

A CASE STUDY ON ESSENTIAL HYPERTENSION MANAGED WITH AYURVEDIC DRUGS

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ABSTRACT

21st century is a world of industrialization, fast and stressful life which has created various lifestyle disorders like Heart disease, Stroke, Obesity, Type 2 Diabetes, Hypothyroidism etc. As per the report of W.H.O. overall prevalence for Hypertension in India was 29.8%. Hypertension is a major cause of premature death worldwide. Contemporary Ayurvedic literatures have correlated this disease with *Raktagata vata*, *Vyanabala Vaishamyata*, *Dhamani Prapurana*, *Pittavrita Vata* etc. As Hypertension is *Vata pradhan vyadhi* and also considering the diversification of the etiology of Essential Hypertension, the drugs we have taken *Parsika yavani* Capsule with *Gokshuradi Kashaya*, is a combination of *Vatashamaka*, *Hridya*, and *Mutrala* drugs which prove to be beneficial in treating Essential Hypertension effectively. Proper dietary habits, Regular exercise, Yoga, Meditation along with Ayurveda herbs are beneficial to balance the mind and reduce stress and maintain the blood pressure. The present study deals with a male patient of age 37 years who detected hypertension in January 2022 but not taking any medicine. Now he came to Rishikul Campus in January 2023 and has complaint of Palpitation, Heaviness with pain in head, Irritability, Disturbed sleep, Raised cholesterol and triglycerides etc. the patient was put under Ayurvedic treatment with drug *Parsika yavani* and *Gokshuradi kwath* along with Diet Chart for 2 consecutive months, Lipid profile was done after complete duration of treatment. Total cholesterol was successfully dropped from with consecutive relieve of foresaid symptoms.

KEYWORDS: Hypertension, Ayurveda, Herbs, Meditation.

INTRODUCTION

Hypertension or high blood pressure, sometimes called arterial hypertension, is a chronic medical condition in which the blood pressure in the arteries is elevated. Blood pressure above 140/90 mmHg is mainly considered as Hypertension.

On the basis of etiology, Hypertension is classified into 2 types:-

- 1. Primary Hypertension** –It is also called as essential hypertension. There is no specific underlying cause of this type. It is present in more than 95% of cases.
- 2. Secondary Hypertension**- It is mainly due to consequence of a specific disease or any sort of abnormality such as Renal disease, Endocrine disease.

Classification of Blood Pressure according to JNC VIII criteria (2014)

Blood Pressure Classification	SBP mmHg	DBP mmHg
NORMAL	<120	and <80
PREHYPERTENSION	120-139	or 80-89
STAGE1 HYPERTENSION	140-159	or 90-99
STAGE2 HYPERTENSION	≥160	or ≥100

In Ayurvedic literatures, no direct reference is found related to Essential Hypertension. Contemporary Essential hypertension can be related with *Raktagata Vata*, *Vyanabala Vaishamyata*, *Dhamani Prapurana*, *Pittavrita vata*, *Raktaavrita Vata* etc.. Understanding Essential Hypertension in this perspective, vitiated *Vata Dosh* was thought to be chief culprit. *Dhatugati* (*Rasagati* or *Vikshepa*) is performed by *Vayu* itself (*Ch.Su.18/49*). *Pitta* and *Kapha* compliment the effect of vitiated *Vata* and aid the process of disease progression. While *Rasa*, *Rakta* (whole blood) being the chief mediator of vitiation. Hence the concept goes in accordance that the disease is *Tridoshaja*. Since *Vyana*

Vayu is mainly responsible for circulation in body so, Essential Hypertension is related with Vyanabala Vaishamyata.

The drug choose for study is Parsika Yavani Capsule which contains Parsika Yavani with Gokshuradi Kwath which contains Gokshura, Eranda moola, Vacha, Rasna, Punarnava which is a combination of Vatashamaka,

Hridya, and Mutrala drugs.

The assessment of effect of Parsika Yavani Capsule with Gokshuradi Kwath in patients of Hypertension is the chief objective of the study with the replacement of the modern drugs by a safe and effective alternative in Ayurveda.

MATERIAL AND METHODS

Table 1: Materials: the detail of the drug along with doses are given in the table below.

S.No.	DRUGS	DOSES	ANUPANA
1.	Gokshuradi Kwath	40 ml B.D	Lukewarm water
2.	Parsika yavani Capsule	250 mg BD	Lukewarm water

Table 2: Diet Chart.

