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HYPERTENSION - AN AYURVEDIC PERSPECTIVE

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ABSTRACT

Over the past three decades, a scientific and technological revolution has taken place. Since the Because of growing industrialization, people's lives are becoming more stressful. Consequently, the hypertension is one of the common ailments that practitioners have seen. approximately 26.4% of the planet in 2000, hypertension was predicted to affect 29.2% of adult population by 2025. India is known as the world's epicentre of hypertension. These days, lifestyle disorders are not only more prevalent but also impact younger groups. Hence, rather than being 40 or older, the population at risk may now be 30 or younger. Having high blood pressure due to a number of factors, including stress, obesity, genetics, and an excessive intake of salt in the diet ageing, too. We are all aware that high blood pressure is referred to as a silent killer because it rarely causes symptoms prior to harming the kidney, heart, or brain. Even though there are several effective antihypertensive medications on the market today, none of them are without side effects. *Ayurveda* places a heavy emphasis on maintaining health and living a healthy lifestyle a manner of living. There is no description of a single condition that can resemble any other in *Ayurveda* with high

blood pressure According to *Ayurvedic* principles, if a patient has an undiagnosed illness, the doctor should make an effort to comprehend the disease's nature through *Dosha*, *Dushya*, and *Samprapti* then should start the therapy. Therefore, it becomes our top priority to fully comprehend hypertension from an *Ayurvedic* perspective. This study makes a sincere effort to comprehend hypertension from the perspective of *ayurveda*, which will be useful for both therapeutic and preventive purpose.

KEYWORDS: High Blood Pressure, Lifestyle disorders, *Ucchraktachapa*, Silent killer.

INTRODUCTION

India is one of the countries that the World Health Organization (WHO) predicts would have the majority of them in the near future, lifestyle disorders. Many factors contribute to hypertension such as anxiety, obesity, genetics, and excessive consuming salt in your diet and becoming older. Due to this increased pressure on heart, the pressure exerted on vessels supplying different body tissues and organs gets increased and can damage respective organs. It is an early stage of pathogenesis and a risk factor for the development of diseases affecting organs like heart, brain, kidney etc. Many people with hypertension stay undiagnosed for long period or until got diagnosed incidentally, therefore it can be considered as a silent killer. An estimated 1.13 billion people worldwide are suffering from Hypertension, therefore normalizing the abnormally raised blood pressure is a challenging task to be considered. In *Ayurveda*, systemic arterial hypertension can be understood on the basis of involvement of vitiated *Doshas* where there is the involvement of *Vata* and *Pitta* predominant *Tridosha*, which hampers the flow of these *Doshas* in respective *Srotasa* (micro-channels)' The concept of *Avarana* (occlusion in the functioning of *Dosha* in normal state) gives a better understanding of Hypertension which should be considered for the better outcome of treating the disease from *Ayurvedic* perspective. Therefore, here an attempt is made, to understand Hypertension from both modern and *Ayurvedic* concepts and to discuss the management of the condition from *Ayurvedic* point of view.

AIMS AND OBJECTIVE

In order to understand hypertension in terms of *Ayurveda*, it is necessary to identify the factors involved in hypertension from an *Ayurvedic* perspective. Sincere efforts have been made in this study work to comprehend hypertension in terms of *Ayurveda*, which will be helpful for both treatment and preventative intent.

MATERIAL AND METHODS

To research hypertension-like symptoms and signs from an *Ayurvedic* perspective, traditional books on *Ayurveda*, contemporary fiction, scientific updates and available research internet and other sources of information were analysis and search.

Literature Review

Blood pressure is the term used to describe the pressure that the heart's forceful contractions place on the artery walls. Adults with hypertension have greater blood pressure more than 90 mm Hg of diastolic or 140 mm Hg of systolic on three different values that were recorded several weeks apart.

Two different types of hypertensions exist

1. Essential or primary hypertension (97-98%) lacks a known underlying cause but seems to be the outcome of the interaction of environmental and genetic factors that are complex.
2. Secondary hypertension (2–3%) is caused by a certain underlying mechanism, frequently one involving the kidneys or the endocrine system.

Factors affecting blood pressure

These include 1. Vessel Elasticity 2. Blood Vol 3. Cardiac Output 4. Peripheral Resistance. Peripheral resistance depends upon blood viscosity, vessel diameter and vessel length. Several other factors and conditions may play a role in development of hypertension such as smoking, overweight or obesity, lack of physical activity, excessive salt intake, alcohol consumption, stress and family history of high blood pressure.

Our bodies and minds are intimately intertwined. It is crucial to treat both the psychological issue and the medical condition when a psychological element affects a condition issue. Treatment should be arranged accordingly if there is stress-related hypertension. According to *Ayurveda*, *Vata* is regulator & stimulator of *Mana* (mind). One should not disregard this fundamental tenet to combat hypertension.

