



The Impact of *Ayurvedic* Herbs and Lifestyle on Hypertension - A Clinical Insight

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Abstract:

Background - Hypertension is one of the most common chronic medical conditions characterized by a persistent elevation in arterial pressure. In India, an alarming 139 million individuals with uncontrolled hypertension are increasing annually. As of the latest guidelines from the American College of Cardiology (ACC), hypertension is defined as having a blood pressure reading consistently at or above 130/80 mm Hg.

Objective - To discover more about hypertension and its management from an *Ayurvedic* standpoint.

Materials and Methods - Analysis was done through various literary sources collected from classical texts, modern books, journals, research articles and internet source.

Discussion - Based on the *nidanpanchaka* of hypertension the treatment protocol to be followed is *nidan parivarjan*, *raktapittahara chikitsa*. Also, *doshapratyanika chikitsa* along with *takradhara*, *rasayana prayog* and *yoga-pranayama* has to be adopted for effective management of hypertension.

Conclusion - Prioritizing *ayurvedic* treatment protocol and lifestyle modifications will help in the effective management of hypertension.

Keywords - Hypertension, *takradhara*, *ayurveda*, *raktapradoshaja vikara*, *doshapratyanik chikitsa*.

Introduction

In a world full of healthcare areas of expertise and super-specialties, Ayurveda sets itself apart by its comprehensive view of the body as an interconnected entity. Human body, with its interdependent and mutually interactive components, is challenging to understand when examined in vacuum. As advocated by *Ayurveda* centuries ago, mankind has recently started to acknowledge the integrated approach to health

encompassing the multidimensional qualities of the body, mind, and soul.¹ Contemporary living has been facilitated by modernization at every turn; nonetheless, this progress has rendered individuals susceptible to several lifestyle disorders. These ailments arise from this detrimental lifestyle and severe psychological situations. These factors affect brain processes and the body's homeostasis via several psychosomatic pathways, leading to numerous lifestyle illnesses, such as diabetes and hypertension.

The World Health Organization has recognized hypertension as a major risk factor for morbidity and mortality globally, accounting for nearly nine million deaths per year.² In India³, an alarming 139 million individuals with uncontrolled hypertension, with this figure are increasing annually. Hypertension is the primary risk factor for non-communicable illnesses and all disease conditions in India. Hypertension contributes to mortality through its impact on cardiovascular-related deaths (1,428,819 casualties) and deaths associated with type 2 diabetes, kidney failure, and other endocrine disorders (209,230 fatalities). It is the most critical risk factor for illnesses affecting the brain, kidneys, heart, and peripheral arterial walls, which can be dangerous if not managed properly⁴.

Hypertension is an underlying illness, since over 30% of individuals with elevated blood pressure remain unaware of their condition⁵. The specific underlying causes of primary hypertension remain unidentified, attributed to cardiovascular risk factors arising from alterations in environmental and lifestyle conditions⁶. In accordance with the traditional values of *Ayurveda*, hypertension is not regarded as a *Vyadhi* (disease); instead, it may be identified by analysing the relevant *doshas*, *dushyas* (entities affected by the morbid dosha), *strotas*, and other elements⁷. Many *Ayurvedic* researchers have proposed different theories about the understanding of hypertension in *Ayurveda*; nevertheless, a cohesive and widely accepted view on the *Ayurvedic* pathophysiology of this condition is lacking. Numerous arguments continue concerning this disease in *Ayurveda*. Here, an effort is made to understand hypertension and evaluate it in relation to *rakta vridhi*.

Aims and Objectives To discover more about hypertension and its management from an *Ayurvedic* standpoint.

Materials and Methods A comprehensive review of many *Ayurvedic* texts was performed to understand Hypertension from the perspective of *Ayurvedic* principles. This study is conducted by conducting a literature review and critical analysis of the findings received from major scientific databases, including PubMed, Google Scholar and other national research repositories.

Observations and Discussion

Definition: As of the latest guidelines from the American College of Cardiology (ACC), hypertension is defined as having a blood pressure reading consistently at or above 130/80 mm Hg.⁸

Hypertension Types:

- A. Primary (Essential) Hypertension (80-95%)
- B. Secondary Hypertension (5-20%)

CLASSIFICATION OF BLOOD PRESSURE ACCORDING TO JNC 7 GUIDELINES⁹

Category	Systolic(mm/hg)		Diastolic (mm/hg)
Optimal	< 120 mmHg	and	<80 mmHg
Pre hypertension	120–129 mmHg	and	<80 mmHg
Pre hypertension	130–139 mmHg	or	80-89 mmHg
Stage 1 hypertension	140-159 mmHg	or	90-99 mmHg
Stage 2 hypertension	>160 mmHg	or	>100 mmHg

Nidana Beeja dosha, kala, atilavana sevana, pitta prakopaka ushna ahara, chinta, bhaya and krodha.

