

## **A STUDY OF PHYSIOLOGICAL INFLUENCE OF DIFFERENT DEHAPRAKRUTIS ON INCIDENCE OF ESSENTIAL HYPERTENSION**

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### **Abstract**

*Prakruti* formed during fertilization remain constant throughout life and it plays vital role in manifestation and prognosis of various diseases. Essential Hypertension is a condition widely seen in population all over globe. The danger part with the disease is to get neglected being symptom less by the patients and end up in serious changes in vessels and organs supplied by end arteries. Objective of this study is to find the relation of *Dehaprakruti* in accordance of essential hypertension. For that, Literary and conceptual data are gathered from various sources and 100 volunteers are selected for their *Prakruti* and Blood pressure assessments The study was done in a survey mode done directly with the patients with a standard *Prakruti* assessment chart and manual checking of blood pressure in prescribed manner. Present study concludes that *Pitta pradana Vata and Vatapradhana Pitta* are dominating *Prakruti* in cases of essential hypertension.

**Key words** – Essential Hypertension; *Prakruti*; Survey study; *Uccharaktachapa*

### **INTRODUCTION**

Life style disorders are most burning issues in the present era. Among that essential hypertension is the most prevalent form of hypertension accounting for 90% of all cases of hypertension. In considerable proportion of cases the disease tends to be asymptomatic for prolonged time, hence also labeled as 'Silent Killer'<sup>1</sup>.

It tends to be familial and likely to be the consequence of an interaction between environmental and genetic factor. Prevalence of essential hypertension increase with age and individual with relatively high blood pressure at younger age are at increased risk for the subsequent development of hypertension.<sup>2</sup>

High blood pressure is a major risk factor for stroke, heart diseases and kidney failure<sup>3</sup>. It ranked fourth in the world by prevalence<sup>4</sup>. Adult hypertension prevalence has risen dramatically over the past three decades from 5% to between 20-40% in urban areas and 12-17% in rural areas<sup>5</sup>.

People are born with various proportions of *Dosha*. Their body constitution is referred accordingly. Those born with equal proportions of three Dosha i.e. ratio of *Vata*, *Pitta* & *Kapha* equal to each other are *Saamapitta* & *nilaKapha*.<sup>6</sup>

*Prakruti* identified in *Ayurveda* is an individual's basic constitution and to a large extent it determines predisposition and prognosis of disease. So once the constitution of an individual is detected then we can be able to prevent and cure the disease by managing the diet and physical activities

*Prakruti* of a person is an inherent characteristic property of an individual occurs during the commencement of life only and it cannot be altered or modified. The restless behaviour of *Vataprakruti*, *Raktajavikaras* of *Pittaprakruti* and the lifestyle peculiarities of *Kaphaprakruti* individuals may be correlated with the occurrence of essential hypertension. The exact cause

for essential hypertension is not known but it is proved that it is much related to genetic cause, which is *Prakruti* in Ayurvedic aspects.

### **OBJECTIVES**

- To assess the *Dehaprakruti* of the subject diagnosed with essential hypertension.
- To find out relation between *Dehaprakruti* and essential hypertension.

### **MATERIALS AND METHODS**

#### **SOURCE OF DATA:**

##### **A) Sample Source:**

100 subjects who fulfil the inclusion criteria will be randomly selected from Alva's Health Centre, Moodbidri and other referral units irrespective of sex, caste and religion.

##### **B) Literary Source:**

All the classical, modern literature, contemporary texts including journals and websites will be studied and documented for the intended study.

##### **C) Sample size:**

A total of 100 subjects who fulfil the inclusion criteria are selected.

#### **DIAGNOSTIC CRITERIA:**

Diagnosis will be established on the basis of objective symptoms.

#### **OBJECTIVE SYMPTOMS**

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- BP will be measured using the Manual Sphygmomanometer.
- BP will be measured as an average of two or more readings taken at each of two or more visits after an initial screening. All the records will be maintained systematically.
- It is not taken immediately after bath, food, waking up, internal or external Snehakarma, during sleep, hunger and thirst.

