WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 12, Issue 5, 294-299. Review Article ISSN 2277– 7105

A LITRARY REVIEW ON RAKTAGATA VATA W.S.R. HYPERTENSION

Manisha Bai[1]* and Ravi Sharma[2]

[1]PG Scholar, Dept. of Kaya Chikitsa, [2]HOD, Dept. of Kaya Chikitsa,
Madan Mohan Malviya Govt. Ayurved College, Udaipur (RAJ).

Article Received on
23 Jan. 2023,

Revised on 13 Feb. 2023,
Accepted on 03 March 2023

DOI: 10.20959/wjpr20235-27460

***Corresponding Author**
Dr. Manisha Bai
PG Scholar, Dept. of Kaya Chikitsa, Madan Mohan Malviya Govt. Ayurved College, Udaipur (RAJ).

ABSTRACT

Hypertension is correlated with *Rakta Gata Vata* in *Ayurveda* characterized with elevation in blood pressure more than its normal range which is 120 mmHg (systolic) and 80 mmHg (diastolic). Hypertension effect the normal function of heart, kidney, brain and eyes etc. As per *Ayurveda* hypertension is caused by disturbance of *tridoshas* including *Vyan vata*, *Avalambak kapha*, and *Sadhak pitta*. Hypertension is caused by *tridosha parakopaka nidans* like as sendantary lifestyle, faulty diet habits, pshychological stress, and genetic predisposition. In this article tried to explained hypertension according to modern as well as ayurveda.

KEYWORDS: *Vyan Vayu, Rakta Gata Vata*, Hypertension, *Tridoshas.*

INTRODUCTION

Ayurveda stands out in the modern era of medical specialties and super specialties because of its holistic perspective on the body as a single organism. When viewed independently, the body is challenging to understand because all of its components coexist while being interdependent and interacting with one another. Humanity has recently started to understand the multidimensional components of body, mind, and spirit that *Ayurveda* taught thousands of years ago as part of a holistic approach to healing.[1]

Many scholars refers to different name for hypertension like as *Rakta gata vata, Siragata vata, Dhamani prapurana, Rakta vikshepa, Vyana prakopa, Aavrita vata, Raktamada, Uchchha Raktchap, Vyana atibala.*[2] Different viewpoints have been expressed in relation to each of these terms, but no one has disputed the fact that the main pathophysiology of

hypertension also affects the blood vessels and *Rakta*. Numerous authors before having provided different perspectives on the *Ayurvedic* pathophysiology of this ailment because this is the one factor that they have in common. Given how far contemporary science has come in understanding hypertension, it is essential that we comprehend everything we currently know about this condition and appropriately tie it to *Ayurvedic* principles.

1. *Ayurvedic* view of blood pressure

The blood is initially discharged from the heart, disseminated to all parts of the body, and then returned to the heart through blood veins known in *Ayurveda* as "*Sirah*[3]" The *Samana Vata's* role regulates the return of *Rasa* (blood) towards the heart. As is well knowledge, blood pressure is the lateral pressure that blood flow exerts on artery walls. Systolic and diastolic blood pressure are the two halves of blood pressure. The SA node, the heart's pacemaker, produces electrical impulses on its own and causes the heart to contract during the systole. The *Vata Dosha*, namely the *Vyana Vata*, which is located in the heart and is in charge of blood circulation, can be credited with the functioning of the heart's self-excitatory function. Thus, it may be claimed that Vata regulates the systolic blood pressure reached during heart contraction (*Vyana Vata*). Although the SA node produces impulses on its own, the autonomic nervous system regulates the rate of this impulse production through sympathetic and parasympathetic nerve fibres that emerge from the brain. Heart rate is governed by the *Prana Vata*, which is located in the *Moordha* (Brain) [*Ashtanga Hridaya, Sutra Sthana, 12/4*] and governs the *Hridaya* (heart) and performs *Dhamani Dharana* (arterial perpetuation).[4] Because *Vata*, in general, refers to all neural mechanisms, it may be recognised that *Vyana Vata* and *Prana Vata* refer to the neuronal control of circulation in this context. When the cardiac muscles relax, diastole is reached. In this case, there is no active push by the heart; rather, diastolic blood pressure is solely caused by blood passing through the constrictive structures of the heart chambers and arteries. As a result, diastolic blood pressure can be considered to be under the control of the *Avalambaka Kapha Dosha* (*Kapha* maintains the structural integrity of body organs) [*Ashtanga Hridaya, Sutra Sthana, 12/15*]. This is because the resistance provided by the heart's and blood vessels' structure regulates diastolic blood pressure. Thus, the diastolic blood pressure is determined by the peripheral resistance that blood faces in the blood arteries. The key factors affecting this are the blood vessels' flexibility and diameter, which fall under the jurisdiction of the *Kapha Dosha*. The autonomic nervous system, which regulates vascular tone as well, modifies the diameter of arteries as needed.[5]

Dhamani Dharana [*Asthanga Samgraha, Sutra Sthana, 20/2*] is a function of *Prana Vata*, the peripheral resistance provided by the arteries as a result of vasoconstriction brought on by sympathetic nerve action can also be interpreted as a function of *Prana Vata*. The rapid influx of Na and Ca ions and efflux of K ions through the membrane of the SA node is what causes the action potential that causes the heart's autorhythmicity. Due to *Pitta's Tikshna* (rapidity), *Drava* (fluidity), and *Sara* (diffusion/ dispersion) *Guna,* [*Asthanga Samgraha, Sutra Sthana,* 1/26] primarily *Sadhaka Pitta* placed in the heart, the involvement of these chemical ions can be taken under the purview of *Pitta*.