भोजन	क्या खाएं	कितना खाएं
सुबह- सुबह (6:30 a.m)	.भूना हुआ अलसी का बीज .लहसुन .चाय (बिना चीनी के) .बिस्कुट .अंकुरित चना एवं मूंग (20 ग्राम) + पनीर (10 ग्राम)	.1 चम्मच(5gm) .2 कली .1 कप (50 ml) .2 बिस्कुट .30 gm
सुबह का नाश्ता (9 a.m)	.सब्जी वाला दलिया/oats/उपमा/पोहा/ 2 इडली/ 1 डोसा रोटी सब्जी या .अंडे के सफेद भाग का आमलेट .ब्राउन ब्रेड का स्लाइस	.1 कटोरी(75gm) .1रोटी(50gm) .1कटोरी(75gm) .2 अंडे .2 ब्रेड
सुबह के नाश्ते के बाद (11 a.m)	.सेब/अमरुद/संतरा/seasonal fruit .ग्रीन टी (बिना चीनी)	.1 प्लेट(150gm) .1 कप (50 ml)
दोपहर का भोजन (1-2 p.m)	.सब्जी वाला ब्राउन राइस पुलाव/ दलिया + .खीरा/गाजर/प्याज का रायता .सलाद या रोटी .शिमलामिर्च/परवल/तोरी/लोकी/seasonal vegetable .दाल/ मुनगे का सांभर .सलाद	.1 कटोरी(75gm) .1 कटोरी(75 gm) .1 प्लेट (150gm) .2 रोटी (50 gm प्रत्येक) .1 कटोरी(75 gm) .1 कटोरी(75gm) .1 प्लेट(150 gm)

शाम का नाश्ता (5 p.m)	.ग्रीन टी/ चाय/ कॉफी/चुकंदर का जूस(बिना चीनी) .सुरसे (बिना नमक के)	.1 कप (50 ml)/1 गिलास जूस (100 ml) .1 कटोरी (75gm)
रात का भोजन (9 p.m)	.Whole wheat आटे की रोटी .mix vegetable/ सुनगा/पालक .दाल/ कढ़ी	.2 रोटी (50 gm प्रत्येक) .1 कटोरी(75 gm) .1 कटोरी(75gm)
सोने से पहले (10 p.m)	.गाय का दूध कम बसा वाला (बिना चीनी)	.1 गिलास(50ml)

नोट= अपश्य= 1.नमक का इस्तेमाल कम करें/ सेंधा नमक प्रयोग में लायें
2. अधिक तला- भूना भोजन/ अधिक बसा का प्रयोग ना करें
3. अधिक सोच – विचार, तनाव न लें

पथ्य = 1. दिन- रात का भोजन करने के बाद 10 min. पैदल चलें
2. साथ में 1 कप गर्म पानी या ग्रीन टी (बिना चीनी) पिएँ
3. प्रतिदिन 30-45 min. पैदल चलें
4. प्रतिदिन सुबह 20-25 min. प्राणायाम जैसे: अनुलोम विलोम, भ्रामरी
आसन जैसे : सुखासन, श्वासन, अधोमुखासन, बद्धकोणासन करें

Method

A. Centre of Study: Rishikul Campus, Uttarakhand Ayurved University, Haridwar.

B. Kwatha Preparation

1. Take the 10 gm of gokshura moola, erandamoola, vacha moola, rasna leaves, punarnava moola herbs in dry form.
2. Add 16 parts of water and boil it.
3. While boiling the useful bio-actives from the herbs get transferred to the water medium.
4. Boiling is continued until the total quantity of water is reduced to 1/4th part i.e.40 ml.

C. Plan of Treatment: The treatment was done on an OPD basis, the drug mentioned in tableno. 1 was prescribed along with the guidance of *Pathya -Apathya* and a diet chart to the patient.

The patient was observed after every 20 days for 2 months, the changes in symptoms are noted along with the report of Blood pressure was done in every visit.

D. Case reports: 37 years old male patient visited our OPD with complaints of Palpitation, Heaviness with pain in head, Irritability, Disturbed sleep, Raised cholesterol and triglycerides etc.

History of present illness

The patient was suffering from the symptoms since 3 months back and undergoes for Blood pressure checkup and lipid profile after recommendation. He decided to go for Ayurvedic treatment from our hospital.

