

EFFICACY OF VIRECANA KARMA (TRIVṚT CURNA) FOLLOWED BY UROVASTI (KṢĪRABALA TAILA) IN THE MANAGEMENT OF UCCA RAKTACĀPA WITH SPECIAL REFERENCE TO STAGE I ESSENTIAL HYPERTENSION

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ABSTRACT

Essential hypertension remains significant global health burden, necessitating exploration of alternative therapeutic modalities. In *Ayurveda*, there is no direct reference regarding this disease which completely resembles with hypertension. R.R.Desai, correlated hypertension with *Ucca Raktacāpa*. Essential hypertension was screened in light of *Vata–Pitta Pradhana Rakta Pradoshaja Vikara* as mentioned by *Acarya Caraka*. This clinical study aimed to assess the efficacy of *Virecana* and *Urovasti* in managing the Stage I Essential hypertension. A total of 30 participants diagnosed with Stage I Essential hypertension were subjected to *Virecana* and *Urovasti*. The primary outcome measure was the reduction in systolic and diastolic blood pressure levels. Additionally, improvements in lipid profile and quality of life were noted with no significant adverse events reported.

Both *Virecana* and *Urovasti* demonstrated significant reductions in blood pressure levels. These findings suggest that *Virecana* and *Urovasti* hold promise as effective adjunctive therapies for essential hypertension management.

KEYWORDS: *Virecana*, *Urovasti*, *Ucca Raktacāpa*, Essential hypertension.

INTRODUCTION

Hypertension is a condition in which arterial blood pressure is chronically elevated. It is one of the leading cause of global burden of disease.^[1] Hypertension is a life style disorder occurs

due to faulty life style and stressful psychological conditions. Hypertension is directly responsible for 57% of all stroke deaths and 24% of all Coronary Heart Disease (CHD) deaths in India. WHO report says that of the 188.3 million estimated to have the condition in India, only 37% get diagnosed. The rates for Hypertension in percentage are projected to go up to 22.9 and 23.6 for Indian men and women, respectively by 2025. Recent studies from India have shown the prevalence of Hypertension to be 25% in urban and 10% in rural people in India.

Based on the etiology, high blood pressure is classified as either Primary/Essential or secondary hypertension. Primary or “essential” hypertension has no known cause. In about 5% of cases, hypertension can be shown to be a consequence of a specific disease or abnormality leading to sodium retention and or peripheral vaso constriction. About 90–95% of cases of hypertension are categorized as primary hypertension with no obvious underlying cause. Secondary Hypertension is caused by some other medical conditions/problems or the use of certain medications.

Āyurveda is a science of life rather than a medicine. *Āyurveda* the science of medical system evolved globally emphasizes on the way of physical and mental fitness along with preservation of health. *Āyurveda* having a special branch *Pañcakarma* not only cures the disease and also prevents the disease. In *Ayurveda*, there is no direct reference regarding this disease which completely resembles with hypertension. R.R.Desai, correlated hypertension with *Ucca raktacāpa*. Many scholars had worked on hypertension and had given various nomenclature which can be correlated with hypertension such as *Raktagata vāta*, *Āvruta vata*, *Siragatavata*, *Dhamani praticaya*, *Vyāna prakopa* etc., but none of these terms were universally accepted.

In *Ayurveda*, the regulation of blood pressure is governed by the *Tridoshas* viz *Vata* (*Prana* and *Vyana*), *Pitta* (*Sadhaka*) and *Kapha* (*Avalambaka*), *Dushya* like *Rasa*, *Rakta* and *Meda*, with the proper functioning of *Manas* (mind) and *Ojas* which are situated in heart and helps in circulation of blood. On the basis of strong resemblances between etiological factors, symptoms, involvement of *Doshas* and *Dushya* in the etiopathology and complications, Essential hypertension was screened in light of *Vata–Pitta Pradhana Rakta Pradoshaja Vikara* as mentioned by *Acarya Caraka*. *Acarya Caraka* says when *Vata* is obstructed by *Pitta*, *Kapha*, *Meda*, and *Rakta*. *Virecana* should be given in diseases caused by *Dushitha Rakta* (Ca.Su-24/18).^[2] In Essential Hypertension, the chief culprit is *Vyana Vayu*, and is a disease

of *Bahya*, *Madhyama Rogamarga*, and *Marmagata Vyadhi*. In these conditions, *Vasti* is the main line of treatment for aggravated *vata* (Ca. Si 1/38-40)^[3] hence opted for *Urovasti*.

AIMS AND OBJECTIVES

- i. To evaluate the efficacy of *Virēcana Karma (Trivṛt cūrṇa)* followed by *Urovasti (Kṣīrabala taila)* in the management of *Ucca Raktacāpa* with special reference to Stage I Essential Hypertension.
- ii. To introduce simple and cost -effective treatment for *Ucca Raktacāpa*.

