Yoga Therapy And Hypertension : A Review

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Abstract- *Hypertension refers to the pressure of blood against artery walls. Over time, high blood pressure can cause blood vessel damage that leads to heart disease, stroke and other problems. Hypertension is sometimes called the silent killer because it produce no symtoms and can go unnoticed and untreated for years. Hypertension maybe caused by a wide variety of known causes such as age, family history, gender, dietary habits, stress and strains. Psycological stress and faulty life style are the major contributors to hypertension. Mindfullness - bases stress reduction such as yoga has been shown to play a major role in recovery and contribute to the general health. It has immense popularity as a form of recreational activity all over world.*

Yoga is spiritual and self discipline method of integrating the body, breath and mind. Yoga is thus described as comprising a rich treasure of physical and mental techniques that can be effectively used to create physical and mental well being. Since its introduction into modern culture, yoga has enjoyed a tremendous growth in popularity as an adjunct to healthy living. When working with Yoga therapy it is vital that we take into consideration all of the following aspects that will be part of the integrated approach to the problem. These aspects are: Diet, Environment, Lifestyle, Bodywork, Breath work and the Thought Process.

Keywords- Hypertension, Yoga therapy, Life style, Stress management.

I. INTRODUCTION

Persistent increase in systemic arterial blood pressure is known as hypertension. Clinically, when the systolic blood pressure rises above 150mm Hg and diastolic pressure rises above 90 mmHg, it is considered as hypertension.

II. TYPES OF HYPERTENSION

Hypertension maybe caused by a wide variety of known causes. Still in vast majority of cases, no definite cause can be detected. Thus, there are two types of hypertension.

Primary or essential hypertension - without any demonstrable cause

Secondary hypertension

Primary Hypertension

The blood pressure is elevated in the absence of any underlying disease. This is otherwise known as essential hypertension. The arterial blood pressure is increased because of increased peripheral resistance, which occurs due to some unknown cause.

The level of blood pressure in any individual depends mainly on two factors, peripheral resistance and cardiac output. Out of these two, peripheral arterial resistance is more important. When arteries become narrower, the heart has to exert more. Narrowing of arteries maybe temporary due to functional spasm or permanent due to thickening of their walls. Stress and strain, Body constitution such as obesity and hyperlipidemia. Dietary habits are other contributory factors.

Secondary hypertension

Secondary hypertension is due to some underlying disease. The different forms of secondary hypertension are, Cardiovascular hypertension, Endocrine hypertension, Renal hypertension, Neurogenic hypertension, Hypertension during pregnancy.

The secondary hypertension is cured by treating the disease causing hypertension.

What are the symptoms of hypertension

Most people with high blood pressure have no signs or symptoms headaches, dizziness or nosebleeds are common warning signs of high blood pressure. Other conditions that can lead to uncontrolled high blood pressure cause the following symptoms: Excessive perspiration, Muscle cramps, Weakness, Frequent urination, Rapid or irregular heartbeat (palpitations)

Complications of hypertension

Stroke

Hypertension is the most important risk factor for stroke. Very high pressure can cause a break in a weakened blood vessel, which then bleeds in the brain. This can cause a stroke. If a blood clot blocks one of the narrowed arteries, it can also cause a stroke.

Impaired Vision

High blood pressure can eventually cause blood vessels in the eye to burst or bleed. Vision may become blurred or otherwise impaired and can result in blindness.

Arteries

As people get older, arteries in the body "harden," especially those in the heart, brain, and kidneys. This, in turn, causes the heart and kidneys to work harder.

Kidney Damage

The kidneys act as filters to rid the body of wastes. Over time, high blood pressure can narrow and thicken the blood vessels of the kidneys. The kidneys filter less fluid, and waste builds up in the blood. The kidneys may fail altogether.

Heart Attack

High blood pressure is a major risk factor for heart attack. The arteries bring oxygen-carrying blood to the heart muscle. If the heart cannot get enough oxygen, chest pain, also known as "angina," can occur. If the flow of blood is blocked, a heart attack results.

Congestive Heart Failure

High blood pressure is the number one risk factor for congestive heart failure (CHF). CHF is a serious condition in which the heart is unable to pump enough blood to supply the body's needs.

III. YOGA THERAPY FOR HYPERTENSION

Asanas:

Modified versions of the following Asanas as per the physical condition and other associated health problems of the patient.

Standing: Padottana Asana, Hastha Pada Asana, Padangushta Asana

Prone: Bhujanga Asana, Ardha Shalaba Asana, Nouka Asana, • Sitting: Shashaha Asana,
Yoga Mudra Asana

Supine: Matsya Asana, Pavana Mukta Asana and Pada Uttana Asana
Topsy Turvy: Viparita Karani and Sarvanga Asana

Pranayamas: Vibhagha Pranayama and Pranava Pranayama with emphasis on Madhyam
Pranayama. Savitri Pranayama, Ujjayi, Chandra Bhedana, Chandra Anuloma, Nadi Shuddhi, Bhramari, Sheetali, Sitkari.

