

HYPERTENSION AND ITS YOGIC MANAGEMENT

Yogacharya Dr ANANDA BALAYOGI BHAVANANI

Chairman: International Centre for Yoga Education and Research (ICYER) at
Ananda Ashram, Pondicherry. www.icyer.com and www.rishiculture.org

Introduction: One of the most common health disorders prevalent today is hypertension or high blood pressure. This occurs when pressure inside the blood vessels is higher than the normal expected values for age and gender. Yoga when adopted as a way of life, has a lot to offer for those suffering from this stress induced psychosomatic lifestyle disorder that is a silent killer. Various studies by Datey, Madanmohan, Vijayalakshmi, Patel, Murugesan and Selvamurthy have shown the potential of Yoga as an effective preventive measure as well as adjunct therapy for hypertension.

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

Ethio-pathogenesis: 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 and so it is called secondary hypertension. Conditions that can cause secondary hypertension include preeclampsia,

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.

Shockingly this author has found that many doctors 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 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.

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Lose weight, if possible

Limit alcohol intake

Increase aerobic physical activity

Reduce sodium intake to no more than 100 mmol/d

Maintain adequate dietary calcium, potassium, and magnesium

Stop smoking and reduce intake of dietary saturated fat and cholesterol

Source: J Clin Hypertens © 2004 Le Jacq Communications, Inc.

Major lifestyle modifications needed to treat hypertension 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 are given in the table above. Yoga however takes a more detailed view of hypertension, its prevention as well as management and this will be discussed below.

ADOPTION OF A YOGIC WAY OF LIFE

Tiruvalluvar the great Dravidian mystic says in his 1330 versed Tirukkural, a treatise on right living, "Look for the disease, look for the primary cause of it and then treat it" (*noinaadi noimudhal naadi athuthanikkum vaai naadi vaippach cheyal-Tirukkural 948*). Most modern doctors and even Yoga therapists seem to have lost their way in the maze and are content managing the manifest symptoms without understanding the real cause.

Yoga aims at enabling 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 siddhisidhyoh 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 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 is important to have a diet that is of a healthy nature. Meals should be taken regularly 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 too!

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 are useful in this regard. The Surya Namaskar when done slowly with

breath awareness can also produce psychosomatic harmony and the postures can be held without strain for a short period with meditative awareness of the Surya Mantras (names of the sun).

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.

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 producing 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.

Yogic counseling: This is a vital component of Yoga Chikitsa when dealing with any lifestyle disorder as Yoga is basically a preventive life-science (*heyam dukhkam 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. Ammaji, 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 (and ourselves too!) to keep up their (our) efforts without allowing any slackening to occur. It all may seem to be a 'big ask', but it is necessary to do all of this if we want to practice Yoga Chikitsa. Otherwise please remember it is merely Yogopathy, the suppression of symptoms though Yoga and not Yoga Chikitsa!

Recommended reading:

1. Bhavanani Ananda Balayogi. *A Primer of Yoga Theory*. Dhivyananda Creations, Iyyanar Nagar, Pondicherry. 2008.
2. Bhavanani Ananda Balayogi. *Yoga Therapy Notes*. Dhivyananda Creations, Iyyanar Nagar, Pondicherry. 2007
3. Burt VL, Cutler JA, Higgins M, et al. Trends in the prevalence, awareness, treatment and control of hypertension in the adult US population: Data from Health Examination Surveys 1960-1991. *Hypertension*. 1995;26:60-69.
4. Chobanian AV, Bakris GL, Black HR, 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;289:2560-2572.
5. Datey KK, Deshmukh SN, Dalvi CP, Vinekar SL. "Shavasana": A yogic exercise in the management of hypertension. *Angiology* 1969; 20: 325-333.
6. Kastarinen MJ, Puska PM, Korhonen MH, et al. Non-pharmacological treatment of hypertension in primary health care: A 2-year open randomized controlled trial of lifestyle intervention against hypertension in eastern Finland. *J Hypertens*. 2002;20:2505-2512.
7. Madanmohan, Rai UC, Balavittal V, Thombre DP, Swami Gitananda. Cardiorespiratory changes during savitri pranayama and shavasana. *The Yoga Review* 1983; 3(1): 25-34.
8. Meena Ramanathan. *Thiruvalluvar on Yogic Concepts*. Aarogya Yogalayam, Venkateswara Nagar, Saram, Pondicherry. 2007
9. Murugesan R, Govindarajulu N, Bera TK. Effect of selected yogic practices on the management of hypertension. *Indian J Physiol Pharmacol* 2000; 44(2): 207-210.
10. Norman M. Kaplan. Lifestyle modifications for prevention and treatment of hypertension. *J Clin Hypertens* 6(12):716-719, 2004.
11. Patel C, North WR. Randomised controlled trial of yoga and biofeedback in management of hypertension. *Lancet* 1975; 19(2): 93-95.

12. Sacks FM, Svetkey LP, Vollmer WM, et al. Effects on blood pressure of reduced dietary sodium and the DIETARY Approaches to Stop Hypertension (DASH) diet. *N Engl J Med.* 2001; 344:3-10.
13. Selvamuthy W, Sridharan K, Ray US et al. A new physiological approach to control of essential hypertension. *Indian J Physiol Pharmacol* 1998; 42(2): 205-213.
14. Swarupananda Swami. *Srimad Bhagavad Gita*. Advaita Ashrama, Kolkata. 2007
15. Vijayalakshmi P., Madanmohan, Bhavanani A. B., Asmita Patil and Kumar Babu P. Modulation of stress induced by isometric handgrip test in hypertensive patients following yogic relaxation training. *Indian J Physiol Pharmacol* 2004; 48 (1) : 59-64
16. Weinberger MH, Fineberg NS, Fineberg SE, et al. Salt sensitivity, pulse pressure, and death in normal and hypertensive humans. *Hypertension.* 2001; 37:429-432.
17. Whelton PK, He J, Appel LJ, et al., for the National High Blood Pressure Education Program Coordinating Committee. Primary prevention of hypertension. Clinical and public health advisory from the National High Blood Pressure Education Program. *JAMA.* 2002;288:1882-1888.
18. Working Group on Primary Prevention of Hypertension. Report of the National High Blood Pressure Education Program Working Group on Primary Prevention of Hypertension. *Arch Intern Med.* 1993;153:186-208.