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NORMALIZATION OF THE BLOOD PRESSURE WITH YOGA

Summary: *One of the most common health disorders today is hypertension or high blood pressure. It happens when the pressure in blood vessels is higher than normal expected values for age and sex. In this paper we search if yoga can be efficient method for normalization of the blood pressure. Different studies conducted by Datey, Madanmohan, Vijayalakshmi, Patel, Murugesan and Selvamurthy has shown that potential of yoga is efficient preventive method and supporting therapy in normalization of the high blood pressure.*

Key words: *blood pressure, yoga, stress, hypertension.*

Uvod

Hypertension may be diagnosed properly only after taking several readings. Doctors know that blood pressure needs to be measured at least two times, and each measurement must be taken on a different day. If the average of these blood pressure readings is more than 140/90, hypertension can be diagnosed. A single measurement of the blood pressure that is more than 140/90 doesn't necessarily confirm hypertension but requires further monitoring.

The primary cause of the hypertension is not unidentifiable in 90% of patients, hence known as "primary" or "essential" hypertension. Most of these patients have no clue to their condition as there may not be any symptoms – giving it the name "the silent killer." Even when symptoms are noticeable they are vague like blurred vision, dizziness, headache, and nausea. Unfortunately, by that time, serious damage may have already occurred in blood vessels, heart, eyes, brain, or kidneys.

In less than 10%, the cause of the hypertension is known, so it is called secondary hypertension. Conditions that can cause secondary hypertension include preeclampsia (hypertension in pregnancy), endocrine disorders, coarctation of the aorta, kidney disease, sleep apnea and medication such as birth control pills.

Risk factors for hypertension include being overweight, having diabetes, being a male over the age of 45 (or a female over 55), being of African American descent and eating a lot of salty foods. Hypertension is worsened by smoking, excessive alcohol consumption, prolonged and poorly managed stress, a diet high in fat and /or salt and lack of exercise. Surprisingly, many medical practitioners start their patients on antihypertensive medication after taking just a single isolated reading. This is quite disheartening for once you start someone on anti-hypertensives, it is usually a lifelong affair. The baseline understanding to be developed is that you need to be checked at least on two or more different occasions before starting medication.

Risks associated with hypertension

Health problems in the hypertensive don't occur over days, weeks, or even months but are rather found to occur over many years and affects nearly every part of the human body. By adding strain to walls of the blood vessels, hypertension makes them more likely to develop atherosclerosis with a buildup of fat and cholesterol and "hardening" of arteries that in turn puts extra strain on the heart as it pumps

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blood through the narrowed arteries. Over time this increases the risk of heart disease, stroke, heart attack as well as eye and kidney damage.

Managing a Patient of Hypertension

The initial strategy in managing hypertension should always include a dynamic advocacy of lifestyle changes. However in patients whose BP is extremely high, medications will need to be taken along with other interventions until the condition stabilizes. The aim should be to lower the blood pressure as close to the normal range as possible. Many therapists seem to forget that lifestyle changes are the first step in hypertension treatment. These changes can also help improve the quality of the patient's life as well. We shouldn't be impatient as it may take three to six months before full benefits of lifestyle modifications begin to manifest. These lifestyle modifications include exercising regularly, losing weight, reducing salt consumption, changing over to a heart healthy diet and drinking less alcohol. We must always remember that the control of hypertension requires a lifelong commitment irrespective of whether medications are used or not.

Adoption of a yogic way of life

Tiruvalluvar says in his 1330 versed "Tirukkural", a treatise on right living, "If you look for disease, look for the primary cause of it and then treat it" (*noinaadi noimudhal naadi athuthanikkum vaai naadi vaippach cheyal-Tirukkural 948*).

Yoga enables the individual to attain and maintain a dynamic sukha sthanam that may be defined as a dynamic sense of physical, mental and spiritual well being. The Bhagavad Gita defines yoga as samatvam meaning thereby that yoga is equanimity at all levels (*yogasthah kurukarmani sangam tyaktva dhananjaya siddiyasidhyoh samobutva samatvam yoga uchyate – Bhagavad Gita II: 48*). This may be also understood as a perfect state of health wherein physical homeostasis and mental equanimity occur in a balanced and healthy harmony.

Cultivation of right values and attitudes

The most important part of managing hypertension is cultivation of right attitudes by the development of yogic attitudes towards every part of life. This is vital to reduce the stress that is more often an inner over-reaction than the response to any external stimuli. The attainment of clarity of mind (*chitta prasadhanam*) through the attitudes extolled by Maharishi Patanjali (*maitri, karuna, mudita, upekshanam*) is to be inculcated by the therapist. The importance of taking the opposite view towards negative thoughts and actions (*pratipaksha bhavanam*) as well as emphasis on the cultivation of Karma Yoga, Raja Yoga and Bhakti Yoga principles in daily life.

