



ISSN 2456-3110

Vol 2 - Issue 1

Jan-Feb 2017

Journal of
**Ayurveda and Integrated
Medical Sciences**

www.jaims.in

JAIMS



Charaka
Publications

Indexed

Hypertension Vis-à-Vis *Vatavyadhi* - A Critical Analysis

Sreelakshmi P,¹ Totad Muttappa,² Vasantha B,³ Yadu N Mooss.⁴

¹Post Graduate Scholar, ²Assistant Professor, ³Assistant Professor, ⁴Post Graduate Scholar. Department of Kayachikitsa, Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan, Karnataka, India.

ABSTRACT

Hypertension (HTN or HT), also known as high blood pressure or arterial hypertension, is a chronic medical condition in which the blood pressure in the arteries is persistently elevated. Ranked as the third important risk factor for attributable burden of diseases in South Asia (2010). There are two basic components involved in the physiology of arterial blood pressure-cardiac output and peripheral resistance. Here hypertension has been understood on the grounds of *Vatavyadhi* and the management of hypertension on the same grounds has been elaborated. This paper throws an insight to the understanding and management of hypertension under the broad spectrum of *Vatavyadhi*. Also highlights the mode of action of anti-hypertensives on Ayurvedic grounds.

Key words: Hypertension, *Vatavyadhi*, *Chikitsa*.

INTRODUCTION

Hypertension (HTN or HT), also known as high blood pressure or arterial hypertension, is a chronic medical condition in which the blood pressure in the arteries is persistently elevated.^[1]

WHO rates HTN as one of the most important causes of premature deaths and also as the third important risk factor for attributable burden of diseases in South Asia (2010).^[2] HTN is directly responsible for 57% of all stroke deaths and 24% of all Coronary Heart Disease (CHD) deaths in India. The prevalence of hypertension ranges from 20-40% in urban adults and 12-17% among rural adults.^[3]

Address for correspondence:

Dr. Sreelakshmi P

Post Graduate Scholar. Department of Kayachikitsa, Shri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan

E-mail: sreelakshmi.periya@gmail.com

Submission Date : 09/02/2017

Accepted Date: 29/02/2017

Access this article online

Quick Response Code



Website: www.jaims.in

DOI: 10.21760/jaims.v2i1.7519

Types of HTN

There are different basis of classifying Hypertension.^[4]

- Basic types: Primary, Secondary
- Classification of Blood Pressure for adults aged 18 years or older.
 - Normal: Systolic less than 120 mm Hg, diastolic less 80 mm Hg
 - Pre-hypertension: Systolic 120-139 mm Hg, diastolic 80-89 mm Hg
 - Stage 1: Systolic 140-159 mm Hg, diastolic 90-99 mm Hg
 - Stage 2: Systolic 160 mm Hg or more, diastolic 100 mm Hg or more
- Hypertensive crisis: Hypertensive urgency, Hypertensive emergency

Physiology of Arterial Blood Pressure

Arterial Pressure depends on two factors: Cardiac Output and Peripheral Resistance. Cardiac output further depends on the stroke volume and heart rate. Peripheral Resistance depends on Vascular Structure and the Vascular Functions.^[5]

Management of Hypertension^[6]

- Management without medicines which includes,
 - Weight reduction

- b. DASH diet-Dietary Approaches to Stop Hypertension
 - c. Dietary sodium reduction
 - d. Moderation of physical activities
2. Management with medications like ACE inhibitors, CCB, ARB, beta blockers, etc.

Ayurvedic understanding of Hypertension

Ayurvedic concept of circulation

The *Ahararasa* that is formed is carried to the *Hridaya* by *Samana Vata*^[7] (can be understood as *Aharana Karma*) which gives nourishment to the *Hridaya*, (specifically *Srotas* and *Dhamani*). From *Hridaya* this *Ahara Rasa* along with *Rakta* is transported throughout the body by *Vyana Vata*.

The word *Hridaya* is formed of three parts, *Hri*: *Aharana* (receives); *Da*: *Dana* (gives); *Ya*: *Ayana* (movement). So, we can understand that the *Karma* of *Hridaya* are carried out by *Vata*.

Dosha-Dushya Vivechana in Hypertension

Depending on the symptoms that are present in hypertension, we can understand the involvement of *Dosha-Dushya* in the manifestation of the same.