Clinical examination

At the first visit to the OPD following examination done-
Nadi- 92 bpm
Mala- Vibandh (Constipated)Mutra- Normal
Jihva- Normal Sparsha- Normal Twaka- Normal Drika- Normal
Akriti- Madhyam (Moderate)

General examination

Weight- 70 Kg
Height- 158 cm Respiration-18/min. BP- 150/100 mm Hg
Sleep- Disturbed Exercise- Mild

Blood examination- Observation and Result-

The patient was observed for 2 consecutive months and on each 20 days subjective symptoms and Objective assessment were Assess (table no. 3 and 4)


Table 3:

Symptoms	Before treatment	After 20 days	After 40 days	After 60 days
Headache	++	+	+	-
Palpitation	+++	++	++	+
Irritability	++	+	+	-
Insomnia	++	+	-	-


Table 4:

Parameters	Before treatment	After 20 days	After 40 days	After 60 days
Systolic B.P	150	140	130	130
Diastolic B.P	100	80	90	90
Pulse rate	92	86	78	79
Pulse pressure	50	60	40	40
Mean arterial pressure	116.6	100	103.3	103.3

Table 5-Before treatment.



LABORATORY REPORT



Patient Name : Mr HARPREET SINGH DOB/Age/Gender : 36 Y/Male Patient ID / UHID : 2743703/OF2743703 Referred By : Dr. Sample Type : Serum Client : REDCLIFFE COLLECTION CENTRE RAIPU	Bill Date : Jan 23, 2023, 02:23 PM Sample Collected : Jan 23, 2023, 09:56 AM Sample Received : Jan 23, 2023, 02:23 PM Report Date : Jan 23, 2023, 03:53 PM Barcode No : BH059726 Report Status : Final Report
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Test Description	Value(s)	Unit(s)	Reference Range
BIOCHEMISTRY REPORT			
Vital Screening Package			
Lipid Profile			
TOTAL CHOLESTEROL <small>Method : Enzymatic - Cholesterol Oxidase</small>	252.0	mg/dL	Desirable : <200 Borderline : 200-239 High : >240
TRIGLYCERIDES <small>Method : Colorimetric - Lip/Glycerol Kinase</small>	325.0	mg/dL	Normal : <150 Borderline : 150-199 High : 200-499 Very high : >500
HDL CHOLESTEROL <small>Method : Accelerator Selective Detergent</small>	40.2	mg/dL	>40
NON HDL CHOLESTEROL <small>Method : Calculated</small>	211.8	mg/dL	<130
LDL CHOLESTEROL <small>Method : Calculated</small>	146.8	mg/dL	Optimal <100 Near optimal/above optimal 100-129 Borderline high 130-159 High 160-189 Very high >190
V.L.D.L CHOLESTEROL <small>Method : Calculated</small>	65	mg/dL	< 30
CHOL/HDL Ratio <small>Method : Calculated</small>	6.27	-	3.5 - 5.0
HDL/ LDL RATIO <small>Method : Calculated</small>	0.27	-	Desirable : 0.5 - 3.0 Borderline : 3.1 - 6.0 High : > 6.0
LDL/HDL Ratio <small>Method : Calculated</small>	3.65	-	


Kindly correlate clinically.

Advice: Repeat if clinically indicated.

Interpretation:
Lipid level assessments must be made following 9 to 12 hours of fasting, otherwise assay results might lead to erroneous interpretation. NCEP recommends of 3 different samples to be drawn at intervals of 1 week for harmonizing biological variables that might be encountered in single assays.

NATIONAL LIPID ASSOCIATION RECOMMENDATIONS (NLA-2014)	TOTAL CHOLESTEROL in mg/dL	TRIGLYCERIDE in mg/dL	LDL CHOLESTEROL in mg/dL	NON HDL CHOLESTEROL in mg/dL
Optimal	<200	<150	<100	<130
Above Optimal			100-129	130 - 159




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All Lab results are subject to clinical interpretation by qualified medical professional and this report is not subject to use for any other purpose.

Table 6: After treatment.



