

# Understanding of Essential Hypertension Through Ayurved

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## Abstract

*There is no clear mention of hypertension in the Ayurvedic Classics. From an Ayurvedic standpoint, a number of hypotheses have been put up to explain hypertension, but none of them can be officially recognized. By using Dosha, Dushya, and Sampatti, a doctor can attempt to determine the etiology of an illness in cases when the patient's symptoms are unclear, according to Ayurvedic law. According to Ayurveda, the participation of Vata pradhan Tridoshas in vitiated Doshas helps explain hypertension. The functioning of the different srotas of circulation is hampered by the Avarana of Vata Dosha by Pitta and Kapha, which is seen in the Rasa-Rakta Dhatus. Understanding hypertension fully from an Ayurvedic perspective has therefore been our top priority. Thus, in order to aid in both treatment and prevention, an attempt is made here to comprehend hypertension in terms of Ayurveda.*

## Keywords

*Hypertension, Ayurveda, Vata, Pitta, Kapha, Avarana*

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## 1. Introduction

People are having more stressful lives as a result of fast modernization and sedentary lifestyles. One of the most prevalent lifestyle disorders in the modern world is hypertension. Every fifth individual has high blood pressure. The latter half of adulthood is when most people develop it [1].

Numerous variables, including stress, obesity, genetics, excessive salt consumption, and others, can lead to hypertension. Because hypertension seldom shows signs before harming the kidney, brain, or heart, it is referred to as the silent killer [2]. The negative impacts of high blood pressure are increasing at an alarming rate. In India, hypertension is the cause of 57% of stroke fatalities and 24% of deaths from coronary heart disease (CHD) [3].

Although the Ayurvedic classics do not directly describe hypertension, Acharya Charaka states that in cases of unknown disease, the physician should attempt to determine the nature of the disease through Dosha, the site of manifestation, and etiological factors before beginning treatment. This suggests that hypertension may have existed from the beginning of life in the universe [4].

Therefore, in order to properly comprehend the condition and its Samprapti in order to plan its Samprapti Vighatanameva Chikitsa and avoid it, it is vital to examine numerous elements such as Dosha, Dhatu, involved Srotas, and their function in causation of hypertension.

### 1.1. Aims and Objectives

To determine the causes of hypertension from an Ayurvedic standpoint and to explain hypertension in terms of Ayurveda. This essay is a real attempt to comprehend hypertension from an Ayurvedic perspective, which will be helpful for both treatment and prevention.

## 2. Materials and Methods

This is based on conceptual study. Ayurveda Samhitas, modern literature, available research updates on internet and journals were searched, compiled, and analyzed.

### 2.1. Literature Review

The writings of Ayurveda make no explicit mention of hypertension. An Ayurvedic viewpoint on hypertension has given rise to a number of hypotheses, none of which can be accepted as a complete explanation. Numerous Ayurveda Research scholars have expressed their opinions and linked Hypertension with Raktagata vata, Uchcharaktachapa, Sonita dusti, Siragata Vata, Pittavrita vata, Dhamani Praticchaya and CCRAS has named it Vyanabala Vaishmya.

Acharya Charaka stated that whatever knowledge given in Charak Samhita is present everywhere and what is not mentioned in Charak Samhitas is not available elsewhere (CS.Si.12/54). According to Acharya Charaka, a doctor should use Dosha, Dushya, and Samprapti to attempt to determine the nature of an unknown sickness.

## 2.2. Concept of Blood Pressure in Ayurveda

### 2.2.1. Factors Regulating Normal Blood Pressure

Understanding blood pressure through the lens of Ayurveda requires taking into account the Vata dosha (Prana, Vyana), Sadhaka pitta, Avalambaka kapha, Dhatus such as Rasa and Rakta, the Srotas via which it passes, Hridaya, Oja, and Mana functions. Ayurvedic literature lacks a detailed description of the physiology of the heart, but the Bhela Samhita makes clear that the body receives Rakta from the Hridaya, which is carried by Dasha dhamanis. Four Dhamanis supply the superior part of the body, two go obliquely, and four Dhamanis supply the inferior part of the body, nourishing all the Dhatus. It is also certain that Rakta returned to Hridaya via Siras [5].

Charak explains in detail how Vyana vata distributes and consistently draws blood from the heart. Thus, it is possible to state that the systolic since vyana vata is located in the heart, it controls the blood pressure reached during cardiac contractions [6–7]. Its role is Gati Prasarana Akunchana.