Table 1: Showing the *Dosha-Dushya Vivechana* in hypertension

Symptoms	Shareerika dosha			Manasika dosha		Dushya		
	V	P	K	R	T	R	RA	M
Headache	✓						✓	
Vertigo	✓	✓	✓	✓			✓	
Palpitation	✓		✓			✓		✓
Fatigue	✓	✓					✓	✓
Chest pain	✓						✓	

Insomnia	✓	✓		✓				
Anxiety	✓			✓				
Irritability	✓	✓		✓				
Delirium	✓		✓		✓			
Anger		✓		✓			✓	
Fainting	✓	✓			✓			

V - Vata, P - Pitta, K - Kapha, R - Rajasika, T - Tamasika, R - Rasa, RA - Rakta, M - Meda

The symptoms which manifests in hypertension are analyzed using the basic parameters like *Dosha-Dushya*. Most of the symptoms explained here are due to the *Vata Dushti*: *Kevala Vatika* or *Avarana Janya*. Considering these factors the line of treatment for *Vatavyadhi* can be adopted in this condition.

Analysis of *Samprapti* of Hypertension

Heart rate refers to the *Gati* or *Karma* of *Vyana Vata*, which can be considered as *Kevala Vatika Avastha*. Stroke Volume on the other hand depends on *Vyana Vata (Gati)*, *Avalambaka Kapha* and *Kleda Guna* of *Kapha* and *Pitta*. Vascular functions depends on *Tridoshas (Vyana Vata Karma, Kledamsha of Kapha and Pitta)*, *Rasa* and *Rakta*. Vascular Structure depends on the *Kledamsha* of *Kapha* and *Pitta* along with the inevitable role of *VataDosha*.^[8] Taking these into consideration, the last three factors can be taken as *Avarana Avastha* of *Vata*.

On analyzing the *Kriyakala*, it can understood that in the *Caya*, *Prakopa* and *Prasara Avastha* patient may present with raised blood pressure. In *Sthana Samsraya Avastha* no specific *Purvaroopas* are observed as in *Vata Vyadhi*. In *Vyakta Avastha Lakshanas* generalized *Lakshanas* like *Dourbalya*, *Bhrama*, *Chardi* etc. are manifested. In *Bhedavastha*, it can be understood that there will be the involvement of *Trimarmas* when *Murcha*, *Pakshaghata* etc. manifests (similar to the involvement of the brain, heart and kidneys in hypertensive emergency).

Chikitsa of Hypertension

From the above explained *Samprapti*, it is clear that Hypertension can be treated on the basis of *Vatavyadhi Chikitsa* considering the two *Avasthas* as *Kevala Vatika* and *Avarana Janya Vatavyadhi*.^[8]

Kevala Vatika Chikitsa

In cases of increased Heart Rate, where the *Vyana Vata Karma* is affected, *Kevala Vatika Chikitsa* is to be adopted. One has to adopt *Snehana*, *Swedana* followed by *Mrdu Shodana*. The same treatment has been explained by Acharya Charaka for *Vyana Vata Dushti*.^[9]

Avarana Vata Chikitsa

In conditions where Stroke volume, Peripheral Resistance is affected, *Avarana Vata Chikitsa* can be adopted.

The commonest form of *Avarana* present here is *Doshavarana (Kapha-Pitta Avarana)*. When *Samsargaja Avarana* is present, treat *Pitta Avarana* first, followed by *Kapha* and then *Vata*. In case of *Pittavarana*, go for *Pittaghna Chikitsa* followed by *Vatanulomana* and in case of *Kaphavarana Chikitsa* go for *Kaphagna Chikitsa* followed by *Vatanulomana*. In case of *Raktavarana*, *Vatarakta Chikitsa – Snehana* (oleation), *Snigdha* or *Rooksha Mrdu Virechana* (mild purgation), *Basti karma* (enema), external therapies like *Seka* (pouring of oil or kashaya over the body), *Abhyanga* (oil massage), *Pradeha* (external application), *Avidahi Anna* (foods which does not cause burning sensation or gastric irritation) and *Raktamokshana* (blood-letting) can be applied. In *Medavarana*, *Pramehaghna* (treatment for *Prameha* or diabetes), *Medoroga Chikitsa*, *Anagni Sweda*^[10] and *Vatahara Chikitsa* is to be adopted.^[11]

Some other treatments commonly adopted includes *Shirodhara* and *Takradhara*.

Complications of Hypertension - Ayurvedic understanding

Acharyas have explained the concept of *Trimarmas-Hridaya*, *Shiraand Basti*. These are considered as *Prana Sthanas*. It has also been explained that any

injury or impairment to the *Trimarmas* causes various pathologies.^[12]

While considering the complications of Hypertension, it has been explained that there will be the involvement of Brain (Hypertensive encephalopathy), Heart (Hypertensive cardiomyopathy) and Kidneys (Hypertensive Nephropathy).^[13]

So, we can understand that Hypertensive complications manifests at the levels of *Trimarmas* and the *Chikitsa* for *Marmabhighata* can be adopted here. *Acharya* Charaka has explained individual treatments for the management of *Trimarmas*. *Acharya* has also explained that *Basti* is the main line of treatment for *Trimarmas*.^[11] It has been explained that there are no other treatments similar to *Basti* for the protection of *Trimarmas*.

