

A CASE STUDY ON ESSENTIAL HYPERTENSION MANAGING THROUGH AYURVEDA W.S.R. RAKTAGATA VYAN VAISHAMYA

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ABSTRACT

Essential hypertension is high blood pressure that doesn't have any known etiopathology. Most of sufferers (85%) are asymptomatic and as per available reports, in more than 95% cases of hypertension under lying cause is not found. It is estimated that 600 million people are affected worldwide. Hypertension is a major risk factor for the development of cardiovascular diseases (CVD). Its impact is greatest on stroke, MI and end stage is renal failure as it's known as a Silent Killer. Hence there is no direct reference of hypertension in Ayurvedic classics by name as well as by its path physiological views. Many works have been carried out on hypertension to evaluate the perfect diagnosis and mode of treatment on the basis of Different nomenclatures also have been adopted by *Ayurveda* experts like *Raktagata Vata*, *Raktagata Vyana Vaisamyia*, *Uccha Rakta Chapa*, *Raktavrita Vata*, *Siragata Vata* etc.

Keywords: Essential hypertension, *Raktagata Vyana Vaisamyia*, *Uccha Rakta Chapa*, Cardiovascular diseases, Silent Killer.

INTRODUCTION

Essential hypertension is high blood pressure that doesn't have any known etiopathology. As most of the patients suffering from a normally elevated blood pressure are asymptomatic, diagnosis is either

missed or delayed. Essential hypertension is an instrumental disease which is the recent diagnostic invention of modern science. In essential hypertension different views have been adopted, but

no one has denied the fact that in *Raktagata Vyana Vaisamy* because the main pathogenesis occurs in *Rasa* and *Rakta dhatu* in blood vessels with the alteration in all the three *Doshas*. Common abnormalities are elevated lipid profile level, uremia, proteinuria, elevated FBS and PPBS level, abnormal ECG etc.

Case Report

A 54-Year-old male patient came to *Kayachikitsa* OPD of Govt. *Ayurveda* Hosital, *Motichohta*, *Udaipur* associated with *M.M.M. Govt. Ayurveda* College, *Udaipur*, with the chief complain of dizziness since 5 days with no other symptoms. Hypertension was diagnosed 6 years ago when blood pressure measured on the routine check-up around 174/100 mm Hg on three occasions and a pulse of 84 bpm. Patient was initially treated with Amlodipine 5 mg daily for 3 years than shifted to the combination of Losartan 50 mg and Hydrochlorothiazide 12.5 mg. Yet his BP control had fluctuated. His family history is positive for Hypertension. Physical assessment is unremarkable except for the presence of moderate obesity (5'7" & 92 kg.) and minimal varicose veins. Other laboratory investigations and vital signs were

abnormal as he had hypercholestrolemia and high serum creatinine level from past 2 year.

Vitals before Treatment:

Blood pressure- 174/100 mmHg

Pulse Rate- 84/ minute

Temperature- 98.9 F, Afebrile

Respiratory Rate- 22/ minute

Others- Oedema, pallor, icterus, lymphadenopathy absent

General condition – Normal

Systemic Examination:

Rest of the systemic examination did not reveal any significant abnormality.

Dashvidh Pariksha:

1. *Prakriti- Pitta-Kaphaj*
2. *Vikriti-Vata-pitta*
3. *Saar-Meda*
4. *Samhanan- Madhyama*
5. *Satmaya- Vyamishra*
6. *Satva-Pravara*
7. *Pramaan-Madhyama*
8. *Aahar Sakti-Madhyama*
9. *Vyayaam Shakti-Pravara*
10. *Vaya-Prodhavastha*

H/O Past Illness:

NAD

Table 1: Drug Administration:

| S.No. | Drug Name | Dose | Anupaan/Sahpaan | Days | Time | Specific |
|-------|------------------------------|-------|------------------------------|------|------|--------------|
| 1 | <i>Sarpagandha Ghan Vati</i> | 500mg | Water | 60 | BD | AF |
| 2 | <i>Arjun Twak Choorna</i> | 10gm | Milk (As <i>Kheer Paak</i>) | 60 | OD | In Breakfast |
| 3 | <i>Trinpanchmoola Kwath</i> | 15ml | Lukewarm Water | 60 | BD | BF |
| 4 | <i>Punarnavasava</i> | 15ml | Lukewarm Water | 60 | BD | BF |
| 5 | <i>Gokshuradi Guggulu</i> | 500mg | Water | 60 | BD | AF |
| 6 | <i>Chandraprabha Vati</i> | 250mg | Honey | 60 | BD | AF |

We gave mild purgation with *Erand* oil 50ml with hot milk on 1st day. Patient had been followed up every 10 days for 2 months.

Table 2: Laboratory Investigation

| S.No. | Biochemical Parameters | Before Treatment | After Treatment |
|-------|------------------------|------------------|-----------------|
| 1 | S. Cholesterol | 226 mg/dl | 178 mg/dl |
| 2 | Triglyceride | 158 mg/dl | 144 mg/dl |
| 3 | HDL | 38 mg/dl | 42 mg/dl |
| 4 | LDL | 142 mg/dl | 124 mg/dl |
| 5 | VLDL | 36 mg/dl | 28 mg/dl |
| 6 | Blood Urea | 38.4 mg/dl | 26.6 mg/dl |
| 7 | S. Creatinine | 2.1 mg/dl | 1.2 mg/dl |
| 8 | Uric Acid | 7.4 mg/dl | 5.8 mg/dl |

