

REVIEW OF HYPERTENSION ACCORDING TO AYURVED SCIENCE

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ABSTRACT

Hypertension is the most important noncommunicable disease risk factor in India with an estimated burden of 200 million persons. As of 2014, approximately one billion adults or ~22% of the population of the world have hypertension. It is slightly more frequent in men, in those of low socioeconomic status, and it becomes more common with age. It is common in high, medium, and low income countries. Rates also vary markedly within regions with rates as low as 3.4% (men) and 6.8% (women) in rural India and hypertension was more in men (24.5%) than women (20.0%). Hypertension is more common in developed states of the India. Measuring BP and treating a patient just for his High BP is not a classical way of treatment as per Ayurveda. The possible **sampraptis** that might occur in the body in a hypertensive state is explained clearly in the classics and these in any

way cannot be directly correlated to HTN, but can be used to understand such new conditions. As we understand or frame a pathogenesis / samprapti (सम्प्राप्ति) in Ayurveda for HTN, because HTN / High BP only is a presentation in different other sampraptis. This effort of interpretation of HTN in Ayurveda is made to simplify the concept and only is a pointer as to how a new condition could be interpreted based on Ayurvedic principles. In this article we are mainly focusing on Review of Hypertension according to Ayurved Science (Ayurved samprapti).

KEYWORDS: Hypertension, Vyan Vayu, Aama, Shonita Dusti.

INTRODUCTION

Hypertension is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure typically does not cause symptoms. Long-term high blood pressure, however, is a major risk factor for coronary artery disease, stroke, heart failure, atrial fibrillation, peripheral arterial disease, vision loss, chronic kidney disease, and dementia.

High blood pressure is classified as primary (essential) hypertension or secondary hypertension. About 90–95% of cases are primary, defined as high blood pressure due to nonspecific lifestyle and genetic factors. Lifestyle factors that increase the risk include excess salt in the diet, excess body weight, smoking, and alcohol use. The remaining 5–10% of cases are categorized as secondary high blood pressure, defined as high blood pressure due to an identifiable cause, such as chronic kidney disease, narrowing of the kidney arteries, an endocrine disorder, or the use of birth control pills.

Blood pressure is expressed by two measurements, the systolic and diastolic pressures, which are the maximum and minimum pressures, respectively. For most adults, normal blood pressure at rest is within the range of 100–130 millimeters mercury (mmHg) systolic and 60–80 mmHg diastolic. For most adults, high blood pressure is present if the resting blood pressure is persistently at or above 130/80 or 140/90 mmHg. Different numbers apply to children.

Ambulatory blood pressure monitoring over a 24-hour period appears more accurate than office- based blood pressure measurement.

दूषयित्वा रसं दोषा विगुणा हृदयं गताः !

कुर्वन्ति हृदये बाधां हृद्रोगं तं प्रचक्षते !! सु.उ.43/4

Sushrut Samhita is well known literature in Ayurveda. According to this Granth (ग्रंथ) irregular diet, Unhealthy food, lack of exercise Dosh increases in body and that dosha spread into Ras dhatu. That dosha contaminated ras dhatu and this Ras goes into Hruday. This condition gradually converted in various cardiac disorders.

Ayurvedic practitioners are often confronted with patients already diagnosed as having HTN with reference to the recommended safe limits of Systolic & Diastolic pressures. How reliable/important are these readings to assess whether one is healthy or not?

We often come across patients with high systolic / diastolic pressures, and yet are so comfortable. And on the contrary, we hear patients complain of unease, discomfort, pain etc., despite the controlled BP values etc. This signifies that, keeping a check on one's BP / cholesterol levels alone does not make one healthy and is not an absolute indicator of health.

In view of the above factors, Ayurvedic doctors are faced with situations, when it becomes difficult to decide whether to focus on bringing down the BP levels through Ayurvedic drugs, compromising on the classics or to follow the classical line of treatment, paying less attention to the BP values initially.

DISCUSSION

Hypertension is of two types

Primary or the essential HTN and secondary HTN. Clinically both of these may be benign or malignant. Haemodynamic factors regulating HTN are cardiac output and the total peripheral vascular resistance.

Essential HTN

Pathogenetic mechanism,

- Increase in blood volume (volume HTN), arteriolar constriction (vasoconstrictor HTN)
- Increased cardiac output

Secondary HTN

- Renal vascular HTN
- Renal parenchymal HTN

Coming to the Ayurvedic interpretations for HTN, we have to first know what are the existing conditions in Ayurveda, which are understood or compared to HTN. *Uccha rakta chapa*, *Shonita dushti*, *raktagata vata*, *rasa dusti* and so on are compared or correlated to HTN. Is it the case always? And is sufficient to understand and manage HTN in Ayurveda?

Measuring BP and treating a patient just for his High BP is not a classical way of treatment as per Ayurveda. The possible **sampraptis** that might occur in the body in a hypertensive state

is explained clearly in the classics and these in any way cannot be directly correlated to HTN, but can be used to understand such new conditions.