Ayurvedic perspective

Vyana Vayu's description of *Hridaya* and the workings of *Rasa Vikshepana* (circulation) is useful in understanding the illness. Despite the disease's exact nomenclature being to some the disease's breadth is debatable, although the symptoms can be grasped in *Dosh*a, *Dushya, Strotasa,* and other similar words. From this perspective, we might assume that vitiated *Vata*

is the cause of hypertension. *Dosha* is the primary factor causing the illness, as the *Vikshepa* or *Dhatu Gati (Rasa Gati)* is *Vayu* itself has achieved this.

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 Pradhana Tridoshaja Vyadhi'*, be greatly influenced by *Mana*. Therefore, it may be considered as *Sharira* and *Manasa Roga* (*Ubhayashrita Vyadhi). Sharira* 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 (*Y.N. Upadhyaya – 1950), *Shiragata Vata* (Acharya G.N. Chaturvedi – 1962), *Avritta Vata* (Acharya R.K. Sharma – 1966), *Dhamani Prapurnata* (Acharya A.D. Athavale – 1977), *Rakta Vriddhi* (Acharya G.N. Chaturvedi – 1981), *Rakta Vikshepa* (Shukla J.P.- 1954), *Rakta Chapa* (Ravani. & Mahaishkar U.B. 1967), *Rakta Sampida* (Pandey S.B. 1972), *Vyana Bala* (Triguna B. 1974), *Dhamanipratichaya* (Athawale A.D.), *Rasa Bhara* (Athawale T.S. 1979), *Rudhira Mada* (Dwivedi V.N. 1991), *RaktaVata* (Sharma P.V. 1993).[15] This list goes on with different concept by different *Vaidyas* and it creates confusion for upcoming *Ayurvedic* generation regarding causative factors, pathophysiology, complications and exact treatment modalities of hypertension.

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 centre 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.

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 *Aahara 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 Strotasa* get vitiated due to untimely intake of large quantity of un- wholesome food and impairment of *Agni* (digestive capacity).

Rasa Dhatu- Acharya Charaka in *Vimanasthana* described various factors responsible for *Rasavaha Strotas Dushti*, viz. excessive intake of *Guru* (heavy), *Sheeta* (cold), excessively unctuous food, and constant worry.

Rakta Dhatu- Raktavaha Strotas get vitiated 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), *Viruddhashana* (intake of food having oppo- site properties), and *Adhyashana* (intake before the digestion of previous food) are the factors which cause *Jatharagni Mandya*. 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 *Dhamani Pratichaya* as one of *Nanatmyaja* disease of *Kapha dosha*.

Mana: Ayurveda views *Pradnyaparadha* and *Asatmendriyartha Samyoga* as the fundamental causes of all illnesses, including show that the mind is involved. *Manasa Bhavas* such as *Chinta* (concern), *Krodha* (anxiety), *Bhaya* (fear), etc. play a part in the development, evolution, and disease prognosis as well as reaction to the process of curing the ailment. This fact demonstrates that *Mana* is also involved in the sickness and hypertension ought to be regarded as psychosomatic. The field of modern medicine also takes into participation of the mind as a cause to treat hypertension.

***Samprapti* (Pathogenesis of hypertension)**

Most of the underlying causes of secondary hypertension are well-known and fully recognised. But those connected to essential hypertension are far less well known. The Hypertension's aetiology occurs at first stage of both the physical and psychic at a Depending on the situation, either at the same *Dosha-Dushya Sammurchhan*a. *Agnidushti* causes the production of *Ama* and, subsequently, *Dhatudushti* (*Rasa* and *Rakta*). *KhaVaigunya*, or obstructive pathology in channels, is the result of this. The regular *Rasa-Rakta* circulation is partially blocked by the *Strotorodha* (obstruction) caused by *Ama* production, which further vitiates it *Vayu Vyana*. This prevented *Vayu* from moving causes the blood to flow forcibly blood pressure rises as a result of increased resistance in the vessels.

Samprapti Ghataka

***Dosha* -** *Vata (Vyana Vayu) Pradhana Tridosa*

Dushya *– Rasa and Rakta*

Srotasa *– Rasa, Rakta and Manovaha*

Srotodushti *– Sanga, Vimarga gamana*

Udbhava sthana *– Amasaya samutthana*

Agni *– Jatharagni Vaisamya*

Adhisthana *– Sarva-srotas*

Sancarasthana *– Dhamani*

Svarupa *– Chirakari*

Prabhava *– Kastasadhya*

***Chikitsa* (Treatment)**

The *Dosha* and *Dushya* involved in the pathogenesis should be considered when planning a treatment strategy for hypertension. *Manasa Bhavas*, such as *Chinta, Krodha, Bhaya*, etc., are crucial to the progression, prognosis, and pathogenesis both the symptoms and the prognosis

response to the treatment. Therefore, the kind of suggested therapy should be one that can calm this unsettled *Manasika Bhavas*.

Panchkarma

Enhancing suppleness and flexibility with *abhyanga* (massage) with specifically formulated oils is called *sarvanga abhangya*. It improves and fixes the good blood circulation.

Virechana (therapeutic purgation**)** – This is an ideal cleanse to eliminate the metabolic toxins and provide lightness to the body. This is where blockages in the body cells and blood vessels are removed, which restores blood vascular health.