MATERIALS AND METHODS

Total 30 Patients were selected from OPD and IPD of S.V.Ayurvedic hospital, Tirupati, Andhra Pradesh.

Materials required

For *Snehapana – Indukantha Ghṛta*^[4]

For *Virēcana: Trivṛt cūrṇa*^[5]

For *Urovasti: Kṣīrabala tailam*^[6]

Inclusive criteria

1. Patients with age group of 20 to 60 years.
2. Patients with signs and symptoms of *Ucca Raktacāpa*
3. Patients with signs and symptoms of Stage I Essential Hypertension
4. Patients who are eligible for *Virēcana* and *Urovasti*.

Exclusive criteria

1. Patients with age group of below 20years & above 60 years
2. Patients with HIV, TB and other systemic disorders in which patient is unable to withdraw modern medications.
3. Patients with uncontrolled Diabetes.
4. Hypertension in pregnancy.
5. Patients who do not fit into inclusive criteria.

Study design

Method of administration of *Virēcana*

Virēcana***Purva karma***

- *Deepana* and *Pacana* with *Chitrakadi Vati*, dosage as well as duration were decided based on the patient's *Agni* and *Koshta*.
- Duration was around 3 - 5 days depending upon the attainment of *Nirama lakshanas*.
- Then *Snehapana* was initiated with *Indukantha ghrta*.
- Patient was instructed to take *Drava*, *Ushna*, *Anabhishtyandi bhojana* the previous day.
- Patient was asked to evacuate his urges before administering *Snehapana*. Dosage was given based on *Avarohana matra* starting from 30 ml and everyday dose is increased by 30 ml.
- Total duration of *Snehapana* varied from patient to patient depending on the respective patient's *Agni* and *Koshta* ranging between 3 - 7 days. *Snehapana* was administered at 6 AM everyday.
- Patient was advised to have *Ushnajakapana* and walk a few steps post administration and was advised to take hot water frequently and have light and hot food whenever he feels hungry.
- After attaining *Samyak Snigdha Lakshanas*, 3 days of *Abhyanga* with *Nirgundi Taila* and *Nadi Sweda* were given. Patient was asked to have *Amla* and *Pitta vriddhikara ahara* prior to the day of *Virēcana* and have sound sleep.

Pradhana karma

On the day of *Virēcana*, patient was asked to evacuate urges. On an empty stomach, she was administered *Trivṛt Cūrṇa* whose dose was fixed based on the patient's *Koshta* at around 9 AM. The patient was advised to pass stool whenever she gets the urge and meanwhile take rest. *Ushnodakapana* was advised. Number of *Vegas* were counted.

Pascat karma

- Patient was advised to take *Ushnodaka snana*, follow *Samsarjana krama* and eat food only when she felt hungry and take rest.
- *Samsarjana Krama* depending on the type of *Suddhi*.

Urovasti

Urovasti was performed with *Kṣīrabala tailam* for 7 days.

Procedure

The procedure of *Urovasti* can be divided into three stages such as - *Purva Karma*, *Pradhana Karma* and *Paścat Karma*.

Purva karma

Patient should be lie in comfortable supine position. The chest is exposed. Dough of thick consistency is prepared with black gram flour by adding water.^[7,8] This is rolled to a long strap, with the height of about three *Angulas* (two quarters inch) and width of one inch. The length should be sufficient to form a ring around the area. The ends are fixed such that it forms a loop (*paali*).

Pradhana karma

The oil is warmed over hot water bath is poured slowly inside the ring bund and the temperature must be maintained by replacing a small quantity of oil after the required rewarming.

Paścat karma

After the prescribed time, oil is to be removed off from over the chest with the help of cotton. Remove the dough. Wipe the surface with cotton or towel. Patient is advised to take rest in the same position for 10-20 min.

Progress and Follow up

1. Before treatment- 0th day
2. Immediately after treatment-22- 30th day

Follow UP

- After one month of completion of treatment

Subjective parameters

1. *Siroruk* (Headache)
2. *Bhrama* (Dizziness)
3. *Klama* (Fatigue)
4. *Hrddravata* (Palpitations)

