



UNDERSTANDING HYPERTENSION THROUGH AYURVEDIC PRINCIPLES: A COMPREHENSIVE PERSPECTIVE

Dr. Snehal Laxman Deshmukh*¹ and Dr. Mohanan M.²

¹Assistant Professor, Department of Swasthavritta Evam Yoga, Global Institute of Ayurveda, Rajkot, Gujarat- 360020, India.

²Professor, Department of Rasa Shastra Evam Bhaishajya Kalpana, Ayurvedic Medical College and Hospital- Sanskriti University, Mathura, U.P-281401, India.

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*Corresponding Author

Dr. Snehal Laxman
Deshmukh

Assistant Professor,
Department of Swasthavritta
Evam Yoga, Global Institute
of Ayurveda, Rajkot,
Gujarat- 360020, India.

ABSTRACT

With the rapid pace of modernization, stress has become an integral part of people's lives, leading to the widespread prevalence of hypertension globally. In India, hypertension is a significant contributor to mortality, being responsible for 57% of stroke and 24% of coronary heart disease deaths. Despite the availability of potent antihypertensive drugs, they often come with adverse effects. *Ayurveda*, with its focus on maintaining good health and embracing a healthy lifestyle, offers an alternative approach. While scattered references to hypertension exist in *Ayurvedic* literature, there's a pressing need to develop safe, effective, and cost-efficient remedies within *Ayurveda*. Developing *Ayurvedic* therapies for hypertension requires a comprehensive understanding of the condition according to *Ayurvedic* principles. This research paper aims to bridge the gap by exploring hypertension through the lens of *Ayurveda*, offering insights that can inform both treatment and preventive strategies.

KEYWORDS: Hypertension, *Shonita dushti*, *Rasa- Raktavaha srotas*, high blood pressure, *Tridosha*.

INTRODUCTION

Hypertension, commonly known as high blood pressure, is defined as an elevated arterial pressure exceeding 140/90 mm of Hg, as measured by a Sphygmomanometer. It stands as a significant global health concern, contributing to a multitude of disabilities and fatalities

worldwide. If left untreated, hypertension can precipitate severe complications such as heart attacks, strokes, and kidney failures. Despite its instrumental diagnosis, hypertension often presents with symptomatic manifestations including headaches, dizziness, palpitations, and fatigue, underscoring its clinical significance.^[1] In *Ayurveda*, the ancient Indian system of medicine, the concept of "*Shonita dushti*" elucidates various causative factors akin to those associated with hypertension, such as *ati lavana sevana*, *madya*, *sura pana*, *ati snigdha bhojana* and *ati chinta*, *shoka* etc. *manasika bhavas*. The manifestations of "*Shonita dushti*," including, *shirashoola*, *bhrama*, *klama*^[2] bear resemblance to the symptoms of hypertension. This convergence of symptoms and etiological factors underscores the relevance of exploring hypertension from an *Ayurvedic* perspective, providing valuable insights for its management and prevention.

AIMS AND OBJECTIVE

The aim of this study is to elucidate the factors contributing to hypertension from an *Ayurvedic* standpoint and to provide a comprehensive understanding of hypertension within the framework of *Ayurveda*. Specifically, the objectives are to identify the key factors involved in hypertension according to *Ayurvedic* principles and to elucidate the pathophysiology of hypertension through the lens of *Ayurveda*, thereby contributing to the development of effective treatment and preventive strategies informed by traditional *Ayurvedic* wisdom.

MATERIALS AND METHODS

To study signs and symptoms resembling hypertension with *Ayurvedic* perspective, classical texts on *Ayurveda*, modern literature, available research updates and scientific information available on internet etc. were searched and analyzed.

OBSERVATIONS AND DISCUSSION

AYURVEDIC PERSPECTIVE- Description of *Hridaya* and processes of *Rasa Vikshepana* (circulation) by *Vyana vayu* is helpful to understand the disease. Though the exact nomenclature of the disease to some extent is controversial, the signs and symptoms of the disease can be understood in terms of *Doshas*, *Dushya*, *Srotas*, 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* or *Vikshepa* is achieved by *Vayu* itself.^[3]

Pitta and *Kapha* complement the effect of vitiated *Vata* and supports the progress of the

disease with *Rasa*, *Rakta* (whole body) being the main mediator of vitiation. This suggests the involvement of *Tridosha* in hypertension.

FACTORS INVOLVED IN HYPERTENSION

PRANA VAYU: *Prana vayu* situated in *murdha*^[4] performs the functions like *hridaya dharana*, *buddhi*, *indriya dharana*.^[5] Here *hridaya dharana* could be viewed as neural centre regulates heart rate, contractility of ventricles and blood vessel diameter through which it regulates the blood pressure.^[6]

VYANA VAYU: *Vyana vayu* situated in *hridaya*^[7] performs the functions like *Rasadi samvahana*, *prasarana*, *akunchana*, *gati*, *asrik sravana*.^[8] Here *rasadi samvahana* is *rasa-rakta samvahana*. *Prasarana*, *akunchana* could be viewed with respect to contraction and relaxation of heart. *Gati* as the force of blood flow.

