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**Review Article** 

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# UNDERSTANDING HYPERTENSION ON AYURVEDIC PERSPECTIVE

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## **ABSTRACT**

Hypertension is a most common life style disorder. It is defined as blood pressure is more than 140/90 mm of Hg. It is also known as silent killer. Now-a-days prevalence rate of hypertension is increasing day-by-day due to rapid modernization and stressful life. Improper life style and unhealthy dietary habits plays an important role in the development of Hypertension. Hypertension is not described in any *Samhita's* and Grantha's. So, the exact co-relation is difficult to find out in *Ayurveda*. The disease can be explained on the basis of *Dosha*, *Dushya*, and *Strotas*. *Acharya Charaka*, has explained in *Charaka Sutrasthana-18*, if disease is unknown, the physician should try to

understand the nature of the disease through *Dosha*, *Dushya*, *Samprapti*, then the treatment is given according to its nature. In modern medicine, lots of drugs are available for controlling blood pressure but they have some side effect. Hence, people are looking towards *Ayurvedic* treatment. In *Ayurveda*, treatment is based on *Ayurvedic* principle, proper *Dincharya*, *Ritucharya*, *Pathya-Apathya*, life style management, *Shodhan* and *Shaman Chikitsa* that helps to decrease hypertension and its complication.

**KEYWORD:** Hypertension, Essential hypertension, Diet, Lifestyle disease.

## INTRODUCTION

Hypertension is commonest chronic non communicable disorder found all over world. It is also called as silent killer because in this patient remain mostly asymptomatic. But on the other hand it causes target organ damage; it is also a major risk factor for Coronary vascular diseases like stroke and myocardial infarction. It is a global health problem affecting the people of different ethnicity & ages around the world. In modern medicine the aim of the

treatment for hypertension is to prevent the risk of coronary heart disease & cardiovascular disease. Hypertension is not mentioned in is, but on the basis of principle we can understand the (ethiopathogenesis) of Hypertension & according to that we can treat the disease. Hypertension is chronic non communicable disease in which the pressure exerted by the blood on the wall of the artery is elevated. It is classified as Primary Hypertension & Secondary hypertension. 90-95% of cases are categorized as primary hypertension which is defined as hypertension without any obvious cause. 5-10% of cases are categorized as secondary hypertension of which causes are identified as Chronic Kidney diseases, Pheochromocytoma & some endocrine diseases.

- 1. Hypertension is rarely accompanied by any symptoms. But in some cases it is reported with headache, vertigo, lightheadedness, epistaxis, sweating, excessive palpitation, tinnitus, & altered vision or fainting.
- 2. The diagnosis of hypertension is made at routine examination or when complication arises. In modern medicine there are lots of antihypertensive drugs available which control blood pressure & prevent the risk of cardiovascular diseases & coronary heart diseases by 30% & 20% respectively. So it is not advisable to start antihypertensive drugs in newly diagnosed and young patients of hypertension.

In *Ayurveda*, exact description of hypertension is not given. Hence it is difficult to find out exact references of hypertension.But in *Charaka Samhita Sutrasthan*, *Acharya Charaka* has explained that if it is not possible to make the diagnosis of any disease then physician should try to understand the nature of disease and make the diagnosis and treatment according to disease.<sup>[2]</sup>

In modern era, many *Ayurvedic* scholars have considered hypertension under the heading of various diseases such as *Dhamani-Prartichaya*, *Raktagatavata*, *Siragatvata*, *Raktapradoshajvyadhi and Raktachapa-adhikya*.

3. In such cases we can give management for HT. Hypertension is a disease which is not mentioned as it is in text, but on the basis of its sign & symptoms we can include it in Ayurvedic Ayurvedic Samaprapti Vata, Vata Pitta Kapha Vata Shamana Chikitsa Shodhana Chikitsa Ayurvedic Ayurvedic Doshaja Nanatmaja vikara Vataja-nanatmaja vikara Hridravata, Shiroruk, Lalat bhed, Vakshatod, Vakshoparodha, Bhrama, Vepathu Pittaja nanatmaja vikara- Atisweda, Tamapravesha, Nasagata Raktapitta, Kaphaja nanatmaja vikara- Sthoulya, Dhamanipratichaya, Hridayopalepa Shodhana Shamana

chikitsa like(tachycardia) (headache) (frontal headache) (petcoralgia) (chest tightness) (giddiness) (tremor

#### AIM AND OBJECTIVE

To study the role of *Yoga*, *Pranayama*, meditation, diet and life style management in hypertension according to *Ayurveda* and modern science which is helpful for the management and prevention of hypertension. All the references are collected from classical text of *Ayurveda*, modern text books and related websites.

**Table 1: Types and Classification.** 

Category	Systolic BP	Diastolic BP
Optimal	<120 mm of Hg	<80 mm of Hg
Normal	<130 mm of Hg	<85 mm of Hg
High normal	130-139 mm of Hg	85-89 mm of Hg

**Table 2: Hypertension grade.** 

Category	Systolic	Diastolic
Grade(Mild)	140-159	90-99
Grade(Moderate)	160-179	100-109
Grade(Severe)	>180	>110

## **Factors Affecting Blood Pressure-These include**

- 1. Vessel Elasticity
- 2. Blood Volume
- 3. Cardiac output
- 4. Peripheral resistance

## Hetu/Causative factors of hypertension<sup>[8]</sup>

Hypertension is not described in any *Samhitas*. But causes of hypertension are described in modern medicine; hence it can be analyzed according to *Ayurveda*.