In HTN there is

- Increased pressure exerted by the heart during the phase of relaxation on the arterial walls.
- Increased cardiac output.
- Raised peripheral resistance.

HTN in Ayurveda can be understood keeping these two factors in mind

- Increased cardiac output and
- Raised peripheral resistance.

Initially, there is increased cardiac output, resulting in peripheral resistance after some time.

What actually happens in HTN?

To know this, physiology has to be first understood to the core. If Prakruti (प्रकृति) is understood well, vikruti (विकृति) could be known.

आहार सम्भवं वस्तु रोगश्चाहार सम्भवः (Ch. Su 28)

Creatures are formed out of ahara (food / आहार) and so are the diseases. Therefore any change, be it a positive or a negative, is a result of ahara and this shows the importance of the food.

Prakruta Ahara Parinama (प्राकृत आहार परिणमन) – the Ayurvedic physiology..

Ahara ⇨ Jatharagni ⇨ AHARA RASA ⇨ Hrudaya prapti ⇨ Vyanena vikshiptaha ⇨ Sarva deha sanchara for tarpana & poshana.

So derangement in any stage of this cycle itself is the cause for all diseases and is true for HTN as well.

Components of the body involved in HTN are,

- Heart – Hrudaya (हृदय)
- Blood vessels – Dhamani (धमनि)
- Blood – Drava (द्रव)

So, it could be inferred that HTN is the Derangement of

1. Drava
2. Hrudaya/vyana prana vata (functional components)
3. Dhamani

Any or all of these can lead to high blood pressure once impaired and any one of the impaired component will invariably affect the other as they are interlinked.

1. Role of deranged DRAVA in causation of HTN

Firstly it should be understood what exactly is this entity called drava (द्रव). It is commonly known that the circulating fluid is the blood and its pressure we measure. Is it the case when it comes to Ayurveda? Is it the blood / the rakta dhatu (रक्त धातु) which is circulation?

No, the drava, that is to be considered is the AHARA rasa, the end product of jatharagni paka (जाठराग्निपाक) and not the RASA or RAKTA. Because according to chakrapani, AHARARASA – the resultant of jatharagni paka, is the one in circulation. So, the circulating fluid / drava is predominantly is AHARA RASA. It might contain a portion of rasa and rakta but is mostly ahara rasa.

Impaired Jatharagni \rightleftharpoons Aahara sevana \rightleftharpoons Utpatti of Aama



स्रोतरोध बलभ्रंश गौरवानिलमूढता: !

आलस्यापक्तिनिष्ठीव मलसंङ्गारुचिक्लमा: !!

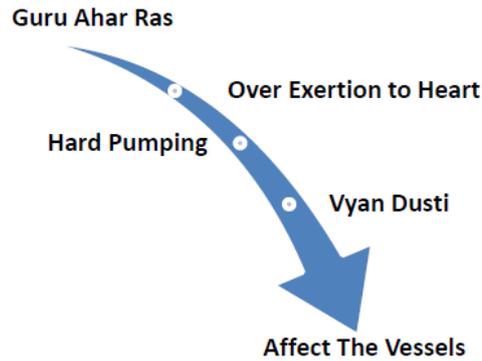
These are the samanya ama lakshanas. As per — drava guru aneka varna, hetu sarva roghanam durgandhi hariita etc are the ama lakshanas. Based on this, the formed AMA may be of two consistencies, i.e

AAMA (आम) can be of two types,

1. a) Drava guna pradhana (increased *ap* mahabhoota- based on nidana sevana)



b) Guru guna pradhana (increased *pruthwi* mahabhoota – based on niadana sevana)



Any of these or both these sampraptis can happen when the drava or circulating fluid gets disturbed.

Not only this, drava can also get deranged by pre-existing pathologies like

- Grahani, Pandu, Shotha and Shonita dushti ultimately affecting the blood pressure.

Here, in derangement of drava, based on the nidana sevana, type of ahara rasa dushti is to be found out and treated accordingly. In-case of grahani, pandu ... so on, and treatment should aim at vighatana of respective sampraptis.

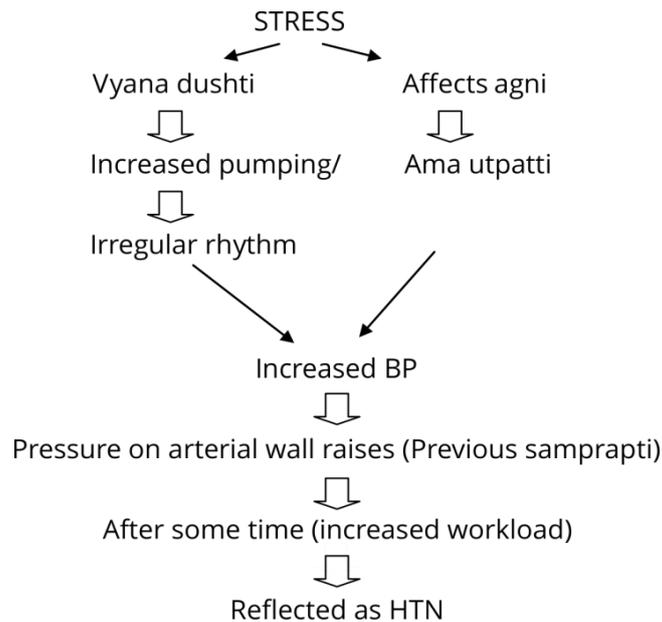
1. Role of Deranged Vyana Vata (Hrudaya) in causation of HTN