Healthy Heart Friendly Diet

It should be suggested to patients to eat small meals and there should be adequate amounts of green vegetable salads, fresh fruit juices and sprouts. There should be the minimum possible amount of salt in the diet as salt leads to water retention and a rise in BP. The diet should have adequate potassium and calcium that are present in fruits and low fat dairy products. They help to reduce the BP and fruits are also an excellent laxative too. It is important to maintain good hydration and therapists need to stress the fact that a loss of a few kilos of body weight will help reduce blood pressure.

Breath-Body Movement Coordination Practices

Practices that enhance mind-body harmony through the use of “breath linked movements” should be emphasized. Sukshma Vyayama and Sheetalikarana Vyayama practices as well as the enjoyable Jathis of the Gitananda tradition, meditative practice of the Surya Mantras are useful in this regard. Mentioned asanas, when done slowly harmonized with breath and attention on strategic places and with meditative awareness can also produce psychosomatic harmony.

Yoga Asanas

Modified versions of the following asanas as per physical condition and other associated health problems of the patient may be used. Standing postures such as: Tada Asana, Trikona Asana, Padottana Asana, Hasthapada Asana, Padangushta Asana and Mehru Asana are useful. Prone postures that are of benefit include: Bhujanga Asana and Ardha Shalaba Asana while useful sitting postures include Vakra Asana, Gomuka Asana, Ushtra Asana, Shashaha Asana and Yoga Mudra Asana. The supine postures include Matsya Asana (variations I and II), Pavana Mukta Asana and Eka and Dwipada Uttanpada Asana. Topsy Turvy (inverted) postures may help in resetting baroreceptor reflex mechanisms that regulate blood pressure. This may also be achieved by the ‘head-below-heart’ postures that can do the same if the patient cannot do inverted postures like Sarvanga Asana and Sethubanda Sarvanga Asana.

Yoga pranayamas

Vibhaga and Pranava Pranayama with emphasis on Madhyam Pranayama are beneficial as also Chandra Bhedana and Chandra Nadi Pranayamas that help reduce sympathetic over activity. Savitri, Nadi Shuddhi (Aloma Viloma in the Gitananda tradition) and Bhramari Pranayama are excellent practices to reduce stress. The cooling Pranayamas such as Sheetali and Sitkari also produce a sense of relaxation.

Shat Kriyas: For patients who are able to do them, cleansing practices such as Jala Neti and Trataka clear up the head and neck region. They produce a sense of lightness by reducing toxic accumulation in this region.

Mudras: Viparita Karani, Shanmuki Mudra and Brahma Mudra are all useful in various ways. Viparita Karani helps by virtue of being ‘head-below-heart’ and also has a profound effect on the psycho-neuro-endocrine axis. Shanmuki Mudra produces a sense of inner calm while Brahma Mudra by virtue of working with breath and vibration (Nada) induces a sense of relaxation and reinvigoration in the head and neck region that reduces stress and normalizes the reflex mechanisms.

Yogic Relaxation

Hatha Yoga Relaxation practices that can be done from Shavasana include Spandha Nishpandha Kriya (alternate tension and relaxation), Marmanasthanam Kriya (part by part relaxation) and Kaya Kriya (dynamic body relaxation). Jnana Yoga relaxation practices such as Anuloma Viloma Kriya and Yoga Nidra can help reduce stress levels and create psychosomatic harmony. Even simple Makara Asana offers an excellent antidote to stress and benefits the patients of all psychosomatic disorders.

Dharana and Dhyana

Concentrative practices that induce a state of meditation include the popular Om Japa and Ajapa Japa. Chakra Dhyana is another useful practice while Mandala Dharana may be done on all Chakras with special emphasis on Anahata Chakra to harmonize Prana Vayu that is based in the heart region.

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Yogic counseling

This is a vital component of Yoga Chikitsa when dealing with any lifestyle disorder. Yoga is basically a preventive life-science (*heyam dukkham anagatham- Yoga Darshan II: 16*). The counseling process is not a 'one off' matter but is a continuous process that starts from the very first visit and continues with every session at different levels.

Conclusion

Helping the patient understand their condition, finding the root cause of the problem and creating a healthy opportunity for them to change themselves, is the Dharma of the therapist. Yogacharini Meenakshi Devi Bhavanani has defined Dharma as doing the right thing for the right person at the right place and at the right time in the right manner. It may take many months before we start to witness benefits of these yogic lifestyle changes and Yoga Chikitsa practices. We must continue to motivate the patient to keep working on harmony of their mind, emotions and body. It all may seem to be a 'big ask', but it is necessary to do all of this if we want inner change that will help to overcome hypertension and help an individual to live in harmony with his/her inner potentials.

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