- 1. Genetic factors (*Beejdoshas*)
- 2. Environment factors
- 3. Age: Old age-predominance of Vata Dosha
- 4. Excessive intake of salt
- 5. Obesity
- 6. Alcohol intake
- 7. Physical activity
- 8. Psychological factor's (Manasic Bhav).

## Ayurvedic perspective

Description of Hridaya and processes of Rasa Vikshep- ana (circulation) by Vyana Vayu is helpful to understand the disease. Though the ex- act nomenclature of the disease to some extent is controversial, the signs and symptoms of the disease can be understood in terms of Dosha, Dushya, Strotasa, etc. Looking at hypertension from this perspective, we can assume that vitiated Vata Dosha is the main cause of the disease, as the Dhatu Gati (Rasa Gati) or Vikshepa is achieved by Vayu itself. Pitta and Kapha complement the effect of vitiated Vata and support the progress of the disease with Rasa, Rakta (whole blood) being the main mediator of vitiation. This suggests the involvement of Tridosha in hypertension. Inference of previous research work done is that hypertension is nothing but a 'Vata Pradhan Tridoshaja Vyadhi', be greatly influenced by Mana. Therefore it may be considered as Sharir and Manas Roga (Ubhayashrita Vyadhi). Sharir and Satva (Mana) have been designated as the habitats of Vyadhi by Acharya Charaka.

Academicians of Ayurveda suggested different names to demonstrate the phenomenon - like RaktaGata Vata Shiragata Vata, Avritta Vata, Dhamani Prapurnata, Rakta Vriddhi), Rakta Vikshepa, Rakta Chapa, Rakta Sampida, Vyana Bala, Dhamanipratichaya, Rasa Bhara, Rudhira Mada, Rakta Vata.

## Factors involved in hypertension

## **Dosha**

**Prana vayu:** In modern science, the functions of nervous system have been described similar to description of the Prakrita Prana Vayu. 'Hridaya Dhruka; (i.e. Dharana of Heart) the function of Prana Vayu can be correlated with the vagal inhibition of nervous system.16 In addition to this, vasomotor center controls the blood pressure by autonomic nervous system; similarly Prana Vayu also controls the regulation of blood pressure by controlling Vyana Vayu. So pathology of Prana Vayu can cause abnormality of heart as well as vessels.

**Vyana vayu:** Vyan Vayu is said to be responsible for various kinds of movements in the body. With the help of Vyan Vayu, heart contracts and propels blood (Rasa Rakta Dhatu) continuously all over the body. So, it suggests the involvement of Vyana Vayu in regulation of blood pressure.

**Samana vayu**: According to Sharangadhara after the digestion process 'Samana Vayu' helps in the transportation of Rasa into the heart and from there it circulates in the whole body. Thus Samana Vayu has an important role in the circulation.

**Apana vayu:** Vitiation of Apana vayu hampers the excretion of the Purisha and Mutra affecting homeostasis which may affect blood pressure. From the above fact it can be concluded that Apana vayu also plays a role in regulation of normal blood pressure.<sup>[19]</sup>

**Avalambaka kapha:** Normal rhythm, contractility, and tone of cardiac muscles can be correlated with functions of Avalambaka Kapha. Thus; it keeps heart in a healthy state and enhances its continuous pumping capacity.

**Dushya:** In circulatory system Aahar rasa, Rasa Dhatu and Rakta Dhatu are the entities which circulate all over the body. In the context of blood pressure Rasavaha and Raktavaha Srotasas are important as they are related to 'Rasa-Rakta Samvahana'. Annavaha Strotas get vitiated due to untimely intake of large quantity of un- wholesome food and impairment of Agni (digestive capacity).

Rasa dhatu: Acharya Charaka in Vima- nasthana described various factors respon- sible for Rasavaha Strotas Dushti, viz. excessive intake of Guru (heavy), Shit (cold), excessively unctuous food, and constant worry. Rakta Dhatu- Raktavaha Strotas get viti- ated due to intake of food and drinks which are irritant, unctuous, hot and liquid; excessive exposure to sunlight and fire.

Agni: Agni is an important factor in the pathogenesis of all the diseases. Agni Dushti occurs at two levels Jatharagni Mandya and Dhatwagni Mandya. Atimatrashana (excessive diet), Vir- uddhashana (intake of food having opposite properties), and Adhyashana (intake before the digestion of previous food) are the factors which cause Jatharagni Man- dya. It will affect all other Agni viz. SaptaDhatvagni and Panchamahabhutagni. Jatharagni Mandya will cause Ama formation which results in Strotorodha and vitiation of all Doshas. It will ultimately increase peripheral resistance and can lead to hypertension. Atherosclerotic changes in vessels can be an outcome of chronic Agnimandya and Ama. Acharya Charaka has already described DhamaniPratichaya as one of Nanatmyaja disease of Kapha dosha.