The sympathetic and parasympathetic branches of the autonomic nervous system, which originate in the brain, regulate the impulses produced by the S.A. node, or the heart's pacemaker. The heart contracts during systole because of these impulses. Situated in the Moordha (Brain) is the Prana Vata. Similar to Hridaya Dharana, Buddhi, Dhamani Dharana, Chitta, and Indriya Dharana, Prana Vayu carries out these functions. Here Hridaya dharana can be understood as it controls the Hridaya. That means that neural stimulation from brain to heart is carried out by Prana vayu [8]. In this, it can be understood that neural mechanism for blood circulation is controlled by the Vata.

### 2.2.2. Peripheral Resistance

At this point, the heart reaches the diastole when its muscles rest. Blood is solely under pressure from arteries, which are the heart's tiny chamber structures; the heart is not actively pushing against this. The blood artery and heart structures' resistance are measured by the diastolic blood pressure. Therefore, diastolic blood pressure is determined by peripheral resistance. Avalambaka Kapha is the domain for measuring diastolic blood pressure since Kapha is responsible for preserving the structural integrity of bodily organs. The diameter and suppleness of blood arteries, which are under the domain of Kapha, have a major impact on peripheral resistance [9].

### 2.2.3. Elasticity of Big Arteries

The anterior neural system regulates vascular tone and, when necessary, modifies arterial diameter. The peripheral resistance provided by the artery as a result of sympathetic nerve-induced vasoconstriction, which is Prana Vata's function. The action potential produced by the quick inflow of sodium, calcium, and potassium ions across the SA node membrane is what causes the heart to beat automatically.[10] Given its Teekshna, Drava, and Sara Gunas, the participation of these chemical ions might be said to fall within the jurisdiction of Sadhaka Pitta.

### 2.2.4. Volume of Blood in Circulation

The quantity and quality of Rasa and Rakta Dhatus may be used to calculate the blood volume and cardiac output. Blood pressure rises due to the production of Gouravata and Sirapurnata in the circulatory channels by Rasa, Rakta dhatu Vriddhi. The water homeostasis is upheld by Samana Vata and is dictated by both Apana Vata and Prana Vata [11].

### 2.2.5. Blood Viscosity

Blood viscosity plays a role in determining the barrier to blood flow through tiny blood vessels. Because of the pichhila chemicals present, there is a decrease in dravatwa and an increase in gurutwa and blood sandrata. All of this might be the result of ama production or a dosha that becomes trapped in the dhamanis of a vrikka kledasambahana and is impeded, which increases blood volume, blood viscosity, and cardiac output.

### 2.3. Nidana/Etiological Factors

Since Ayurvedic writings do not explicitly address hypertension, Ayurvedic analysis can be used to determine the etiological variables that Western medicine has regarded to be responsible for the development of essential hypertension.

### 2.4. Genetic Factors (Beejadoshaja)

Hereditary factors may play a part in the aetiology of hypertension. The notion of beeja, beejabhaga, and beejabhagaavayava in Ayurveda is probably going to be passed down to the next generation [11].

### 2.5. Environmental Factors

Some of the important environmental factors implicated in the development of hypertension include age, food, habits etc.

### 2.6. Age

Compared to younger people, older adults often have greater blood pressure. The thickening of the vessel is the cause. As time goes on, vata is the most common dosha. Vata aggravating with ruksha, khara, daruna sheeta guna may lead to the vessels becoming kathinya (Hard) and sankocha (Cold).

### 2.7. Obesity

According to Acharya Sushruta, Medo roga causes Vata vikara. Dalhana responded by explaining that Medo avruta marga causes Vata vikara.

### 2.8. Abnormal Alcohol Consumption (Madya)

Charaka Samhita states in the Madatyaya roga chapter that excessive Madya consumption affects the Ojas, as well as Hrudaya, Mana, Buddhi, Indriyas, and Atma. Hypertension results from Madya's influence on Rasvahasrotas' Dosha, Dhatu, and Srotomula.

### 2.9. Excessive Salt Consumption (Ati Lavana)

The Charaka Samhita explains that Rakta Vriddhi is caused by an excessive amount of Lavana Rasa. It must be understood as Rakta prakopa hetu, one of the key dushya in the process of etiopathogenizing hypertension. Once more in Vimanasthana, Acharya states that prolonged use of Lavana rasa causes Dosha sanchaya. Similar to this, Lavana is supposed to raise Shareera kleda in Astanga Samgraha.

### 2.9. Smoking

Ati dhumapana induces bleeding, giddiness, syncope, and loss of Indriya function in addition to dry throat. This is another



Vata prakopa nidana that causes vascular blockage, which raises peripheral resistance and is frequently linked to hypertension.

### 2.10. Physical Activity

According to a number of demographic studies, those with physically active lifestyles tend to have lower blood pressure than those with sedentary lifestyles. According to Ayurveda, one of the medavaha sroto dusti karanas is inactivity [12]. Therefore, a prolonged period of inactivity may cause Agnimandya to create Ama, which deposits in the arteries of the Dhamani and results in Dhamani pralepa (atherosclerosis).

