



Indian Journal of Agriculture and Allied Sciences

A Refereed Research Journal

ISSN 2395-1109

e-ISSN 2455-9709

Volume: 2, No.: 2, Year: 2016

www.mrfsw.org

Received: 16.06.2016, Accepted: 26.06.2016

APPLIED ASPECT OF BODHIVRIKSHAKWATHAPANA IN ESSENTIAL HYPERTENSION—A PILOT STUDY

Nidhi Chaudhary¹ and Alok Kumar Srivastava²

¹PG Scholar and ²Associate Professor, Panchakarma Department, Rishikul Campus, Haridwar (UAU), Corresponding Author: Nidhi Chaudhary

Abstract

Introduction: High blood pressure (BP) is ranked as the third most important risk factor for attributable burden of disease in south Asia. Hypertension (HTN) exerts a substantial public health burden on cardiovascular health status and healthcare systems in India. HTN is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease (CHD) deaths in India. The WHO rates HTN as one of the most important causes of premature death worldwide.

Aim: To evaluate the clinical effect of Bodhivriksha Kwathpana in Essential Hypertension.

Materials and Methods: Case study of 10 patients presented common features of anxiety, vertigo, headache and measured repeating noting of BP >130 mmHg without any System involvement. They were diagnosed as Essential Hypertension. They were treated with Bodhivriksha Kwath Pana orally 40 ml BD for one month and results were evaluated after one month of treatment.

Conclusion: Bodhivriksha Panawas found to be very effective and miraculous in bringing blood pressure in normal range.

Keywords: Essential Hypertension (HTN), WHO, Bodhivriksha Kwath Pana.

Introduction: Hypertension is an important public health challenge in both economically developing and developed countries. ^[1] It is becoming an increasingly common health problem because of increasing longevity and prevalence of contributing factors such as obesity, physical inactivity and an unhealthy diet ^[2]. The current prevalence of hypertension in many developing countries, particularly in urban societies, is reported to be already as high as is seen in developed countries ^[3]. The prevalence of hypertension is expected to increase even further in the absence of broad and effective preventive measures ^[4].

Increase in HTN with advancing age was shown by six studies ^[5]. It is being observed that close to a two-fold increase in risk for HTN among Indians when they smoked ^[6] orally consumed khaini and tobacco ^[7], had large amount of salt intake in their food ^[8], had a sedentary lifestyle ^[9], were centrally obese ^[10], had BMI at least 25 ^[11], and consumed alcohol ^[12]. The disease Essential Hypertension (EHT) is neither denoted in Samhita nor in any Samgraha

Granthas, as it is stated that every disease cannot be given nomenclature ^[13].

Essential Hypertension-Ayurvedic Outlook: As Term Essential Hypertension term was never used in Samhita, though its depiction is hard and impossible to find in Ayurvedic Texts, but based on Symptoms Rakta Pradoshaja Vikara can be co-related at certain level and can be categorise as Vata Pitta Pradhana Rakta Pradoshaja Vikara. Talking about Treatment part,

शोणितेनावृते कुर्याद् वातशोणितकी क्रियाम् ^[17]

If Vata is occluded by Raktadhatu and vitiation of vata and rakta lead to Raktavritta. In this case, the treatment would be same as indicated in Vata Rakta (Gout). On Comparison of etiological factors ^[18], symptoms & complications ^[19] with Raktapradoshajavikara with that of essential Hypertension a striking similarity was revealed. On the Basis of Classical Text, Acharya Caraka has mentioned the use of Bodhivriksha Kwatha in the management of Vata Rakta ^[19].

बेधिवृक्ष कषायं तु प्रपिबेत् मधुना सह।
वातरक्तं जयति आशु त्रिदोषमपि दारुणम् ॥ ^[20]

From, above we can hypothetically correlate the treatment of *Vata Rakta* to the treatment of *Raktavritta Vata* (EHTN).

Materials and Methods

The patients were selected randomly from Outdoor Patient Department (OPD) and Indoor Patient Department (IPD) of Panchakarma Department, Rishikul Campus, Uttarakhand Ayurved University, irrespective of gender, caste, religion, occupation, etc.

Inclusion Criteria: Criteria for the selection of the patients were based on the criteria suggested by WHO and JNC-VII (2003). Patients between the aged 20 to 60 years were included.