Stress is another important factor in causing High BP. It is a common knowledge that, when a person is under pressure /tension, body gives out natural reactions like increased heart rate /increased respiration and so on. If this is the state once in a while as mechanism (fight or flight) of survival, it does not cause any harm to the body but, if continued for a prolonged period of time, body suffers the changes like increased HR etc, throughout, resulting in vyana vata dushti. When vyana is affected, normal functioning of hrudaya is affected. In case of HTN, longstanding stress vitiates vyana vata – leading to increased vyana karma i.e increased pumping. This increased pumping further vitiates vyana vata. So this becomes a vicious cycle.

Stress, apart from doing vyana vata dushti, also impairs agni to a very great extent, leading to ama ahara rasa utpatti and when this happens – samprapti of deranged drava sets in.

Here in such cases, only after nidana parivarjana, (i.e, tackling stress) first, the vyana vata should be taken care of. Treating vyana without reducing stress or using anti hypertensives like sarpagandha / manasamitra vati etc., is not the classical approach. After having tackled stress, vyana vata has to be corrected and then the agni, because agni suffers greatly by stress.

2. Role of Deranged Vessels (dhamani) in causation of HTN

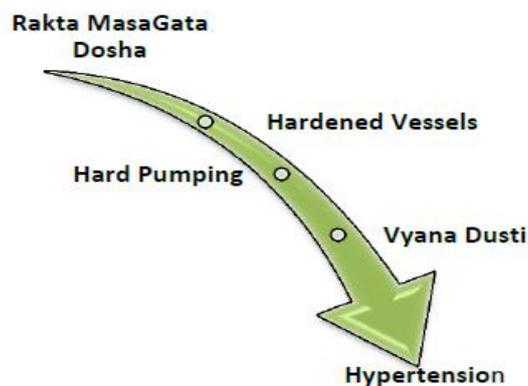


The vessels here are the dhamanis, because the ahara rasa, the circulating fluid remains in circulation in the dhamanis, as they are sthana of Ahara rasa. This only means, that 365 days 24/7, this ahara rasa keeps circulating without stop and this is the entity which gets replenished every day. So every meal contributes to raised or lowered BP. Therefore, a sphygmomanometer measures the “ahararasa stimulated by vyana vata in dhamani”l.

Initial sampraptis happen at the level of dhamani i.e., mainly in the form of avarodha.

Changes in the arteriolar walls result in raised peripheral resistance (only after some time).

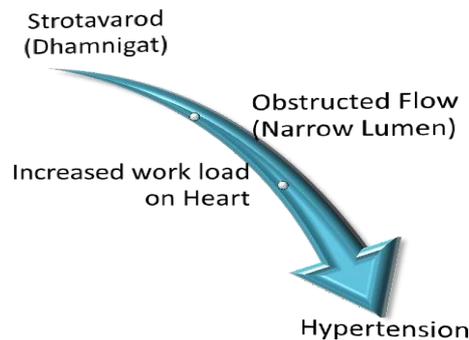
Phenomenon – 01



In longstanding HTN case, doshas are usually uttana dhatugata, they bring in some structural change in the arteriolar walls. They pose obstruction to the normal flow. When the hrudaya

(हृदि) has to pump against this avarodha (अवरोध / obstruction), it needs to work really hard, then vyana vata dushti happens. Unless this dhatugata doshas are cleared, vyana dushti will not stop. So in such cases of established HTN with dhatugata dosha, it may take months to years for the BP to come under control. Here too the treatment should be targeting the dosha dushya and not BP. After having cleared the dhatugata dosha, vyana vata which has undergone dushti, secondarily has to be looked after. Anulomana has to be done.

Phenomenon – 02



This is easier to treat when compared to the first condition. Because, the doshas here are not dhatugata. So clearance of srotorodha and then the vyana vata correction should be the line of treatment.

In such cases, controlling BP needs lesser span of time compared to first one.

To sum up,

- The circulating material is predominantly AHARA rasa.
- The force that is pumping is the Vyana vata & / or Prana vata
- The channels through which it is moving is predominantly Dhamanis

Factors involved are:

- Jatharagni
- Ahara rasa
- Rasa / rakta dhatus (dushti / impaired agni)
- Vyana vata
- Dhamanis

CONCLUSION

So whenever a patient comes with the presentation of HTN, all the above factors have to be considered which are the real causes for the symptom, rather than HIGH blood pressure

which is just a manifestation or a presentation of underlying cause.

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