**INCLUSION CRITERIA:**

- Individuals within the age limit of 20-50 years.
- Subjects who are diagnosed with essential hypertension i.e. 140-160 mmHg Systolic, 90-100 mmHg Diastolic pressure.
- Subjects of both sex and any socio-economic status will be included.

**EXCLUSION CRITERIA:**

- Individual suffering from acute, chronic or any systemic diseases, including secondary hypertension.
- Individuals with chronic and severe cardiovascular ailments.

**RESULTS AND DISCUSSION**

**AGE**

**Distribution of age in the study  
Distributions Of Volunteers Based On Age**

AGE GROUP	NUMBER	%
20 - 30	15	15 %
31 - 40	33	33 %
41 - 50	52	52 %

Among 100 selected volunteers, 15% were belonged to the age group of 20-30, 33 % were from the age group of 31-40, 52% were from the age group of 41-50.

In the current study maximum number of patients i.e. 52% were from the age group of 41-50 years. As per the age cataloguing of Ayurveda this category comes under the *Madhyama vayo*, which is explained as *pitta kala*. (*Vayoraho raathri bhuktanam*) This backs the hypothesis of the study.

**GENDER**

**Distribution of Gender in the study**

GENDER	NUMBER	%
MALE	57	57 %
FEMALE	43	43 %

Among 100 selected volunteers, 57 % were males and 43 % were females.

Amongst 100 selected volunteers, 43 were females and 57 were males. Nearly equal distribution of Males and Females were observed. The prevalence of male side may be



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because of the habit of smoking, drinking or outside food habits.

**RELIGION**

**Distribution of Religion in the study**

RELIGION	NUMBER	%
HINDU	80	80%
MUSLIM	15	15%
CHRISTIAN	5	5 %

Among 100 volunteers, 80% were Hindus, 15% were Muslims and 5 % were belonging to Christian community. Maximum i.e. 80% of volunteers were Hindus. It depends on the patients attending the hospital and community residing in the locality. Religion doesn't have any direct involvement in the occurrence of current disease in form of predisposing factors.

**OCCUPATION**

**Distribution of occupation in the study**

OCCUPATION	NUMBER	%
Agriculture	9	9 %
Cooli	11	11 %
Business	19	19 %
Teacher	13	13 %
House wife	25	25 %
Office worker	12	12 %
Student	11	11 %

Among 100 volunteers, 25% were House wives, 19 % were Business man, 13 % were Teachers, 12 % were Office workers, 11% were Students, 9 % Farmers and 11 % were Coolies. Out of 100 patients 30% were house wives and 19% were business men. Both this category being top in the list probably because of the long standing stress and habit of neglecting mild body discomforts due to busy working schedule. Housewives are more prone for *Atapa sevana, Nidra Nasha* and *mahanasa dhumanisevan* (kitchen smoke), which also causes *pitta vridhi* in them.

**SOCIO ECONOMIC STATUS**

**Distribution of Socio – Economic Status in the study**

SOCIO – ECONOMIC STATUS	NUMBER	%
POOR	41	41 %
MIDDLE CLASS	47	47 %
UPPER MIDDLE CLASS	12	12 %

Among 100 volunteers, 41 % were from Poor Socio - Economic Status, 47 % were Middle Class and 12 % were Upper Middle class. Middle class and poor socio economic category holds nearly 90% of study group. The probable reason is absence of periodic

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health checkup including blood pressure monitoring. They are usually diagnosed with essential hypertension while visiting doctors for some other systemic disease or injuries. During the survey could find many who was checking blood pressure for first time and found them fulfilling criteria's of inclusion.

**SMOKING HABIT**

**Distribution of Smoking Habit in the study**

SMOKING HABIT	NUMBER	%
Present	54	54 %
Absent	46	46 %

Among 100 volunteers, 54 % were addicted to smoking and 46% were nonsmokers.

