

# A Non-Pharmacological Approach to Hypertension through Ayurveda; The Traditional Indian Medicine

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## Abstract

Worldwide, raised blood pressure is estimated to cause 7.5 million deaths, about 12.8% of the total of all deaths. This accounts for 57 million disability adjusted life years (DALYS) or 3.7% of total DALYS. Variations in the levels of risk factors for hypertension, such as high sodium intake, low potassium intake, obesity, alcohol consumption, physical inactivity and unhealthy diet, may explain some of the regional heterogeneity in hypertension prevalence.

Non pharmacological approach in Hypertension management is gaining acceptance as the elevated blood pressure has emerged as a metabolic disorder affecting the masses with varied etiology. This includes diet, lifestyle modifications and different methods to boost mental health. Even though poor mental status as a cause of hypertension has not been fully established, deteriorating mental health has emerged as a co-morbidity in chronic hypertensive cases. Hence different psychological approaches like behavioral cognitive techniques, biofeedback, relaxation methods are being practiced extensively [1-4].

In this paper, we will focus on the non pharmacological remedies in Traditional Indian Medicine, Ayurveda with special reference to a treatment modality named Satvavajaya and how the same has established its effectiveness in Hypertension management.

Ayurveda, though its importance as a treatment method is widely accepted, is basically a way of living practiced over generations in India. There are three different treatment modalities mentioned- that is treatment through worship (Daivavyapashraya), through medicine and therapies (Yuktivyapashraya) and treating the mind through counseling (Satvavajaya) [5]. The third modality is gaining importance in the current scenario as the so emerged lifestyle disorders have an inevitable link with stressful ways of living. This branch of treatment incorporates counseling a patient and correcting the thoughts, helps him to overcome fear and spiritual counseling. The same methods can be correlated to modern Psychotherapy techniques deployed. Therefore, this paper attempts to give a brief review on the various counseling techniques practiced among Ayurveda Physicians and to throw light to the code of conduct mentioned in the Ayurveda scriptures explaining how to live a life happy and healthy.

**Keywords:** Ayurveda • Daivavyapashraya • Satvavajaya • Hypertension

## Introduction

Hypertension, also known as high or raised blood pressure, is a condition in which the blood vessels have persistently raised pressure. Hypertension is classified as primary and secondary, the latter considered as a correctable form, especially in patients under age 30 or those who become hypertensive after 55. Hence, non-pharmacological methods to reduce the elevated blood pressure has been looked out as more feasible option among the masses. Adding on, psychological approaches to manage hypertension is gaining prevalence and is best sought among the non-pharmacological modalities. The existing practice of Pharmacological management has left high incidence on drug dependency states in individuals and the adverse drug reactions have added on to the morbid conditions. This difficult situation has made the world to look out for diverse options and thus non- pharmacological methods gained momentum in the recent past.

This paper aims to bring out a treatment modality well established and practiced in traditional Indian medicine, Ayurveda which involves behavioural techniques; thereby rendering cost effective and long-lasting effects on the patients practiced and can be adopted as the apt methodology needed at the time.

## Pathophysiology of Hypertension and role of mental components

Mental state as a determinant in considering the risk factors for

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hypertension has evolved as a trend in modern day practice. The impact of stress on the development of hypertension is believed to involve a sympathetic nervous system response, where in there is release of catecholamines leading to increased heart rate, cardiac output, and BP. Studies advocate that sympathetic responses to acute stress are well documented, but the process by which stress contributes to sustained BP elevation over time is not well understood. However, it may be considered that repeated activation of this system, failure to return to resting levels following stressful events, failure to habituate to repeated stressors of the same type, or some combination of them are believed to be responsible for the development of hypertension. Evidences also bolster the fact that hypertension increases the morbidity in psychiatric patients- as the common sympathetic pathway seems to mediate both essential hypertension and anxiety disorders [6-8].

Hence it can be concluded that the enhanced sympathetic response triggered due to a troubled mind can initiate a cascade of events and result in elevated BP or at the least a major risk factor of concern.