Samprapti (Pathogenesis of hypertension): Most of the mechanisms associated with secondary hypertension are crystal clear and completely understood. How- ever, those associated with essential hypertension are far less understood. The pathogenesis of hypertension takes place at both physical and psychic level one at a time or simultaneously depending upon the Dosha-Dushya Sammurchhana. Ag nidushti results in Ama formation and sub- sequent Dhatudushti (Rasa and Rakta). This leads to KhaVaigunya i.e. obstructive pathology in channels. The Ama production results into Strotorodha (obstruction) and thus partially blocks the normal Rasa- Rakta circulation which further vitiates Vyana Vayu. This obstructed Vyana Vayu leads to forcible blood flow in the blood vessels causing increased resistance, thereby increasing blood pressure.

Chikitsa (Treatment): Treatment of hy- pertension should be planned according to Dosha and Dushya involved in pathogene- sis. Manasa Bhavas like Chinta, Krodha, Bhaya, etc., plays an important role in the pathogenesis, progression, and prognosis of the disease, and also have effect on the response to the treatment. Hence, the type - of therapy recommended should be one that can pacify these disturbed Manasika Bhavas. Panchakarma: Abhyanga (Massage) – Sarvanga Abhangya with specially for- mulated oils helps to increase elasticity and flexibility. It correct and enhance the blood flow in healthy manners.

- a. Vaman and Virechan (Emesis and Pur- gative therapy):— If the patient is having Uttam Bala and having mild or moderate type of hypertension without any other complications then Sho- dhana procedures like Vaman, Virechan can be advised according to Dosha Pradhanya.
- **b. Basti** (**Medicated enema**):— Basti ther apy is specially designed for the Vata disorders. It is also called as Ardha Chikitsa by stalwart Acharyas. According to Dosha Dushti and Rugna Bala; Karma, Kala or Yoga Basti can be advocated.
- c. Diet:- Dietary modification is very important to prevent the development of hypertension or potentially combat and re duce high blood pressure. Lowering sodium intake (especially from table salt) reduces excessive water retention, which helps maintain normal blood pressure. Excessive use of sodium chloride is toxic and damaging to arteries and other tissues, which may initiate atherosclerosis and lead to hypertension. Adopting a high potassium diet helps rid the renal system of ex- cess sodium and restore sodium/potassium balance. Acharya Charaka has also con- sidered Lavana as a substance not to be used in excessive quantity for longer duration. Additional dietary changes benefi- cial for reducing blood pressure include adopting the diet which is rich in fruits,

vegetables, whole grains and low-fat dairy products, reducing consumption of refined sugar and heavily processed food, reducing caffeine intake, and limiting alcohol consumption.

d. Yoga:- Stress reduction from practicing meditation, yoga, and other mind-body relaxation techniques can lower blood pressure.28 Yoga is formulated for many reasons and the health restoration is one of them. Shavasana, Sukhasana Dhanu- rasana, Makarasana, Vajrasan, along with regular practice of Pranayama are found to be very useful for lowering blood pressure in normal as well as hypertensive individ- uals if performed accurately and adopted as a lifestyle. The ultimate aim of Pranayama and Yogic techniques is to control Prana. This target is difficult to achieve, but mental peace and relaxation thus achieved could be used as a therapeutic tool.

## **CONCLUSION**

It has been found that the percentage of hypertensive patients is rising sharply in spite of number of antihypertensive drugs in modern medicine. Human race today is looking towards Ayurveda in a search of an ideal and safe treatment. Hence to get the perfect management of hypertension without any side effects is a need of pre- sent era. In Ayurveda equilibrium of Doshas, Dhatus, Malas and Agni are con- sidered as healthy state of an individual. In nutshell we can say that while observing hypertension through Ayurvedic spectacle one or more of the following three possi- bilities should be considered.

- 1. Pathophysiological changes in the form of vitiation of Dosha(Vata, Pitta and Kapha), Dhatu and Mala Dusht
- 2. Psychological changes i.e. disturbances at the level of Mana (Manovaha Strotas Vikara).
- 3. Structural changes as complications of long term hypertension on various or- gans like heart, blood vessels, kidney etc. After thorough study of literature and fun- damentals in both Ayurveda and Modern medicine, it is concluded that Ayurvedic approach to treat a disease according to its Samprapti (pathogenesis) is very practical and should not be overlooked. This review of hypertension showed that the disease can be well managed by following Pathya- Apathyaas mentioned in Ayurveda (avoid- ance of the etiological factor). Considering detailed conceptual part we can definitely say that Ayurveda describes appropriate lifestyle and diet management called as Aahar and Vihar for maintaining homeo- stasis and thereby preventing hypertension. Proper medication as per Ayurvedic guidelines (along with proper Aahar, Vihar and Yoga) will definitely control blood pressure without any untoward effects. Additional benefit of Ayurvedic manage-

ment is absence of hazardous effects which is very important in view of the global acceptance of Ayurveda.

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