DISCUSSION

The basic *Avasthas* and the *Lakshana*^[14] observed along with the *Chikitsa* has been discussed here (Table2).

Table 2: Avasthas of hypertension and its Chikitsa.

Condition	Lakshana	Features	Chikitsa
<i>Pittavrta vata</i>	<i>Brama,</i> <i>Daha,</i> <i>Murcha</i>	Giddiness, Vertigo, Fatigue, Insomnia, Anger, Fainting	<i>Seetoshna</i> <i>vyatyasa chikitsa</i> <i>virechana</i> <i>Kshirapana</i> <i>Yapana basti</i>
<i>Kapha Avruta vata</i>	<i>Klama</i> <i>Dourbalya</i> <i>Guruta</i>	Fatigue , Heavyness	<i>Swedana</i> <i>Teekshna niruha</i> <i>basti</i> <i>Teekshna</i> <i>virechana</i>
<i>Rakta Avruta vata</i>	<i>Daha</i> <i>Shoola</i>	Pain Delirium	<i>Virechana</i> <i>Basti , Seka</i> <i>Raktamokshana</i>
<i>Meda</i>	<i>Gourava</i>	Fatigue,	<i>Pramehaghna</i>

<i>Avaruta vata</i>	<i>Shoola Klama</i>	Heavyness	<i>Vatahara Medohara</i>
<i>Kevala vata prakopa</i>	<i>Spandana Shoola Brama</i>	Palpitation Headache Giddiness	<i>Snehana Swedana Mrdu shodhana</i>

Mode of action of each treatment modality in hypertension

1. *Snehana* (oleation therapies - *Bahya* and *Abyantara Snehana*) and *Swedana* (Sudation): helps in removing the *Margavarana*, and also acts as *Vatahara* and *Medohara*.^[10]
2. *Mrdu Virechana* (mild purgation): helps in reducing hypertension by removing the excess *Kledamsha* from the body and thereby pacifying *Kapha* and *Pitta Doshas*.
3. *Basti Chikitsa* (enema): aimed at pacifying the *Dushita Vata*.
4. *Medoroga Chikitsa*: mainly aimed at removing the *Kleda* and *Meda*.
5. *Shirodhara*: Stimulates *Marmas*, causes vasodilatation improving circulation which in turn improves the blood circulation of brain- improving the function of Autonomic Nervous System as its stimulation during stress causes many physiological disturbances. By action on the vasomotor centre it leads to generalized vasodilatation, with the lowering of blood pressure and by depressant action on the cerebral centres, it soothes the general nervous system.
6. *Takradhara*: Acts through the psycho-neuro-immuno-endocrinal axis enhancing the release of serotonin and chemical substance like acetylcholine. Small amounts of acetylcholine causes fall of blood pressure. It helps in relaxing the nervous system and balancing the *Prana Vata* and *Vyana Vata*.^[15]

Analysis of Anti-Hypertensive Drugs

The main pathology involved in the manifestation of Hypertension from the following explanations is the hampering of *Vyana Vata Karma* and the increase in *Kledamsha* caused by *Kapha* and *Pitta*. So the

treatment for these based on the pathology has already been explained. Considering the modern management, we have taken into consideration CCB's, ARB's and ACE inhibitors to have vasodialator action at various levels. For achieving vasodialation, *Swedana*, *Udwartana* as external therapies and also *Hrudya Oushadhi*, *Madhura-Amla Rasa Dravya* for removing the increased *Kledamsha* which corrects the *Vyana Vata Gati* can be used. Beta blockers reduces the Heart Rate and Cardiac Output, so *Hrudya Oushadi* along with *Vyana Vata Chikitsa* has to be adopted. Diuretics causes excess filtration and reduced reabsorption, so *Mutrala* drugs, *Mutra-Mala Virechana* along with *Tikta-Kashaya-Madhura Dravya* may be useful.

Table 3: Showing the analysis of anti-hypertensive medicines.

