



Research Article

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EFFICACY OF AN AYURVEDIC INTERVENTION IN THE MANAGEMENT OF HYPERTENSION: A CASE STUDY

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ABSTRACT

In the present era, Hypertension is a global health issue affecting the people throughout the world due to life style, stress and dietary habits. It is a non-communicable disorder which can affect the life and a causative factor of coronary vascular diseases like myocardial infarction and stroke. Approximately 40 % of the urban population and 18% rural population are suffering of this ailment throughout the world. Currently, a number of anti-hypertensive drugs are available to control hypertension but due to long term or lifelong application and adverse effect, a safe and economically management is require. Ayurvedic approach to pathogenesis of hypertension can provide the solution to rising cases of this illness. Objective: To assess the clinical efficacy of *Sootshekhar ras* along with *Akik pisti* in the management of essential hypertension using with clinical symptoms and laboratory investigations. Material and Method: It was a single case study. *Sootshekhar ras* 250 mg and *Akik pisti* 250 mg twice in a day with water for 21 days were used. Results: Clinical symptoms were reduced and laboratory parameters were significantly changed from baseline to end of the treatment.

Keywords: Hypertension, *Vyanbal vaishmya*, Ayurved medicine, *Sootshekhar ras*, *Akik pisti*

INTRODUCTION

Hypertension is a health issue distressing the mankind throughout the globe. It is a condition in which the blood pressure is chronically elevated i.e. 140/90 mm Hg or higher. Elevated level of blood pressure correlate directly with the risk of developing cardio vascular disorders (CVD) and stroke leading to mortality. As per World Health Organization (WHO), the incidence of hypertension in urban population is around 40% and rural around 18%. Basically Hypertension is classified as Primary or essential Hypertension and Secondary Hypertension. Most of the cases are categorized as primary Hypertension. Primary Hypertension is originated of unknown cause in allopathic system of medicine.

However, the changes in social and economic conditions, life style, dietary habits and an increasing stress and strain in producing the livelihood have increased the prevalence of this disease. In Ayurvedic classics, Hypertension term is not mentioned, but on the basis of its symptomatology is found in the chapters of *Vata vyadhi*, *Prameha*, *Hridayaroga*. It's correlated with *Vyanabala vaishmya* i.e. *vikriti* (abnormality) of *vyan vayu* (a subtype of *vata*, that is situated in cardiac region). In the pathogenesis of hypertension, *vyanvayu* along with *prana* and *apana vayu* get affected¹. Basically, It is considered in *doshaja nanatmaja vikara* (symptoms due to disequilibrium of three regulatory functional factors of the body) like *Hridravata* (tachycardia), *Shiroruk* (headache), *Lalat bhed* (frontal headache), *Vakshatod* (pectoralgia), *Vakshoparodha* (chest tightness), *Bhrama* (giddiness), *Vepathu* (tremor) etc.

Number of antihypertensive drugs available in allopathic medicine which control the blood pressure and prevent the risk of CVD. *Sarpagandha* (*Rauwolfia serpentina*) is a popular Ayurvedic plant drug among the scientists as Antihypertensive²⁻⁶. In the present study, a classical Ayurvedic formulations *Sootshekhar ras*⁷ and *Akik pisti*⁸ used as an antihypertensive drug

for the elevated blood pressure and associated symptoms of primary hypertension.

CASE STUDY

A 38 years old female patient who was normal before three months develop symptoms like headache, palpitation, vertigo, heaviness at chest area and nausea. Three months before when she was suffering these symptoms, she was gone to the general physician clinic who has diagnosed, essential hypertension and he was prescribed antihypertensive medicines i.e. Amlodipine. She had taken the medicine for two months but did not get relief, after that she came to outpatient department (OPD) of Regional Ayurveda research institute for Ayurvedic treatment. The registration no. was 1213 dated 19.06.2018. The patient was complaints of headache, palpitation, vertigo, nausea, burning in chest and stomach. After taking the detailed history, the consent was taken from the subject and study was in accordance with ICH GCP guidelines.

General examination

Pulse: 114/min
Respiratory rate: 26/ min
Blood pressure: 170/114 mm of Hg
Temperature: 98.6 ° f
General condition: Poor

Systemic examination

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

Dashavidhpariksha (ten important aspects for examination)

- *Prakriti- Vat pittaj*
- *Vikriti- Pitta*
- *Sara- Meda*
- *Samhanan-Madhyam*

- *Satmya- Vyamishra*
- *Satwa-Avara*
- *Praman-Madhyam*
- *Ahara shakti-Avar*
- *Vyayam shakti-Avar*
- *Vaya- Yuvavastha*

Probable diagnosis: *Vyanbal vaishmya* (Primary or Essential hypertension)

INTERVENTION

The treatment was carried out with the following medicines (**Table 1**) for 21 days with follow up every 07 days. During this period, intake of routine food and avoid excess salt intake, spicy food was strictly follow up.