**DRINKING HABIT**

**Distribution of drinking Habit among the volunteers participated in the study**

ALCAHOL HABIT	NUMBER	%
Present	58	58 %
Absent	42	42 %

Among 100 volunteers, 58 % were addicted to drinking and 42 % were nondrinkers.

About 54 % were smokers and 58 % were using alcohols. So this study also agrees the fact that chronic smoking

and alcohol consumption will bring changes in the structure of blood vessels and causes variation in blood pressure.

**BMI**

**Distribution of volunteers based on BMI in the study**

BMI	NUMBER	%
18-25	52	52 %
25-30	46	46 %
30+	2	2 %

Among 100 selected volunteers participated in the study 52 % was with normal BMI, and 46 % had overweight and two person were obese. 46% of people selected was found having BMI between 25 and 30 which comes under overweight category. The pathological changes in circulatory system due to overweight are probably the reason for causing essential hypertension in them.

**PRAKRUTI**

**Distribution of Prakruti in the study**

PRAKUTI	NUMBER	%
PV	29	29 %
VP	23	23 %
PK	17	17 %
KV	13	13 %
VK	12	12 %
KP	6	6 %

Among 100 selected volunteers participated in the study majority had *Pitta Pradhana vata prakruti* ie 29% and 23% were *vata pitta*

*prakruti*. 17% were *pitta kapha prakruti*, 13% were *kapha vata prakruti*, 12% were *vata kapha prakruti*, and 6% were *kapha pitta prakruti*.

In the present study ***Eka doshaja prakruti*** and ***Sama prakruti*** were not obtained.

On assessing the selected 100 patients with the standard prakruti assessment chart 29 % where *Pitta pradhana vata prakruti* and 23% *Vata pradhana pitta prakruti* respectively.

Here in my study most of the people suffered with Essential Hypertension is under *Madyama vaya ie pitta kaala*.

*Acharya charaka* 8<sup>th</sup> chapter 97<sup>th</sup> sloga *pitta prakruti* person having *theekshna aagneya* quality which implies *theekshnaagni* of an individual.

Actually the inner meaning of this is *theekshna* is the sharpness or the main characteristics of *pitta* and *thejo mahaboota*.

*Sara* is one among the *pitta guna*, which possess spreading nature. responsible for upwords and downwords movement of the water content of the body. It is opposite to stragnt.

If *pitta prakruti* person is more likely to have *amla, lavana, katu rasas* which

also vitiate *pitta dhosha*. If a person is taking more *amla, lavana, katu and vidhaaha aahaara* definitely *pitta* will be increased in the body, the mean time *theekshna guna* of *pitta* highly increased and thereby it reduces the *sara or drava guna* of the *pitta* itself.

*Pitta and rakta* are the *aasra-aasrai baava* and if anything happens to one it will affect other one also.

#### Role of Vata

- *Vata* means *Cala guna*. Without *Vata* no movements will be there.
- *Vyaana vata* moves throughout the body and situated in *Hrudaya*. It stimulates and control the proper functioning of *Hrudaya*.
- *Vyana Vata* vitiation can cause *Anga Suptata, Sarvanga Roga*
- Vitiated *Vata* can generate the uncontrolled stimulation.

#### **CONCLUSION**

- Findings of this study revealed that Essential hypertension was more prevalent in *pitta Pradhana Vata Prakruti*.
- *Nidanas* causing the specific *dosha* vitiation are in tune to the *lakshanas* seen in the condition Essential Hypertension.
- Essential Hypertension can be caused due to numerous factors, and the factors are specific to the *pitta* and *Vata dosha* is commonly seen.



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- But some of the reasons cannot always be co related with the specific *dosha*.
- Though cause cannot be specified it was seen that diet practice was the most relatable cause for causing this disease.H1- is accepted that there is relationship between *Deha prakruti* and essential hypertension.

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