolic blood pressure. this significant result proved that the practice of Anulom - Vilom Pranayama & shavasana give good result to maintain blood pressure and to reduces the stress that we got in our daily life.

REFERENCE

1. Sushruta: Sushruta Samhita illustrated by KR Srikantha Muethy, Sutrasthan.

- 15/41, Varanasi : Third edition
2007, p.110.
2. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL Jr, Jones DW, Materson BJ, Oparil S, Wright JT Jr, et al.: The seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: the JNC 7 report JAMA 2003; 289(19):2560-2572.
 3. Murray CJL, Lopez AD. The global burden of disease a comprehensive assessment of mortality and disability from disease, injuries and risk factor in 1990 and projected to 2020 .Report on behalf of the WHO and World Bank ,Cambridge; Harvard University;1996.
 4. Grossman E., Grossman A., Schein MH ,Zimlichman R and Gavish B. Breathing control lowers blood pressure .Journal of human hypertension (2001) 15,370-377.
 5. K.S. Gopal et al, The effect of Yogasana on muscular tone and cardiorespiratory adjustment, yoga life, May, 1975, pp3, 11
 6. H, Motoyama , 'Hypnosis , Psychosis and religious experience ' . I .A.R.P., research for religion and parapsychology ,December 1976.
 7. K.K Daate , S.N.Deshmukh ,C.P.et al .'shavasan -A yogic exercise in the management of hyper -tension ' , angiology , pp325-333.
 8. Telles S, Desiraju T.Heart alterations in various type of Pranayam.India J Physiol,Pharmacol 1992;36(4) : 287-288.
 9. A Biswas and KN Ingle. Cardiovascular and Reaction time changes with short term Yoga training in medical students D M I M S Medical journal ,2006;2(2):89-96.
 10. Gopal , K.S., Bhatanagar ,O.P., Subramanian,N.,Nishith,S.D.(1973)." Effect of Yoga and pranayama on blood pressure,pulse rate and some respiratory function".Indian J.Physio.Pharmacol.17(3),273-76.