Table 1: Drug and Posology

SN	Name of medicine	Doses	Ingredient	Reference
1.	<i>Soot shekhar ras</i> (powder)	250mg BD for 21days	<i>Shuddha Parada</i> (purified Mercury), <i>Tankana Bhasma</i> (purified Borax), <i>Shuddha Vatsanabha</i> (purified <i>Aconitum ferox</i>), <i>Shunti</i> (<i>Zingiber officinalis</i>), <i>Maricha</i> (<i>Piper nigrum</i>), <i>Pippali</i> (<i>Piper longum</i>), <i>Datura</i> (<i>Datura metel</i>), <i>Gandhaka</i> (purified Sulphur), <i>Tamra Bhasma</i> (herbal purified powder from Copper), <i>Ela</i> (<i>Elettaria cardamomum</i>), <i>Twak</i> (<i>Cinnamomum zeylanicum</i>), <i>Patra</i> (<i>Cinnamomum tamala</i>), <i>Nagakeshara</i> (<i>Mesua ferrea</i>), <i>Shankha Bhasma</i> (herbal purified Conch Shell), <i>Bilva</i> (<i>Aegle marmelos</i>), <i>Kachura</i> (<i>Curcuma zedoaria</i>) and Juice extract of <i>Bhringaraja</i> (<i>Eclipta alba</i>).	Yogaratakara Amlapitta Chikitsa 705, Ayurvedic Formulary of India Vol. 1, 20:52
2.	<i>Akik pisti</i> (powder)	250mg BD for 21days	<i>Akik</i> (Cryptocrystalline silica) powder, Aloe vera juice extract, juice extract of <i>Ketaki</i> (<i>Pandanus odoratissimus</i>), <i>Jalapipali</i> (<i>Phyllanthus nodiflora</i>) juice.	Ayurvedic Pharmacopoeia of India, Part 2 Vol 3, 1st edition

Table 2: Investigation carried out for assessment

Bio chemical and radiological parameters	At the starting of the treatment	At the end of the treatment
S. Cholesterol	178 mg/dl	175 mg/dl
Triglycerides	157 mg/dl	164 mg/dl
HDL	42 mg/dl	42 mg/dl
LDL	113 mg/dl	116 mg/dl
VLDL	31 mg/dl	33 mg/dl

OBSERVATION AND RESULT

During the first visit of treatment along with Ayurvedic intervention, conventional antihypertensive drug was continued as BP was high. After a week patient came to the OPD as follow up, conventional antihypertensive drug, which was prescribed previously by other physician, where patient has taken treatment, was tapered down and stopped. After that patient was registered for Ayurvedic treatment. The treatment was used for 21 days with every 7th day follow up. After first follow up blood pressure had come to nearly normal i.e. 120/80 mmHg and pulse rate also comes to 84 per minute and headache, palpitation, vertigo, heaviness at chest area and nausea symptoms had disappeared. The patient had followed the diet and restrictions as advised.

DISCUSSION

In the present era number of options for treatment of Hypertension. World Health Organization has accentuated development and utilization of herbal drugs and traditional medicines. The organization has accessed that about 80% of the population of developing countries is depend on these medicines⁹. According to Ayurveda, essential hypertension is similar to *Vyanbala vaishmya*. The disease *Vyanbal vaishmya* seems to be resulted from the *vaisamyam* of *vyanavata*. *Vata* is a unique *dosha*, which regulates and is responsible for the movement of other two *pitta* and *kapha doshas*. As the *vyanavata* is responsible for the movement of *rasa rakta dhatu*. Obstruction and accumulation in the circulation of *Rakta dhatu* may barriers for the movement of *vyanavayu*, which produce increased force in the wall of the channels during its course of movement to circulate *rasarakta dhatu* throughout the body. The appearance of the hypertension, the *vyanavayu* and *pitta dosha* are the major contributing factor, which gives the nucleus for the pathogenesis. Vitiated *vata* disturbed the blood circulation and aggravated *pitta* produce giddiness, burning sensation, sweating, and abdominal pain.

*Sootshekhar ras*¹⁰ due to its content has potent effect in the treatment of acid peptic disorders, dyspepsia, gastritis, vomiting, abdominal colic, diarrhoea, dysentery, hemorrhage, mental disorders, cardiac disorders and circulatory disorders. Its action helps in maintaining of digestion and primary hypertension. *Akik Pisti*¹⁰ acts as cardiac tonic, *pitta* related disorders, heart burn, headache, vision and infection related eye disorders. Collective mode of action of intervention are pacification of *pitta*, relieves constipation, appetizer, digestive which gives patient symptomatic relief in burning in chest, burning in stomach, giddiness, constipation and headache.

CONCLUSION

On the basis of our clinical observation, it is concluded that the trialed intervention is safe and effective without producing adverse effects in the management of Essential hypertension due to their pharmacodynamics action i.e. *pittashamak*, digestive properties.

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