### 2.11. Physiological Factors

Undoubtedly, a sudden, intensely stressful event raises blood pressure. The relationship between manas, hridaya, prana, vyana vata, and their function in rasarakta sambahan clarifies why manasika karanas like stress cause blood pressure to rise [13]. When discussing srotas, Charak Samhita mentions that rasa raktaparibahana is caused by chinta, which causes Rasavaha srotas to become disordered. With the participation of the manovaha srotas, this aberrant condition of manas results in manovikara. In addition, chakrapani states that Dashadhamani and Hridaya are the Manovah srota moolas. Accordingly, it can be concluded that all psychological elements directly aggravate Vyana vata, vitiate Hridaya, and aggravate Dhamanis, all of which might result in hypertension.

## 3. Results and Discussion

### 3.1. Probable Samprapti

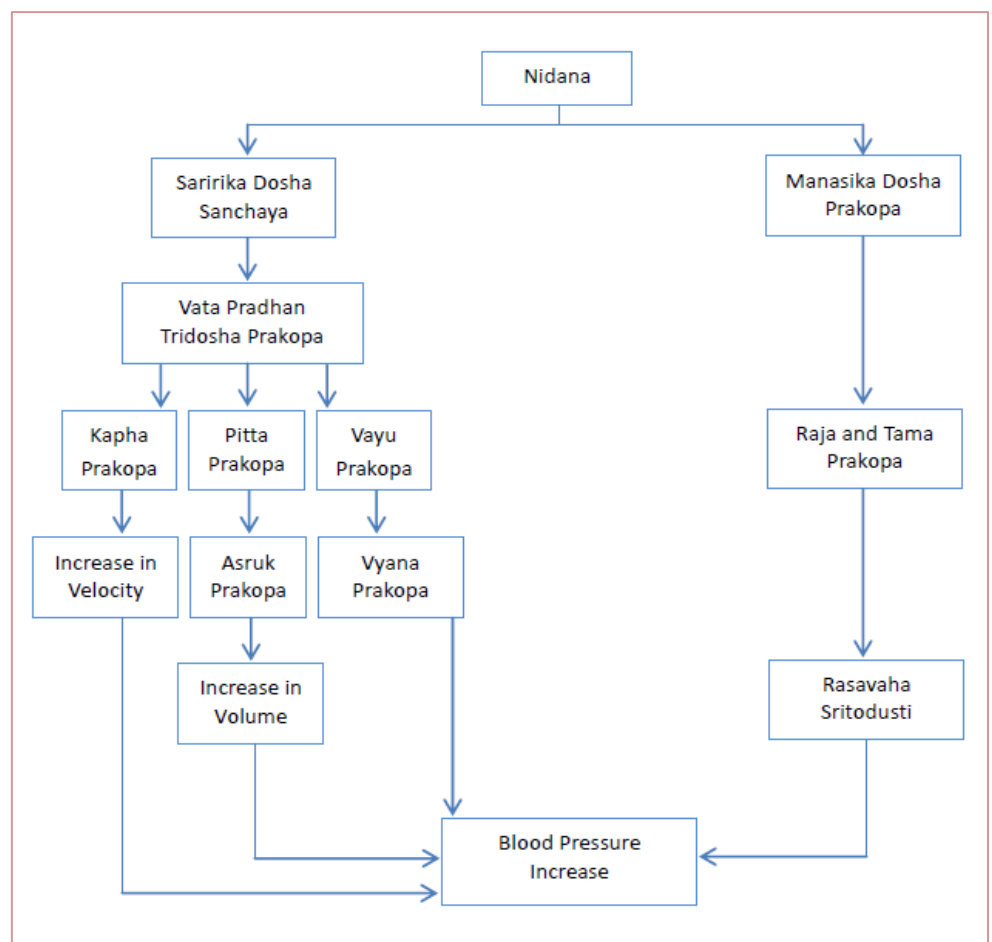


Figure 1. Probable Samprapti

### 3.1.1. Samprapti Ghataka

- Dosha- vata( vyana) pradhan tridosh
- Dhatu- Rasa, Rakta
- Agni- Jatharagni, Dhatwagni vaishamya
- Srotas- Rasa, Rakta, Manovaha srota,Mutravaha
- Srotodusti prakara- Sanga, Vimarga gamana
- Udhvaba sthana- Amashaya samuthha
- Sanchara sthana- Sarva sharira
- Rogamarga- madhyama
- Sandhya sadhyata- Sadhya & Yapya

### 3.2. Lakshana

Hypertension in most cases doesn't show any symptoms but, in some cases,- Bhrama (Giddiness), Shirasula (Headache), Klam (fatigue) Hridrava (Palpitation), Perspiration, Tamodarshana/ Blurring of vision may be seen.