## Ayurveda concept of mind and body- its interrelation

Conceptually, Ayurveda scriptures have mentioned mind as one among the sense organs, but having superior characteristics than other senses. The same has an inevitable relation with soul, however, is different from soul. Mind is defined as that sense organ which experiences feelings of a person like happiness, sorrow, anger, etc. In Ayurveda scriptures, the mind is considered as equal to the body and has defined a healthy person to have complete physical, mental and spiritual health and not mere absence of disease; the definition on a similar note has been adopted by World Health Organization [9,10].

Functions of mind mentioned are the thoughts in various forms like chintya(thinking), vicharya(analyzing between good or bad), uhya(guessing), dheya(concentration), sankalpa(discrimination between good and bad), etc. Therefore, mental components are the decision makers in forming the behavior of a person [11].

It is an undebatable fact that there is a mental component which analyzes the information received through each sense organs. Thus all senses are interlinked with mind to interpret information gathered. This phenomenon is detailed in Indian epic Mahabharatha, where it is explained that a person who is overwhelmed with grief will not be able to see objects because he does not pay attention to what he sees, his thoughts are blocked by sorrow. This is the same reason why people become depressed with denigrating physical health and a poor mental state makes a person vulnerable to disorders. The thought processes determine the actions of an individual. Hence knowledge of mental components and their modulation is absolutely necessary to drive a person in the path of happiness.

## Epidemiology and Prevalence

An estimated 1.13 billion people worldwide have hypertension, most (two-thirds) living in low- and middle-income countries. In 2015, 1 in 4 men and 1 in 5 women had hypertension. Fewer than 1 in 5 people with hypertension have the problem under control. Hypertension is a major cause of premature death worldwide [12].

### Ayurveda treatment modality- Satvavajaya

Ayurveda, being a life science deals with treatment of diseases, prevention of diseases and health promotion. The treatment modalities are of 3 types namely, daivavyapashraya, yukthivyapashraya and satvavajaya. Among these, the first treatment method is the curative mode done by prayers, different modes of worship, etc. The second modality involves treatment by medicines, therapy, detoxification methods and surgical interventions. The third modality is the psychotherapy or else, the treatment of the mind. The word satvavajayacan be split up as satva, means mind and avajaya means to win over, that is, the win over the mind. In short, it is taking off the mind from negative thoughts and impulses. The three best medicines for mind has been described in authentic textbooks as-Dhi(correction of thoughts), Dhairya(Boosting confidence) and Atmadivijnana (upliftment of soul through spiritual knowledge) [13,14].

Practically there are five broad components of Satvavajaya Chikitsa-Gyan, Vigyan, Dhairya, SmritiandSamadhi [15] .

- Gyana–promotion of the spiritual knowledge.
- Spirit or soul is the inner consciousness of an individual. It is known that mind is always wavery in nature and gets provoked by sense organs. Soul, the inner consciousness is stable. This component aims to bring calmness to mind by helping to focus mind to soul and distract from disturbing or provoking thoughts.
- Vigyan–promotion of practical and scientific knowledge.
- The need to understand mind as a part of body and how mind reacts to different situations has been detailed in scriptures. Thus, through this method, an insight about individual's thoughts, perception and emotional responses can be elicited, studied and corrected.
- Dhairya –Development of patience or will power
- This methodology can be utilized to keep a person focused to his goals, avoiding abrupt reactions, boosting his self esteem and thus impart skills to keep the mind strong.
- Smriti -To promote positive memory
- Retaining and recalling events, viz. memory is a highly developed cognitive skill in a human being. The causative factor for majority of psychological distress is the retaining of bad or unpleasant situations of life. This methodology attempts an individual to forgo negative memories and retain positive memories of an individual and thus plays a major role in conveying positive health.
- Samadhi – Refers to development of concentration skills by developing focusing mind

- The aforesaid methods help in correction of mental parameters. However, it is pivotal to retain the effect of counseling and make the treatment permanent and long lasting. For this, the subjected individual should train himself to keep his mind focused and retain the corrective measures. This makes him emotionally independent and strong. The techniques adopted include yoga, meditation, etc [15].