SAMANA VAYU: According to *Sharangadhara*, after digestion process *Samana vayu* helps in transportation of *Rasa* into the heart and from there it circulates in the whole body.^[9] Thus *samana vayu* has an important role in the circulation.

SADHAKA PITTA: *Sadhaka pitta* situated in *hridaya* responsible for *buddhi*, *medha*, *utsaha*^[10] and helps to keep away *Tama* and *Raja guna* which hampers normal functions of *Manas*. Any psychological disturbance hampers the normal functions of *Sadhaka pitta* which results to increase in *Raja guna* that aggravates the function of *Vyana vata* resulting in exaggerated contractility of heart that increases forceful expulsion of blood resulting into high blood pressure.

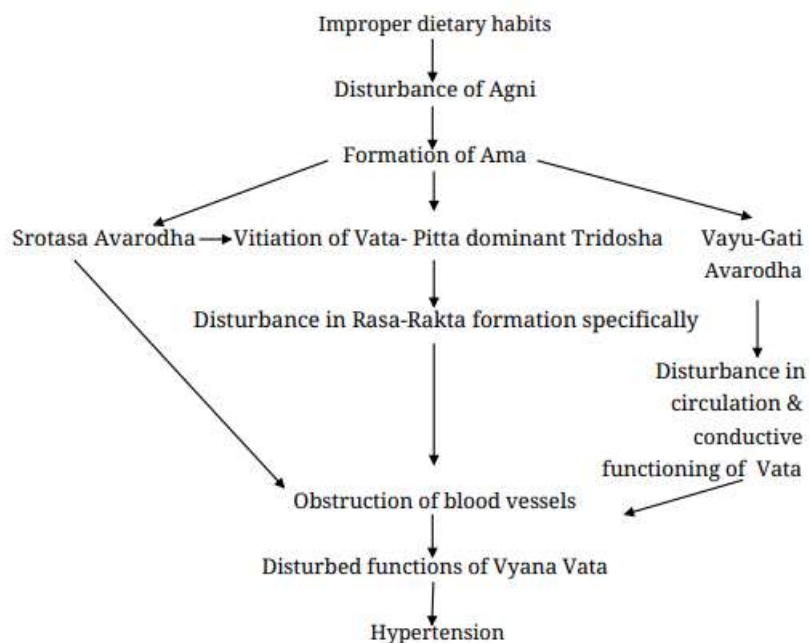
AVALAMBAKA KAPHA: *Avalambaka kapha* situated in *urah sthana* performs *Avalambana* of *hridaya*. It gives strength to the cardiac muscle tissue for proper pumping action which results in ejecting blood to body tissues through vessels.

DUSHYA: In circulatory system *Aahar rasa*, *Rasa Dhatu* and *Rakta dhatu* are the entities which circulate all over the body. In the context to blood pressure *Rasavaha* and *Raktavaha srotasas* are important as they are related to “*Rasa-Rakta Samvahana*”. *Annavaha srotas* gets vitiated due to untimely intake of large quantity of unwholesome food and impairment of *Agni* (digestive capacity).

MANA: In *Ayurveda Pradnyaparadha* and *Asatmendriyarth Samyoga* are considered as the

root causes for every diseases, which indicate the involvement of psyche. *Manas bhavas* like *chinta* (worry), *krodha* (anxiety), *bhaya* (fear) plays an important role in pathogenesis, progression and prognosis of the disease as well as response to the treatment of the disease.^[11] This fact reveals that *Mana* is also involved in hypertension and the disease should be considered as psychosomatic.

PATHOGENESIS OF HYPERTENSION IN AYURVEDA



CHIKITSA (TREATMENT)

Nidana Parivarjana (Avoiding the causative factors): Avoid taking foods and activities which disturb the 3 *Dosha*'s (*Vata*, *Pitta* and *Kapha*) which are the primary culprits in the causation of Hypertension. 3 *Dosha* balancing diet (good, healthy, fresh and balanced nutrition) – should be taken on a regular basis (predominant in fruits and vegetables). Mainly excessive cold or hot, dry or oily, stale, preserved and packed foods, spicy, sour, heavy to digest foods and junks should be avoided.

PATHYA AND APATHYA IN HYPERTENSION- (REF: Pathyapathya vinirnaya)

| | PATHYA (DO's) | APATHYA (DON'Ts) |
|-----------------------|--|-------------------------------------|
| Cereals | Old shali rice | Newly harvested barley, millets etc |
| Pulses | Chickpea(canaka), pigeon pea(arahara), green gram(mudga), kulattha | Black gram (masha) |
| Fruits and vegetables | Patola, kadali phala, dadima, mulaka, dry grapes, rasona, eranda taila, purana guda, | Potato |

| | | |
|-----------|--|---|
| | coriander, ginger | |
| Others | Saindhava lavana, jangala mamsa rasa, cow milk | Dushitjala, dugdha, kashaya amla rasa ahara |
| Lifestyle | Vaman, Virechana, langhana, basti, swedana, physical exercise, worry, massage with medicated paste/powder(udvartana), sunlight exposure, walking, apatarpana ahara, exercise, bathing with luke warm water | Trushna, chardi-vega dharana |

YOGA: Research shows that practicing yoga (including poses or asanas, breathing techniques and meditation) promotes an alpha brainwave state, known to lower blood pressure.