2. Blood pressure Regulation and The role of *tridosha*

Many processes in the body control blood pressure. Long-term renal, hormonal, and local vascular mechanisms in addition to short-term neural factors.

Short term regulation of blood pressure is by

Short-term mechanisms include the nervous system, which is managed by the brain's vasomotor centre through autonomic activation via baro-receptors and input from chemosensors. This *Vata* function, often *Prana Vata*, in the CNS that controls blood pressure can be primarily comprehended (taking the help of *Kapha* in case of Baro-receptors and *Pitta* in case of Chemoreceptors).

Long term regulation of blood pressure is by

A. In order to reduce the blood volume and control blood pressure, the kidneys expel water and sodium through urine (*Kleda nirvahanam*) (*Asthanga Samgraha, Sutra Sthana*, 19/20). According to the function of *Apana Vata*, this mechanism can be linked to the removal of *Kapha* in the form of *Kleda* [*Asthanga Samgraha, Sutra Sthana, 20/2*].
B. In reaction to low blood pressure, the kidneys release renin, which causes the release of angiotensin II, which causes vasoconstriction, faulty sodium and water balance, and an increase in blood pressure.[6] This can be ascribed to *Pitta's* role in the body.

Etiological risk factors related to hypertension

Essential hypertension has no known causes, although a number of genetic and environmental factors, as well as how they interact, raise the chance of developing the disorder.[7] These factors are: high salt and spicy food intake, alcohol consumption and use of tobacco, low Calcium and Potassium intake, psychological stress, heredity, intake of fatty food which causes obesity and hyperlipidemia leading to atherosclerosis in blood vessels and

physical inactivity (sedentary lifestyle).[8] Among these, high salt and spicy food, alcohol consumption, use of tobacco, low Calcium and Potassium intake and psychological stress may vitiate *Pitta, Vata* and *Rakta*, while physical inactivity, dullness and habitual intake of fatty foods are *Kapha* and *Medovardhaka Nidanas* (etiological factors increasing fat) [*Charaka Samhita, Sutra Sthana, 21/4*]. Family history (heredity) is due to *Beeja dosha* (genetic defects). Most of these *Nidanas* are mentioned together as *Rakta Dusti Karana* by *Charaka* in the *Vidhishonitiya Adhyaya* [*Charaka Samhita, Sutra Sthana*,] and in the context of *Pittaja Hridroga* [*Charaka Samhita, Sutra Sthana*, 17/32].

Management of hypertension

- *Nidana Parivarjan*
- *Samshodhana chikikitsa*
- *Shamana chikikitsa*
- *Yoga Therapy*
- Lifestyle modifications

Nidana parivarjan

Nidana parivarjana refers to the avoidance of etiological variables such as excessive salt, fat, smoking, and hot food intakes, as well as the needless use of medications like steroids and narcotics. It is advised to avoid leading a sedentary lifestyle and to engage in regular exercises, meditation, etc.

Samshodhana chikikitsa

Lekhana Vasti, Virechana Karma, Shirodhara, and massage therapies help manage hypertension by detoxifying the body, balancing the circulatory system, removing vitiated Doshas, and controlling psychological stress.

Shamana chikikitsa

Ayurvedic medicines including *Sarpagandha, Ashvagandha, Jatamansi, Arjuna*, and *Rasona*, among others, provide relief in cases of hypertension because they keep the heart beating, regulate blood sugar, control circulation, and calm vitiated doshas, all of which contribute to lowering blood pressure. Also advised for the therapy of hypertension are *Ayurvedic* preparations including *Sarpagandha ghana vati, Prabhakara vati, Arjunarishta, Abhayarisha*, and *Hridayarnava rasa.*

Yoga therapy

Under the direction of a professional, yoga therapy aids in the control of hypertension. There are many asanas that can help with hypertension, including *Shavasana, Bhujangasana, Gomukhasana, Pavanmuktasana*, and *Katichakrasana.*

Lifestyle modifications

- Intake of potassium and calcium
- Meditation and prayer
- Eating fresh fruits with low carbohydrate content and green vegetables
- Avoiding daytime sleep, anxiety, anger, and stress
- Avoiding use of caffeine, tobacco, and alcohol.
- Weight maintenance with a low fat diet and exercise (Morning walks and jogging).

CONCLUSION

The pathological condition known as hypertension is defined as an increase in blood pressure above the usual range of 120/80 mmHg. Among other organs, hypertension can harm the heart, kidneys, brain, and eyes. Blood pressure can be raised by sedentary lifestyle, genetics, psychological issues, an unbalanced diet, etc. According to ayurveda, the vitiation of Rakta, Vyana Vata, Avalambaka Kapha, and Sadhaka Pitta can cause hypertension symptoms. Rakta Gata Vata or Vyanabala Vaishamya were pathological illnesses according to Ayurveda that shared symptoms with hypertension. Many therapeutic methods, such as Nidana Parivarjan, Samshodhana Chikikitsa, Shamana therapy, Yoga Therapy, and lifestyle changes, can be used to manage hypertension. They all work to lower blood pressure, which helps to prevent further hypertension-related consequences like stroke, ischemia, renal failure, and retinopathy, among others.

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