Purva roopa It generally shows no *purvaroopta* that's why it is called as silent killer.

अव्यक्तं लक्षणं तेषां पूर्वरूपमिति स्मृतम् । (च.चि. 28/19)

Roopa According to different *acharyas roopa* are classified

Shirashoola (Su.Su. 17/7), *daurbalya* (Ch.su.24/13), *nidralpata* (Su. Sha 4/42), *chittavasadha, bhrama* (Dalhana), *hridayadrava* (Ch. Su. 17/64), *shwasakashthata*.

Samparpati *Nidana sevana* leads to *beeja dushti* and *dosha prakopa*. *Dosha prakopa* is of 2 ways: one is *tridosha prakopa* and other is *maniksha dosha prakopa*. The *tridosha prakopa* in the body leads to *agni vaishamy* and later it will cause *ama rasa utpathi*. After *ama rasa utpathi* *rasa-rakta dushti* takes place and causes *vikshepana* of *rasa-rakta*. These will lead to *vyana prakopa* and cause hypertension. Coming to *mansika dosha, raja* and *tama dosha* cause *vishamagni* and later cause *rasa- rakta dushti* and later follow same pathophysiology.

Second *nidan* is *beeja dushti* which causes *khavigunyata* and later causes *rasa-rakta dushti* which follows the same pathophysiology like *sharirika* and *mansika dosha*.

Management**Nidanaparivarjana**

Avoiding the causative factors such as *atilavana sevana, atimadhyapana, dhumrapana* and stress.

Involvement of different types of *vata* (*vyana, udana* and *prana*) and *rakta* is generally found.

These factors are involved in pathogenesis in the sense of *avaraka - avrita* and *raktapradosha*.

Hence in the prescription of treatment, the considerations of all types of pathogenesis are essential.

In Raktapradoshaj vikara the choices of Treatments

कुर्याच्छोणितरोगेषु रक्तपित्तहरीं क्रियाम्

विरेकमुपवासं च स्रावणं शोणितस्य च ॥१८॥ (Ch.Su.24/18)

The treatment which alleviates *raktapitta*, *virechana* and *upavasa* according to *bala* and *dosha*, *shonita sravana* according to *bala* and *rakta shodhana*.

Virechana and Langhana

Virechana functions by expelling additional *pitta doshas* from the body. *Virechana karma* alleviates *margavarodha* (obstruction), expunges pathological *doshas* from *rakta*, and modulates the function and motion of *vata*. It is quite effective in the management of *pitta*. Consequently, it reduces hypertension.

From a contemporary perspective, the *virechana* process involves inflammation of the intestinal mucosa, which causes hyperaemia and exudation, leading to an augmented transudation of protein-rich fluids through the vessel walls into the intestinal lumen. An increase in fluid volume also leads to the dilution of toxic substances. The evacuation of fluid from *rasa rakta* through *virechana* is a direct mechanism that results in an overall decrease in fluid volume.

Langhana, it said that in the absence of *anna*(food)the *agni* does the *pachana* (digestion) of *dosha*. Thus, *virechana* and *langhana* might help in the management of hypertension.

Siravedha

Reduction in blood volume: By physically removing blood, *siravedha* lowers the overall blood volume, which decreases venous return and reduces cardiac output, directly helping to lower blood pressure.

Vascular relaxation and stress reduction: Blood-letting may trigger the release of endorphins and other neurochemicals that promote relaxation and reduce stress, both of which are critical in managing high blood pressure.

Balancing *pitta* and *rakta doshas*: Hypertension is associated with imbalances in the *pitta* and *rakta doshas*. *Siravedha* is believed to balance these by removing impure blood, alleviating symptoms of high blood pressure caused by *dosha* imbalance.

Improved Circulation: By reducing congestion in the circulatory system, *siravedha* enhances blood flow and microcirculation, which may lower systemic vascular resistance, another key factor in hypertension management.