ASANA- Halasana, Pascimottanasana, Ardhamatsyendrasana, Ustrasana, Salabhasana.

INTERNAL TREATMENTS (ANTAH-PARIMARJANA)

| SR.NO | NAME | DESCRIPTION |
|-------|---|---|
| 1 | Virechana or therapeutic Purgation | It is an ideal way of controlling and eliminating the morbid Pitta (Kapha) and associated Vayu. <i>Virechana</i> also corrects the metabolism and provides lightness to the body. The blocks in the body cells and blood vessels will be removed. The functions including heart functions will be resuscitated. <i>Virechana</i> also removes the morbidity of blood and restores blood health. |
| 2 | Basti (Medicated Enemas) | This is an unparalleled treatment to control <i>Vayu</i> . If <i>Vayu</i> is controlled the other things will be put in place and the health will be restored. |
| 3 | Raktamokshana | Bloodletting therapy is used to let out the contaminated blood and to relieve blocks in circulation. This further aids to free circulation, reestablishment of heart and circulatory functions and relief from peripheral resistance. This was used as a key remedy for <i>Rakta Dushti Janya Vikara's</i> (Diseases caused due to contamination or morbidity of blood tissue) and is rarely administered now days. |

• BAHIR PARIMARJANA (EXTERNAL THERAPIES)

| SR.NO | NAME | DESCRIPTION |
|-------|--------------------------|--|
| 1 | Takra Shiro Dhara | This is a special treatment from the home of <i>Ayurveda</i> in relieving Hypertension. In this medicated buttermilk will be poured in streams on a shaved scalp while the patient sleeps on the <i>Dhara table</i> in supine position. The treatment is carried on for a period of 35-45 minutes. |
| 2 | Ksheera Dhara | This is a similar method like <i>Takra Dhara</i> . Here the medicated milk shall be poured in streams not only on the head but also on the whole body. |
| 3 | Taila Dhara | Medicated oil is used for pouring on the body and head in streams. (Other forms like <i>Shiro Pichu</i> – Keeping cotton |

| | | |
|---|--------------------------|--|
| | | pieces dipped in medicated oil on the scalp and tying it in place, <i>Shiro Vasti</i> – Pooling of medicated oil in a cabin created on the head etc are also used alternatively) |
| 4 | <i>Shiro Lepa</i> | Application of medicated pastes of herbs on the scalp |
| 5 | <i>Avagaha</i> | Tub bath in medicated oil (Sitz bath) |

AYURVEDIC ANTI-HYPERTENSIVE HERBS

| Sr.No | Herb Name | Latin Name of Herb | Description |
|-------|-------------|------------------------|--|
| 1 | Sarpagandha | Rauwolfia Serpentina | It is said to be most powerful hypotensive plant. Reserpine, the purified alkaloid of R.serpentina was the first potent drug widely used in the long term treatment and management of HTN |
| 2 | Rasona | Allium sativum | It is said to lower the blood pressure especially the systolic part. The sulphur containing compounds found in garlic including allicin is said to act on body's nitric oxide system which relaxes the arteries and lowers systolic blood pressure |
| 3 | Arjuna | Terminalia arjuna | It is said to be best in treating heart ailments. Ideal drug to correct circulation disturbances and also to alleviate stress |
| 4 | Jatamansi | Nardostachys jatamansi | Various extracts of its root showed hypotensive activity in cats (Hamied et al;1962) The alkaloidal fraction showed a significant and sustained hypotensive action in dogs (Bose et al;1957) |
| 5 | Brahmi | Bacopa monnineria | The alcoholic extract of the whole plant in a dosage of 20mg/kg showed a transient fall in blood pressure |

OTHER USEFUL DRUGS: Amalaki, shati, bala, shigru, kutaja, tulasi, ugragandha, bacuki, nagakesara, puskaramula, jivanti, madhuka, bakula, kataphala, parijata, kumuda etc.

CONCLUSION

In culmination, an extensive exploration of literature and fundamental principles in *Ayurveda* underscores the practicality and significance of the *Ayurvedic* approach in treating diseases based on their pathogenesis. This review has illuminated the efficacy of *Ayurvedic* interventions, particularly in managing hypertension, through adherence to *Pathya-Apathyas* outlined in *Ayurvedic* texts, advocating for the avoidance of etiological factors. The integration of proper medication in accordance with *Ayurvedic* principles, complemented by appropriate dietary habits, lifestyle modifications, and yoga practices, emerges as a holistic and effective strategy for blood pressure control, devoid of adverse effects. Embracing the holistic wisdom of *Ayurveda* in hypertension management holds promise for improving therapeutic outcomes and enhancing overall well-being.

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