Kriyas: Kapalabhati

Mudras: Shanmuki Mudra, Aswini Mudra, Brahma Mudra

Relaxation: Shavasana, Mini Shavasana, Makara Asana, • Marmanasthanam Kriya, Kaya
Kriya, Dridha Kriya, Tala Kriya • Anuloma Viloma Kriya and Yoga Nidra. Dharana: Mandala Dharana on all Chakras with emphasis on Anahata Chakra and the sound of YAM (YUNG)

General characteristics of yoic practices

The yogic system of health involves the exercise of all types of muscles of the body.

The associated internal pressure such as intrathoracic and intra-abdominal pressure changes from the basis of yoga system of health. Very little expenditure of energy is involved. All walk of life of people and of all ages can practice yogic exercises easily and effectively. Its main aim is to achieve the highest level of integration through the control of the modification of mind.the nature of yogic practices is psychoneurophysical.

Experience after yoga practice

The relaxation and softening of deep inner tension and blockages

Sense of body – mind equilibrium
Feeling of energetic light – heartedness.
Increase in parasympathetic activities, provides stability of autonomic balance during stress, improves thermoregulation efficiency and cognitive functions such as : concentration, memory, learning and vigilance.

Psychological stress and faulty life style are the major contributors to many diseases of modern civilization such as: obesity, hypertension, coronary artery disease and

diabetes mellitus, mindfulness – bases stress reduction such as yoga has been shown to play a major role in recovery and contribute to the general health.

Impaired baroreflex sensitivity has been increasingly postulated to be one of the major causative factors of essential hypertension. A short period of regular yogic practice for 1hr/day is effective in controlling blood pressure in such individuals.

Mechanisms

Restoration of baroreflex sensitivity with autonomic readjustments. Progressive reduction of sympatho – adrenal and renin- angiotensin activity.

As a complementary and integrative therapy, yoga for the management of hypertension has been studied in numerous randomized controlled trials. On average, the overall effect of yoga therapy results in a reduction of systolic BP of approximately 10 mmHg and approximately an 8 mmHg reduction in diastolic BP [75,104]. Of note, yoga seems to be efficacious only for hypertension, not for pre-hypertension. It is also important to recognize that at this time yoga therapy can only be recommended as an adjunct to antihypertensive pharmacological treatment, not as an alternative therapy alone. Breathing and meditation seem to be the important components of the yoga interventions as well rather than physical yoga asanas for hypertensive patients. These are the components of the yogic practice that can increase parasympathetic activity and decrease sympathetic tone, which counteracts the surplus of sympathetic activity associated with hypertension. In addition, the specific components of yoga practice may help one to self-regulate, so that the mind and body can work to bring one's physical, emotional, autonomic and psychological systems into balance, which is most critical when the body is under stress [105]. After an eight-week yoga program intervention, outcomes from surveys strongly suggested that the yoga practice helped to benefit self-regulation in terms of physical function, enriched sleep quality, dietary improvements with improved lifestyle choices, reduction of stress and anxiety and enhanced calm mental/emotional states in the study participants [106]. Despite the increasing evidence that yogic practices may reduce blood pressure, it is important to recognize that many of the studies done have also included diet modifications, exercise and/or supportive guidance and counseling—all part of the "yogic lifestyle". The exact mechanisms as to the potential benefits of yoga in controlling blood pressure remain unknown at this time.

Other management

Healthy diet: Research has shown that following a healthy eating plan can both reduce the risk of developing high blood pressure and lower an already elevated blood pressure. Study shows that hypertension was reduced by an eating plan that emphasizes fruits, vegetables, and low-fat dairy foods. The diet should include whole grains, poultry, fish, and nuts and has reduced amounts of fats, red meats, sweets, and sugared beverages.

Reduce Salt and Sodium in Your Diet: A key to healthy eating is choosing foods containing less salt and sodium. The current recommendation is to consume less than 2.4 grams.

This equals to 6 grams or about 1 teaspoon of table salt a day.

Reduce body weight: Being overweight increases blood pressure and is also a risk factor for heart disease.

Exercise: Being physically active is one of the most important steps you can take to prevent or control high blood pressure. It also helps reduce risk of heart disease.

Quit Smoking: Smoking injures blood vessel walls and speeds up the process of hardening of the arteries.

Limit alcohol and caffeine: Alcohol and caffeine can raise blood pressure to an unhealthy level. Reducing consumption of alcohol can reduce blood pressure.

Control stress: The effects of stress are usually only temporary. But if you experience stress regularly, it can produce increases in blood pressure that can over time damage your arteries, heart, brain, kidneys and eyes.

IV. DISCUSSION AND CONCLUSION

Conclusion In conclusion, the major lifestyle modifications needed to treat hypertension have been defined in the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) and the World Health Organization International Society Hypertension (WHO/ISH) guidelines (Table III). Despite the need to rely on lifestyle modifications in hopes of preventing hypertension and in managing the disease once developed, the limited success of achieving significant lifestyle changes in clinical practice must be recognized.

Asanas can help correct the structural imbalances and restore balance. They are also useful in improving muscle

strength and endurance, increasing movement and flexibility of joints, skeletal alignment and neuro-muscular coordination

Though Yoga and Yoga therapy are very useful in bringing about a state of total health it is not a miracle cure for all problems. It needs a lot of discrimination on the part of both the therapist as well as the patient.

Yogic diet, Pranayama as well as mind control techniques are especially useful in correcting functional and psychological imbalances.

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