Table 3: Vitals During treatment

| S. No. | Variables | 0 day | 10 day | 20 day | 30 day | 40 day | 50 day | 60 day |
|--------|---|---------|--------|--------|--------|--------|--------|--------|
| 1 | Blood pressure (SystolisBP /Diastolic BP in mmHg) | 174/100 | 166/94 | 154/92 | 146/88 | 134/84 | 128/82 | 118/78 |
| 2 | Pulse rate (bpm) | 84 | 82 | 78 | 80 | 74 | 72 | 72 |
| 3 | Pulse Pressure (in mmHg) | 74 | 70 | 62 | 58 | 50 | 46 | 40 |
| 4 | Respiratory Rate (per Minute) | 22 | 20 | 22 | 18 | 18 | 20 | 18 |

DISCUSSION

The disease Essential Hypertension has no such clear-cut reference in *Ayurvedic* texts. But from compilation of scattered references it is concluded that, EHT is a *Vata pradhana Tridoshaja Vyadhi*. These vitiated *Doshas* leads to vitiation of *Rasavaha*, *Raktavaha* and *Manovaha srotas*. *Rasa* and *Rakta* are the chief culprits which associated with vitiation of psychological factors i.e. *Raja* and *Tama*. The main pathology occurs in *Rasa-Rakta Dhātu*. As the *Adhithana* of the disease is *Hridaya*. The line of *Ayurvedic* management of *Raktagata Vyana Vaisamy* is application of *Sarpagandha Ghan Vati*, *Arjun Twak Choorna*(as *Kher Paka*), *Trinpanchmoola Kwath*, *Punarnavasava*, *Gokshuradi Giggulu*, *Chandraparbha Vati* with the modification in normal diet to DASH Diet (Dietary Approach to Stop Hypertension) and motivate to do *Yogaasan* in daily schedule like *Surya Namaskar*, *Sawasan*, *Pranayam*, *Anulom-Vilom* and *Meditation*. Which are *Shada-Indriya Prasadana*, *Preenana*, *Vata Pitta Shamaka*, *Hridya*, *Mutral*, *Virechak*, *Daha-Murccha Prashamana*, *Nidra janak* etc.

Raktagata Vyana Vaishmya is *Vata Pradhana Tridoshaja Vyadhi* so being *Vata Pitta Shamaka* it helped in *Samprapti Vighatana*. *Sarpagandha Ghan Vati* has *Tikta Rasa*, *Ruksha guna*, *Ushna Veerya* and *Katu Vipaka* all helps in *Samprapti Vighatana* of *Raktagata Vyana Vaishmya*. By *Nidrajanaka Prabhava* it helps in reducing the mental stress, Giddiness, Cardiac Palpitations etc. *Sarpagandha* has itself work as a bronchodilator that gives immediate hypotensive activity. The Indian political leader *Mahatma Gandhi* was known to employ *Rauwolfia*, reportedly using the root to make a tea that he consumed in the evening to help relax after a busy day.

Most of the studies, both experimental and clinical, have suggested that the crude drug possesses anti-ischemic, antioxidant, hypolipidemic, and

antiatherogenic activities. Its useful phytoconstituents are: Triterpenoids, β -sitosterol, flavonoids, and glycosides. Triterpenoids and flavonoids are considered to be responsible for its beneficial antioxidant cardiovascular properties. The drug has shown promising effect on ischemic cardiomyopathy. So far, no serious side effects have been reported with *Arjuna* therapy. However, its long-term safety still remains to be elucidated. Though it has been found quite useful in angina pectoris, mild hypertension, and dyslipidemia, its exact role in primary/secondary coronary prevention is yet to be explored. Animal experiments have demonstrated that *Arjuna* bark powder/extract reduces the total cholesterol (TC) and triglyceride (TG) levels.

Further, it along with *Gokshuradi Guggulu*, *Trinpanchamoola Kwatha*, *Punarnavasava* and *Chandraprabha Vati* not only reduced the fluid overload due to renal impairment by diuretic action but also strengthen the renal and cardiac systems.

Hypoxanthine and boeravinones which are active antihypertensive agents of *Punarnava* acts as Ca^{+2} channel antagonist. It also acts as diuretic by increasing renal blood flow by relaxing the smooth muscles of the arterial wall.

Gokshura had a significant action in reduction of clinical symptoms, systolic and diastolic blood pressure without any side effects on the patients of mild to moderate essential hypertension. Therefore, this plant diuretic can be safely recommended for a longer period to the patients of mild to moderate hypertension.

These results significantly show that *Chandraprabha Vati* (CV) can function as a diuretic as claimed in *Ayurvedic* medicine and acts via multiple mechanisms (Osmotic, thiazide, potassium sparing, loop diuretic and promoting glomerular filtration rate). It is concluded that, CV can as function as potent, safe diuretic as claimed in

Ayurvedic medicine. Further, it is used in several clinical conditions such as obesity, diabetes mellitus, skin infections, gastrointestinal disorders, impotency, pre-mature aging and urinary tract diseases. CV induced a marked and significant increase by glomerular filtration rate as creatinine clearance.

CONCLUSION

Vata is the main causative factor for Hypertension as per Ayurved. It may be due to obstruction of Pitta or Kapha Avarana. Sarpagandha Ghan Vati, Arjun Twak Kheer Paak, Gokshuradi Guggulu, Trinpanchamoola Kwatha, Punarnavasava and Chandraprabha vati are the useful medicine in Hypertension. As many interventions are used in this case, so it is difficult to understand by which intervention patient got relief but all are work as a black box intervention as cardio protective, vasodilator, antioxidant, diuretic, Ca²⁺ channel antagonist Purgative, Reno protective and mental stress reliever. Patient got significant relief. Large scale clinical trial should be done to establish it as general treatment for Hypertension.

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