Modern drug	Mode of action	Ayurvedic treatment
<ul style="list-style-type: none"> Calcium channel blockers Angiotensin Receptor Blockers Angiotensin Converting Enzyme inhibitors 	Vasodilators	<i>Swedana, Udwartana</i> <i>Hrudya, madhura, amla rasa</i>
<ul style="list-style-type: none"> Beta blockers 	↓ Heart rate and Cardiac Output	<i>Hrudya oushadi, Vyana Vata Chikitsa</i>
<ul style="list-style-type: none"> Diuretics 	Excess filtration, reduced reabsorption	<i>Mutrala, Virechana</i> <i>Tikta, Kashaya, Madhura</i>

CONCLUSION

Concept of Hypertension can be understood as a pathology occurring at the levels of *Tridosha (Vata Pradhana)*, *Manasika Dosha (Rajo Guna Pradhana)*

and *Dooshyas (Rasa, Rakta, Medas)*. The same pathology can be appreciated as that of *Vatavyadhi* with *Dhatukshaya (Kevala Vata) and Aavarana* symptomatically. Hence the *Samprati Vighatana* in Hypertension can be achieved by adopting *Kevala Vata* and *Avarana Vata Chikitsa* accordingly. *Hridya* also being the seat of *Sadhaka Pitta*, the involvement of the psychological factors and its role in management should not be ignored.

REFERENCES

1. Sembulingam K, Esentials of Medical physiology, Jaypee Brothers Medical Publishers(P) Ltd, New Delhi, 6th edition, 2012. Pg.no 602
2. Mudgapalli V, Sharan S, Amadi C, Joshi A. Perception of receiving SMS based health messages among hypertensive individuals in urban slums. *Technology and Health Care*. 2016 Jan 1;24(1):57-65.
3. Anchala R, Kannuri NK, Pant H, et al. Hypertension in India: a systematic review and meta-analysis of prevalence, awareness, and control of hypertension. *Journal of Hypertension*. 2014;32(6):1170-1177. doi:10.1097/HJH.000000000000146.
4. Sembulingam K, Esentials of Medical physiology, Jaypee Brothers Medical Publishers(P) Ltd, New Delhi, 6th edition, 2012. Pg.no 614.
5. Sembulingam K, Esentials of Medical physiology, Jaypee Brothers Medical Publishers(P) Ltd, New Delhi, 6th edition, 2012. Pg.no 587.
6. Siddharth N. Shaha, API Textbook of Medicine, The Association of Physicians of India, Mumbai – 400 013, 7th edition, 2003. chapter no-20 Pg-460 (EHT- 452-460, sec- 461-464)
7. Sharangadharaacharya. Commentary Deepika of Tripaty B on Sharangadhara Samhita of Sharangadharaacharya. Purva khanda; chapter 6, verse 1. In: Tripaty B, editor. Sharangadhara Samhita. Varanasi: Chaukhamba Surbharthi Prakashan; 2012.Pg.no 76
8. Vagbhata. Sutrasthana; Ayushkameeya: Chapter 1, Verse 17-21. In: Murthy SKR, editor. English translation of Astanga Hridayam of Vagbhata. Varanasi: Chowkhambha orientalia; 2008. Page no 43-46
9. Agnivesa, Charaka, Cakrapanidatta. Chikitsasthana; *Vatavyadhi* Chikitsaadyaya: Chapter 28, Verse 15-16. In: Sharma RK, Dash B, editors. Charaka Samhita. Varanasi: Chaukhamba Sanskrit Series Office; 2010. Page no 618
10. Vagbhata. Sutrasthana; Swedavidhi: Chapter 17, Verse 28. In: Murthy SKR, editor. English translation of Astanga Hridayam of Vagbhata. Varanasi: Chowkhambha orientalia; 2008. Page no 58.
11. Agnivesa, Charaka, Cakrapanidatta. Sidhisthana; Trimarmeeya Chikitsaadyaya: Chapter 9. Verse 7. Varanasi: Chaukhamba Sanskrit Series Office; 2010. Page no 717
12. Agnivesa, Charaka, Cakrapanidatta. Chikitsasthana; Trimarmeeya Chikitsaadyaya: Chapter 26. Verse 3-4. In: Sharma RK, Dash B, editors. Charaka Samhita. Varanasi: Chaukhamba Sanskrit Series Office; 2010. Page no 468.
13. Aggarwal M, Khan IA. Hypertensive crisis: hypertensive emergencies and urgencies. *Cardiol Clin*. 2006 Feb. 24(1):135-46. [Medline].
14. Rathod MR, Kumar SA (2012) Understanding of Hypertension in Ayurveda. 1:494. doi:10.4172/scientificreports.494
15. Bharati Adarsha Bhikshapati et al, Evaluation of Arjunavachadi yoga in Vyana bala vaishmya (HTN) – a clinical study; JRAS, Vol 27 no. 1-2, 2006 pg: 57.

How to cite this article: Sreelakshmi P, Totad Muttappa, Vasantha B, Yadu N Mooss. Hypertension Vis-à-Vis Vatavyadhi - A Critical Analysis. *J Ayurveda Integr Med Sci* 2017;1:244-248. <http://dx.doi.org/10.21760/jajms.v2i1.7519>

Source of Support: Nil, **Conflict of Interest:** None declared.