LABORATORY REPORT



Patient Name : Mr HARPREET SINGH
 Bill Date : Mar 11, 2023, 11:46 AM
 DOB/Age/Gender : 37 Y/Male
 Sample Collected : Mar 11, 2023, 11:46 AM
 Patient ID / UHID : 3500970/OF3500970
 Sample Received : Mar 11, 2023, 12:35 PM
 Referred By : Dr.SELF
 Report Date : Mar 11, 2023, 01:32 PM
 Sample Type : Serum
 Barcode No : BH488123
 Client : REDCLIFFE COLLECTION CENTRE RAIPU
 Report Status : Final Report

Test Description	Value(s)	Unit(s)	Reference Range
BIOCHEMISTRY REPORT			
Lipid Profile			
TOTAL CHOLESTEROL Method : Enzymatic - Cholesterol Oxidase	218	mg/dL	Desirable : <200 Borderline : 200-239 High : >240
TRIGLYCERIDES Method : Colorimetric - Lip/Glycerol Kinase	211.5	mg/dL	Normal : <150 Borderline : 150-199 High : 200-499 Very high : >500
HDL CHOLESTEROL Method : Accelerator Selective Detergent	52.8	mg/dL	>40
NON HDL CHOLESTEROL Method : Calculated	165.2	mg/dL	<130
LDL CHOLESTEROL Method : Calculated	122.9	mg/dL	Optimal <100 Near optimal/above optimal 100-129 Borderline high 130-159 High 160-189 Very high >190
V.L.D.L CHOLESTEROL Method : Calculated	42.3	mg/dL	< 30
CHOL/HDL Ratio Method : Calculated	4.13	-	3.5 - 5.0
HDL/ LDL RATIO Method : Calculated	0.43	-	Desirable : 0.5 - 3.0 Borderline : 3.1 - 6.0 High : > 6.0
LDL/HDL Ratio Method : Calculated	2.33	-	

Interpretation:

Lipid level assessments must be made following 9 to 12 hours of fasting, otherwise assay results might lead to erroneous interpretation. NCEP recommends of 3 different samples to be drawn at intervals of 1 week for harmonizing biological variables that might be encountered in single assays.

NATIONAL LIPID ASSOCIATION RECOMMENDATIONS (NLA-2014)	TOTAL CHOLESTEROL in mg/dL	TRIGLYCERIDE in mg/dL	LDL CHOLESTEROL in mg/dL	NON HDL CHOLESTEROL in mg/dL
Optimal	<200	<150	<100	<130
Above Optimal			100-129	130 - 159
Borderline High	200-239	150-199	130-159	160 - 189
High	>=240	200-499	160-189	190 - 219
Very High	-	>=500	>=190	>=220



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	Before treatment	After treatment
Serum Cholesterol (mg/dl)	252	218
Triglycerides (mg/dl)	325	211.5
LDL (mg/dl)	146.8	122.9
HDL (mg/dl)	40.2	52.8
VLDL (mg/dl)	65	42.3

DISCUSSION

After reviewing the various *Nidan*, *Samprapti* and *Rupa* etc of the disease Hypertension it is clear that according to Ayurveda, it is a *Vatapradhan Tridosha Vikara Vyadhi* with *Agnimandya*. Vitiated *Vata Dosha* was thought to be chief culprit. *Dhatugati (Rasagati or Vikshepa)* is performed by *Vayu* itself (*Ch.Su.18/49*). *Pitta* and *Kapha* compliment the effect of vitiated *Vata* and aid the process of disease progression. While *Rasa*, *Rakta* (whole blood) being the chief mediator of vitiation. Hence the concept goes in accordance that the disease is *Tridoshaja*.

Since *Vyana Vayu* is mainly responsible for fluid circulation in our body therefore we can correlate *Vyaanbala Vaishamyata* with Essential Hypertension.

Gokshuradi Kwatha is a drug of choice for *Vatavyadhi* which contains *Gokshura*, *Eranda moola*, *Vacha*, *Rasna*, *Punarnava* which is a combination of *Vatashamaka*, *Hridya*, and *Mutrala* drugs along with *Parsika yavani* Capsule which contain *Hyoscine*(Chemical constituent) that shows *Nidrajanana* effect which will prove to be beneficial in treating Essential Hypertension effectively. The westernization, Irregular dietary habits, stressful life schedules, uncontrollable mental worries etc. are also considered in this regard for which we have to give Diet Chart to the patient.

So, by use of *Gokshuradi Kwatha* – 40 ml BD after meal along with *Parsika yavani* Capsule 250 mg BD follow up were taken on symptomatic relief with BP measurement every month whereas Lipid profile was repeated after completion of treatment i.e after 2 months. As per patient there was huge relief on symptoms whereas BP value and lipid profile also greatly reduced after completion of treatment.

CONCLUSION

After reviewing the observation and result it may be concluded that *Gokshuradi kwatha* 40 ml BD along with *Parsika yavani* Capsule 250mg BD and Diet Chart for 2 months is good remedy against Essential Hypertension, no such adverse effect was observed during the treatment schedule.

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