Vasti (medicated enemas) – *Vasti* is the cleansing of colon, which is the house of *Vata* energy (movement energy). Here, different type of *vasti*, oil enemas and decoction enemas are administered for balancing the nervous system.

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.

Diet

Dietary modification is very important to prevent the development of hypertension or potentially combat and reduce high blood pressure.

Reducing excessive water retention by consuming less sodium, especially from table salt, aids in maintaining normal blood pressure. Use of sodium chloride in excess is harmful artery damage, among other damages to tissues, this could start atherosclerosis and result in causes hypertension. Adopting a high potassium diet aids in removing excess sodium from the kidneys and restoring sodium/potassium balance. *Lavana* was similarly viewed by *Acharya Charaka* as a material that should not be consumed. Used for a longer period of time in excess. Other dietary modifications that are beneficial for lowering blood pressure include by consuming a diet high in fruit, healthful grains, vegetables, and low-fat dairy items, decreasing the use of refined decreasing sugar and highly processed food Limiting alcohol consumption and caffeine intake.

Yoga- Stress reduction from practicing meditation, *yoga*, and other mind-body relaxation techniques can lower blood pressure. *Yoga* is formulated for many reasons and the health restoration is one of them. *Shavasana, Sukhasana Dhanurasana, Makarasana, Vajrasan,*

along with regular practice of *Pranayama* are found to be very useful for lowering blood pressure in normal as well as hypertensive individuals if performed accurately and adopted as a lifestyle. The ultimate goal of *yoga* and *pranayama* practises, according to *Bruhadaranyaka* and *Chhandogya Upanishadas*, is to control *prana*. This aim is challenging to reach, but mental the resultant calm and relaxation could be employed as a tool for therapy. Patrick and Others in Britain have demonstrated that blood pressure is reduced by prayer and meditation pressure both in the short and long terms. This element may be crucial for coronary atherosclerosis primary prevention. On metabolic level it causes a decrease in various biochemical inducers and aggravators of atherogenesis. Also, Significant decline in cardiovascular risk factors, hypertension, dyslipidaemias and obesity have been reported by Patel et al in Britain using group meditation techniques, and in India by Mahajan et al in Delhi and Damodaran et al in Mumbai.

Other strategies effective at reducing blood pressure

These include losing weight and engaging in regular cardiovascular activities like jogging, brisk walking, etc. Losing weight lessens the load of resistance. Regular exercise has a positive impact on the vascular system, enhances blood flow, and lowers blood pressure and heart rate at rest. Stopping any type of cigarette consumption has also demonstrated to decrease blood pressure. The tar of smoke and the injurious components of the tobacco produce hardening of blood vessels (arteriosclerosis), plaque in the blood vessels, which can make narrowing of the inner diameter of blood vessels. Abstaining from cigarette smoking reduces the risks of stroke and heart attack associated with hypertension. Alcohol consumption can enhance the fat accumulation. Obese people often have hypertension (elevated blood pressure) because the additional blood vessels in their adipose tissue increase their total blood vessel length. Resistance to blood flow through a vessel is directly proportional to the length of the blood vessel. The longer a blood vessel, the greater is the resistance. An estimated 650 km (about 400 miles) of additional blood vessels develop for each extra kilogram (2.2 lb) of fat.

Drugs if BP is initially high (> 160/90) or unresponsive to lifestyle modifications.

a) Diuretics
b) Beta- blockers
c) ACE inhibitors
d) Calcium channel blockers

e) Alpha – blockers
f) Angiotensin II antagonists

CONCLUSION

Despite the availability of many antihypertensive medications, it has been discovered that the percentage of hypertension individuals is steadily increasing in contemporary medicine. today's human race is searching for answers by turning to *Ayurveda* an excellent and secure procedure. therefore, to obtain optimal hypertension management Without any adverse effects is a need from the past. In *Ayurveda*, the balance of *Doshas, Dhatus, Malas,* and *Agni* are seen as indicators of a person's health. In essence, we can say that while Through *Ayurvedic* spectacle, hypertension, One or more of the three following options should be taken into account.

1. Pathophysiological changes in the form of vitiation of *Dosha* (*Vata, Pitta* and *Kapha*), *Dhatu* and *Mala Dushti*.
2. Psychological changes i.e., disturbances at the level of *Mana* (*Manovaha Strotasa Vikara*).
3. Structural changes as complications of long-term hypertension on various organs like heart, blood vessels, kidney etc.

It has been determined after a thorough review of the literature and foundational concepts in both *Ayurveda* and Modern medicine that the *Ayurvedic* approach to treating a disease in accordance with its Pathogenesis (*Samprapti*) is highly useful and must not be ignored. Presented here of hypertension demonstrated that the condition can be effectively treated by adhering to the *Ayurvedic Pathya- Apathya* (avoidance of the etiological factor). Considering conceptual element in depth, we can surely assert that *Ayurveda* offers appropriate diet and lifestyle management are referred to as for preserving homeostasis and avoiding hypertension, use *Aahara* and *Vihara.*

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