According to early made assertion, essential hypertension comes under complex *avarana*, although predominance of individual *dosha* and their different fractions are also notable. Charaka has implied following *chikitsa karma*¹⁰ in general *avarana*. (Ch.Chi.28/239- 241)

Anabhishtyandi, *snigdha*, *strotasa shuddhikara*, *kapha-pitta avruddha*, *vata anulomana*, *yapana basti*, *mrudu virechana* or *stransana* and *rasayana prayoga*.

Doshapratyanik chiktisa***Vataj hypertension***

- i. *Jatamansi* and *Sarpanganda* powder
- ii. *Ashwagandha* and *Saraswata arishtha*
- iii. *Mamsyadi kwatha* & *Lashun ksheera paka*
- iv. *Shirodhara, anuvasna basti & mridu virechana*

Pittaj hypertension

- i. *Shankpushpi* and *Brahmi* powder
- ii. *Mukta pishti, Sutashekara rasa*
- iii. *Arogyavardhini vati, Avipatikara churna*
- iv. *Virechana karma, rakta mokshna*

Kaphaj hypertension

- i. *Punarnava, Vacha, Arjuna* powder
- ii. *Arogyavardni vati*
- iii. *Punaranva asava*

Takradhara

1. Relaxation and stress reduction: *Takradhara* is believed to induce deep relaxation and reduce stress levels, which are significant contributors to hypertension. The gentle pouring of buttermilk on the forehead helps calm the nervous system, thus potentially lowering blood pressure by reducing stress and anxiety.

2. Improvement in circulation: The application of *takra* on the forehead may help enhance blood circulation in the cranial region. When *takra* is poured in a continuous stream over the forehead it might communicate with the deepest recesses of the brain by soothing the *Marmas*; With an Ayurveda perspective the *Marmas* located in the head viz., *Apanga, Avarta, Shanka, Utkshepa, Seemantha and Sthapani Marma*. *Takradhara* stimulates these *Marmas* and is said to improve circulation; This improved circulation could contribute to better overall vascular health and potentially lower blood pressure.

3. Balancing *doshas*: In *Ayurveda*, hypertension is frequently associated with an abnormality in the body's *doshas*. *Takradhara* promotes in equilibrating these *doshas*, especially *pitta*, which is linked to warmth and inflammation. This balance might support overall cardiovascular health and reduce hypertension.

4. Neurophysiological effects: The continuous flow of *takra* on the forehead is thought to stimulate the brain's parasympathetic nervous system, promoting a state of calmness and relaxation. This neurophysiological effect can help in managing blood pressure levels.

Rasayana

Brahmi - It has antioxidant properties, enhances cognitive function, and supports healthy blood circulation. By reducing oxidative stress, Brahmi can indirectly aid in lowering blood pressure.

Jatamansi - It is a neuroprotective and helps calm the nervous system, which can lower stress-induced blood pressure elevation.

Shankhpushpi - *Shankhpushpi* has calming effects on the nervous system and helps regulate blood pressure by lowering cortisol and promoting relaxation.

Yoga and Pranayama¹¹

Yoga promotes mindfulness and mental well-being, which can alleviate anxiety and depression

- *Tadasana, Vajrasana, Ushtrasana, Shashankasana, Bhujangasana, Gomukhasana, Makarsana, Vakrasana, Shavasana*
- *Nadishodhana, Ujjayi, Shitali, Sitkari and Bhramari.*

Conclusion

In modern society, unhealthy lifestyle choices and dietary habits, as well as psychological stress factors such as excessive worry, fear, anger, and laziness can contribute to the development of hypertension. In modern science classifies hypertension as a disease, *Ayurveda* sees it as the accumulation of all the *doshas* and *rakta* (blood) circulating throughout the body until they become lodged at a specific spot of *khavaigunya*.

These factors can impact human beings whether or not they have an ancestral a tendency, resulting to a disparity in all three *doshas* and the emergence of hypertension. This determines the specific organ affected by the disease process. Recent developments in medical research have enabled early detection of this disease, allowing for proper care at this stage to prevent potential harm to key organs. Hypertension is a medical disorder in which the *vata pradhana tridoshas* are imbalanced, leading to the impairment of the *rasa-rakta dhatus*. This affects both the *sarva shareera* and *manas* as its underlying basis. To ensure effective management of hypertension, it is crucial to prioritize lifestyle modifications and provide appropriate *ayurvedic* medications.

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