Exclusion Criteria: Ischaemic Heart Disease (IHD), Congestive Heart Disease (CHD), Coronary Artery Disease (CAD), coarctation of aorta, renal failure, endocrine diseases, hypertension with cerebral complications, e.g. hypertensive encephalopathy, cerebral haemorrhage, convulsive seizure, and patients having systolic BP more than 180 mm Hg and diastolic pressure more than 110 mm Hg

Investigations

A. Scoring pattern for assessment of BP ^[21]

Systolic Blood Pressure	Diastolic Blood Pressure	Score
120>optimal	80> Optimal	0
130> normal	85> Normal	1
130-139 High-normal	85-89 High-normal	2
140-159 Stage 1 hypertension	90-99 Stage 1 hypertension	3
160-179 Stage 2 hypertension	100-109 Stage 2 hypertension	4

Statistical Analysis: Paired T Test, used for the sample size less than 30. To assess difference in before treatment and after treatment.

Assessment on Basis of Systolic and Diastolic Blood Pressure Level

1. Controlled patients having blood pressure levels within normal limit

1. Routine hematological investigations— haemoglobin %, Total Leucocyte Count (TLC), Differential Leucocyte Count (DLC), Erythrocyte Sedimentation Rate (ESR),
2. Biochemical parameters—blood urea, serum creatinine, serum cholesterol, triglyceride, High-Density Lipoprotein (HDL), fasting and postprandial blood sugar
3. Routine and Microscopic urine examination
4. ECG and X-Ray, where ever required.

Group of Treatment: Single Group study

Sample Size: Total 10 patients

Study Period: Complete duration of one month

Follow Up: Review after 15 days

Preparation of Medicine

1. Bodhi Vriksha (*Ficus religiosa*) Kwath
 - Dry Bodhibriksha (Ashwattha) panchaga=1 part
 - Water = 4 parts
 - Remaining part = ¼th

Dose: Amount of *Bodhi Vriksha Kwath Pana* is 40 ml twice a day before meal.

Criteria for Assessment

1. Marked relief blood pressure level improved by 75% than before treatment
2. Moderate relief blood pressure level improved by 50-74% than before treatment
3. Mild relief blood pressure level improved by 25-49% than before treatment
4. No relief blood pressure level not improved or improved by <25% than before treatment

B. Scoring Pattern for the assessment of Sign and Symptoms

Sign & Symptom	Score
KLAMA	
Nil	0
Rarely feeling of tiredness without any exertion	1
Rarely feeling of tiredness without any exertion with inability in concentration	2
Frequently feeling of tiredness without any exertion with inability in concentration	3
Continuous feeling of tiredness without any exertion with inability in concentration	4
ARATI	
Nil	0
Rarely irritation of mind, by major provocation and for very short duration	1
Rarely irritation of mind by moderate to major provocation for long duration	2
Often irritation of mind by mild to major provocation for short duration	3
Continuous irritation of mind by any provocation	4
BHRAMA	
Nil	0
Rarely Bhrama for some movement during change of posture	1
Often for some movement during change of posture	2
Often for each movement even in lying condition also	3
Patient unable to hold himself without any support	4

Assessment on the Basis of Relief in Complaints

1. Controlled 100% relief in complaints
2. Marked relief 75% relief in complaints
3. Moderate relief 50-74% relief in complaints
4. Mild relief 25-49% relief in complaints
5. No relief <25% relief in complaints

Observations and Results: In this study, all the patients were in the age group of 20-60 years. However, majority of the patients (8) were between 41 to 60 years of age. Majority of the patients (6) were females, and (4) were males. Out of 10 Patients, 6 were having *Vata-Pitta Deha Prakriti*, and 4 were having *Raja Pradhana*

Blood Pressure	Relief in %	S.E.	P Value
Systolic Blood pressure	50.1%	17/12	<0.001
Diastolic Blood pressure	64.9%	1.31	<0.5

Overall effect of Bodhivriksha Kwath Pana on Clinical Symptoms

Relief in chief complains	Relief in %	S.E.	P value
BHRAMA	25 %	0.38	<0.001
KLAMA	35 %	1.125	<0.5
ARATI	60.6 %	0.30	<0.001

Discussion

Probable Mode of Action of Bodhivriksha Kwath:

This drug is specially indicated in Vatarakta Chikitsa. Since in Charak Samhita Chikitsa Sthan Chapter 28 Vata Vyadhi Chikitsa... The Ashwattha (Bodhivriksha) has Guru-Rukshmaguna, Madhur-Kashay Rasa and Katuvipak, Sheetavirya and Dosh karma-Kapha-pittashamak as well as Raktaprashamak qualities. It has special action on vatarakta and Raktavikara (12). According to data collected from website, Dietary fiber content of food namely peepalbanti (*F. religiosa*), cellulose, and lignin were predominating constituents in peepalbanti, fed at 10% dietary level to rats, induced a greater resistance to hyperlipidemia than cellulose. Teent had the most pronounced hypocholesterolemic effect that appeared to operate through increased fecal excretion of cholesterol as well as bile acids [22]. So, this drug has been selected in this study.

Conclusion: As *Bodhivriksha Kwath Pana* has shown magnificent decrease in Systolic Blood Pressure (SBP) and Diastolic Blood Pressure (DBP) along with significant relief in clinical symptoms and good effect on HDL. So, here it concludes that though *Bodhivriksha* has positive effect on Vata Rakta but we cannot avoid its marvelous effect on Essential Hypertension.

References

1. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645150/#R1> retrieved on 12 June 12, 2016
2. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645150/#R4> retrieved on 12 June 2016
3. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645150/#R4> retrieved on 12 June 2016
4. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645150/#R4> retrieved on 12 June 2016
5. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645150/#R7> retrieved on 12 June 2016
6. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645150/#R8> retrieved on 12 June 2016
7. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R22> retrieved on 12 June 2016
8. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R8> retrieved on 12 June 2016
9. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R63> retrieved on 12 June 2016
10. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R63> retrieved on 12 June 2016
11. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R64> retrieved on 12 June 2016
12. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R8> retrieved on 12 June 2016
13. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R8> retrieved on 12 June 2016
14. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4011565/#R22> retrieved on 12 June 2016
15. Acharya Vaidya Jadavji Trikamji. (2008). *Agnivesha, Charaka, Dridhabala, Charaka Samhita*, (Ed.) Sutra Sthana, Trishothiya Adhyaya, 18/44, 2nd ed. Varanasi: Chaukhamba Sanskrit Sansthan, p. 108
16. Pandey Pt. Kashinath, Chaturvedi Gorakhnath. (2009). *Agnivesha, Charak, Dridhbala Samhita*, Charakchikitsasthan, chapter 28/194 Chaukhambha Bharti Academy, Varanasi.
17. Pandey Pt. Kashinath, Chaturvedi Gorakhnath. (2009). *Agnivesha, Charak, Dridhbala Samhita*, Charakchikitsasthan, Sutra Sthana Vidhishonitiya Adhyaya, 24/5-10; 124

type of *Manas Prakriti*. Almost 60% patients were having *Madhyama Koshta*. Only 2 males were addicted to tobacco, followed by 0% patients who were addicted to alcohol and 0% was addicted to cigarette smoking. Patients in this study reported clinical symptoms like *Bhrama* (70%), *Klama* (40%), *Arati* (30%).

However, *Kaphadushti* was reported in 80% patients. *Pranavaha Srotodushti* was reported in 20% patients and *Rasavaha Srotodushti* was seen in 70% patients. *Raktavaha* was found in 75%, *Medovaha* in 80%, *Purishavaha* Srotodushti in 10% patients. Nearly 90% patients were having chronicity (1-3 years).

18. Tripathi, R.D. (1992). *Vagbhata, Ashtanga Samgraha*, Sutra Sthana, 18/14, Hindi Commentary, 2nd ed. Varanasi: Chaukhamba Sanskrit Sansthan.
19. Pandey Pt. Kashinath, Chaturvedi Gorakhnath. (2009). *Agnivesha, Charak, Dridhbala Samhita*, Charakchikitsasthan, chapter 29/154 Chaukhamba Bharti Academy, Varanasi.
20. Pandey Pt. Kashinath, Chaturvedi Gorakhnath. (2009). *Agnivesha, Charak, Dridhbala Samhita*, Charakchikitsasthan, chapter 29/154 Chaukhamba Bharti Academy, Varanasi.
21. Summary of JNC V and WHO International Society of Hypertension ISH Special Report. Available from: <http://www.nhlbi.nih.gov/guidelines/hypertension/phycard.pdf>
22. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249921/> retrieved on 12 June 12, 2016.