### Yoga as a psychological technique

Yoga, as a form of exercise is globally accepted but the role played in transforming one's mind is less known. Yoga, an adjuvant of Ayurveda has been built on philosophy with similar lines but is quite different from the science of life. Yoga focuses on attainment of liberation and helps to keep mind connected with soul and thus have an effective control over the mind. Patanjali's Yogasutra describes 8 limbs in yoga practice -yama, niyama, asana, pranayama, pratyahara, dharana, Dhyana, samadhi. Briefly these can be described as consecutive steps needed to attain liberation, or in other words, salvation. However, the same begins with abstinence or control the thought and actions, followed by observance of strict self -discipline. The third limb denotes postures of yoga which are commonly observed. Pranayama is another breathing technique which helps to control both the voluntary and involuntary functions. Studies have proven that even the sympathetic responses can be modulated by practicing this method. Hence, these have been advocated by Physicians even in systemic disorders. The last 4 methods help to arouse the inner consciousness and attain salvation. It is widely accepted that with practice of yoga, an individual is elevated to a different level of consciousness and can have a highly positive impact on physiological parameters.

### Lifestyle modification- according to Ayurveda

Ayurveda scriptures have deliberated about ways of living, a daily regimen to be followed, seasonal regimen and other parameters to live a long, healthy and happy life. Daily regimen include, waking up, detailing on personal hygiene measures, following routine in life, how to eat food, do's and don'ts during eating, sleeping habits, etc. Seasonal regimen include changes to be adopted in daily with seasonal changes to protect health and ward off seasonal diseases. There is also detailed description about the code of conduct or moral principles to be followed by an individual. These include avoid hurting others, practicing non- violence, patience, etc. In Ayurveda textbooks, there is also mention about term Achara Rasayan, which emphasizes the need and how to maintain mental hygiene- an inevitable factor for positive health. In the present scenario, these can be considered as lifestyle modifications to be adopted to maintain health.

## Modern Psychotherapeutic tools and Satvavajaya techniques

In principle, Satvavajaya is applicable in varying forms in all kinds of diseases, but more stressed in cases with psychological distress. In Satvavajaya, the psychotherapist attempts to know the state of these emotions causally associated to the illness in his patient and then develop strategies to replace the pathogenic emotions with the opposite ones.

- Cognitive Behavior Therapy vs Vijnana

Cited research work has documented Cognitive Behavior therapy can be correlated to Vijnana of Satvavajaya. Dr.Aaron.T.Beck has developed this mode of psychotherapy where the client and therapist work together to overcome difficulties by changing their thinking, behavior and emotional responses [16]. Vijnana is the method to impart true knowledge and remove cognition distortion.

The aforementioned paragraph has detailed how vijnana works in an individual. Both CBT and vijnana is one and the same, aiding a person's thought correction, changing emotional responses and modulating behavior in positive and healthy manner.

- EMDR vs Smrithi

EMDR(Eye movement Desensitization and Reprocessing) is a non traditional form of psychotherapy where the therapist tries to diminish negative feelings associated with memories of traumatic events.

It has been already mentioned that smrithi helps to deflect negative memories and retain positive memories in an individual. Thus both the methodologies help to create a positive mind in an individual and thus create happiness in an individual [17].

## Conclusion

There is a strong interrelationship between body and mind. Ayurveda purviews a human being as a wholesome unit and considers mind as an integral part of all physiological and pathological conditions. Thus Satvavajaya has proved its integrity in management of different psychological situations, psychosomatic diseases and systemic illness. Hence, in the current scenario where mental distress have evolved as a major risk factor deteriorating the health by hampering the physiological status of both body and mind; this method from Ayurveda-Satvavajaya can be adopted as a novel approach which can be practiced as well as the individual can get trained himself to keep his mind at peace. A healthy mind is a pre-requisite to live a happy life; as the ultimate aim of every individual is to seek happiness.

## Biography

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