In the context of Ayurveda, hypertension may be viewed as a linga sankara avastha that requires examination of the Doshas, Dushyas, Srotas, and other factors involved. The movement of Rasa Rakta Dhatu is attributable to Vyana Vata. Changes in circulation brought on by blockages in the channels or an increase in Vyana vata, which increases the force exerted on the channel walls by Rasa raktadhatu movement and induces hypertension. Although the heart is the location of Sadhaka pitta and Avalambaka kapha, the two Doshas also have a major function in blood pressure control. Vyana vata is primarily responsible for the circulation of Rasa rakta in the body. Within the Ayurvedic framework, hypertension may be understood as a linga sankara avastha that necessitates an analysis of the Doshas, Dushyas, Srotas, and other pertinent elements. Vyana Vata is the cause of Rasa Rakta Dhatu's movement. Alterations in circulation brought on by channel obstructions or an increase in Vyana vata, which raises the force that Rasa raktadhatu movement applies to the channel walls and causes hypertension. Even though Sadhaka pitta and Avalambaka kapha are found in the heart, the two Doshas also play a significant role in blood pressure regulation. Rasa rakta circulates throughout the body mainly because of Vyana vata.

Since hypertension is a multifactorial illness, patients may also exhibit other Nidanas such as a family history of the condition, excessive Katu amla lavana rasa, pradhana ahara, etc. According to Acharya Sushruta, excessive Madyapana causes Ojokshaya, which in turn affects Hridaya, Mana, and Indriya. It also vitiates Dosha, Dathu, and Srotomula of the Rasavahi srotas, which in turn causes hypertension. Rakta dushti, Dosha sanchaya, and an increase in Sharirika kleda are the results of Atilavana ahara. Ati dhumapana results in Bhrama, Indriya vikruti, and Vata prakopa, which block the vessels and raise peripheral resistance, which is frequently linked to hypertension.

Although several significant symptoms, such as headache, giddiness, palpitations, etc., are described, hypertension is an asymptomatic condition, so there is no special Lakshanas for it.

#### 3.2.1. Headache

According to Acharya Sushruta, "Vatad rute nasti ruja"—that is, no Shoola can develop if Vata isn't vitiated. Shirashoola is one of the 80 varieties of Nanatmaja vatavyadhi mentioned in Charaka Samhita. Furthermore, the Charaka Samhita states Prakupita vatadi dosha as the source of Dushti of Rakta, which localizes to Shira to make Shiroroga, which contains Shirashoola, while elucidating Samanya samprapti of Shiro roga. Thus, Vata dushti might be regarded as a major element in Shi-

rashoola.

### 3.2.2. Bhrama/Giddiness

This might be a sign of high blood pressure. Bhrama is one of the eighty varieties of Vata's Nantmaja illnesses. Bhrama is caused by an excess of Rajo guna in Vata. Bhrama is the result of nidanas such as Alpanidra, Chinta, and Katu rasa pradhana Ahara.

### 3.2.3. Hridrava/Palpitation

Because of Rasakshaya, Hrid dravata is included in the Charaka Samhita. Vata prakopa is the result of any Dhatu kshaya. Nidanans such as Lavana, Katu, Rasapradhana ahara, Alpanidra, and Chinta result in Rasa kshaya and Ojokshaya, which vitiate the Vata dosha and ultimately create Hridravata.

### 3.2.4. Sweating

Medoroga is the primary region where ati sweda lakshanas are observed. Atisweda Lakshana may see when Vata dosha's Upastambhita nidanas are the cause of Vata's vitiation.

### 3.2.5. Fatigue and Klama

Vata prakopa nidanas creates Dhatu kshaya, while Rasa kshaya mostly causes Klama.

### 3.2.6. Vision Blurring/Tamo Darshana

The term for the sensation of dark spots in front of the eyes is Tamodarshana. Since Tamodarshana is mentioned by Charaka Samhita in Rakta pradoshaja vikaras, Srotorodha in Raktavahini sira is the reason for its appearance.

## 4. Conclusion

Following a detailed examination of the literature and principles of both modern and Ayurveda, it is determined that the Ayurvedic method of treating an illness in accordance with its samprapti—that is, Samprapti Vighatanaemava Chikitsa—should be used. It is important to recognize that hypertension is a Vata pradhan tridoshaj vyadhi, with Rasa Rakta Dhatu playing a major Dusya role. According to Acharya Sushruta, Prasad of Rakta and Kapha forms the Hridaya during the creation of Garbha. "Hridayam Sonita Kapha Prasadajam" [14] when treating hypertension, attention should be paid to these originating elements. In addition to rasarakta sambahana, the chosen therapeutic methods should work on the moola sthan. Appropriate pathyapathya and lifestyle choices should also be made for effective management.

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