Objective parameters**Blood pressure**

1. Systolic Pressure (130 - 139 mmHg).
2. Diastolic Pressure (80 - 89mmHg).

Subjective criteria	
<i>Siroruk</i>	
No Pain	Grade 1
Mild Pain	Grade 2
Moderate Pain	Grade 3
Severe Pain	Grade 4
<i>Bhrama</i>	
No Dizziness	Grade 1
Mild Dizziness	Grade 2
Moderate Dizziness	Grade 3
Extreme Dizziness	Grade 4
<i>Klama</i>	
No Fatigue	Grade 1
Mild Fatigue	Grade 2
Moderate Fatigue	Grade 3
Severe Fatigue	Grade 4
<i>Hrid dravata</i>	
No Palpitations	Grade 1
Mild Palpitations	Grade 2
Moderate Palpitations	Grade 3
Severe Palpitations	Grade 4
Objective criteria	
Systolic Blood Pressure	
< 130 mmhg	Grade 1
130 - 131 mmhg	Grade 2
132 - 133 mmhg	Grade 3
134 - 135 mmhg	Grade 4
136 - 137 mmhg	Grade 5
138 - 139 mmhg	Grade 6
Diastolic Blood Pressure	
< 80mmhg	Grade 1
80 - 81 mmhg	Grade 2
82 - 83 mmhg	Grade 3
84 - 85 mmhg	Grade 4
86 - 87 mmhg	Grade 5
88 - 89 mmhg	Grade 6

Statistical analysis of Signs and Symptoms

Effects of *Śiro ruk* (Headache)

The effect of *Virecana* and *Urovasti* on *Śiro ruk* is statistically significant ($P < 0.0007$) immediately after completion of treatment and extremely statistically significant ($P < 0.0001$) after follow up of treatment.

Table no. 1: Showing PAIRED T- TEST summary of *Śiro ruk* (Headache).

Mean \pm S.D		MD	SED	t value	p value	% of relief
0th Day	Immediately After Treatment					
2.50 \pm 0.90	2.17 \pm 0.65	0.33	0.088	3.8079	P= 0.0007	13.2

Mean \pm S.D		MD	SED	t value	p value	% of relief
0th Day	Aft After follow up					
2.50 \pm 0.90	2.00 \pm 0.74	0.50	0.104	4.7848	P< 0.0001	20

Effects on *Bhrama*: (Dizziness)

The effect of *Virecana* and *Urovasti* on *Bhrama* is very statistically significant ($P= 0.0001$) immediately after completion of treatment and extremely statistically significant ($P < 0.0001$) after follow up of treatment.

Table no. 2: Showing PAIRED T- TEST summary of *Bhrama*: (Dizziness).

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	Immediately After Treatment					
2.50 \pm 0.86	2.03 \pm 0.67	0.47	0.104	4.4737	P= 0.0001	18.8

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	After follow up					
2.50 \pm 0.86	1.77 \pm 0.68	0.73	0.159	4.6256	P< 0.0001	29.2

Effects on *Klama* (fatigue)

The effect of *Virecana* and *Urovasti* on *klama* is very statistically significant ($P= 0.0001$) immediately after completion of treatment and extremely statistically significant ($P < 0.0001$) after follow up of treatment.

Table no. 3: Showing Paired T- TEST summary of *Klama* (fatigue).

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	Immediately After Treatment					
3.17 \pm 0.87	2.77 \pm 0.73	0.40	0.091	4.3970	P=0.0001	10.4

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	After follow up					
3.17 \pm 0.87	2.63 \pm 0.85	0.53	0.142	3.7640	P= 0.0008	17

Effects on *hrd dravata* (Palpitations)

The effect of *Virecana* and *Urovasti* on *Hrd dravata* is very statistically significant (P= 0.0003) immediately after completion of treatment and very statistically significant (P =0.0002) after follow up of treatment.

Table no. 4: Showing PAIRED T- TEST summary of *Hrd dravata* (Palpitations).

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	Immediately after Treatment					
2.97 \pm 0.89	2.60 \pm 0.77	0.37	0.089	4.0975	P=0.0003	12.4

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	After follow up					
2.97 \pm 0.89	2.43 \pm 0.86	0.53	0.124	4.2868	P=0.0002	18.1

Effects on systolic blood pressure

The effect of *Virecana* and *Urovasti* on Systolic Blood Pressure is very statistically significant (P= 0.0014) immediately after completion of treatment and very statistically significant (P =0.0006) after follow up of treatment.

Table no. 5: Showing PAIRED T- TEST summary of Systolic Blood Pressure.

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	Immediately After Treatment					
3.73 \pm 0.91	3.23 \pm 0.63	0.50	0.142	3.5254	P=0.0014	13.4

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	After follow up					
3.73 \pm 0.91	3.00 \pm 0.87	0.73	0.191	3.8317	P=0.0006	19.5

Effects on diastolic blood pressure

The effect of *Virecana* and *Urovasti* (Group-A) on Diastolic Blood Pressure is very statistically significant (P= 0.0087) immediately after completion of treatment and very statistically significant (P =0.0037) after follow up of treatment.

Table no. 6: Showing PAIRED T- TEST summary of Diastolic Blood Pressure.

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	Immediately after Treatment					
3.23 \pm 0.94	2.73 \pm 0.64	0.50	0.192	2.8123	P=0.0087	15.4

Mean \pm S.D		MD	SED	t Value	p value	% of relief
0th Day	After follow up					
3.23 \pm 0.94	2.60 \pm 0.67	0.63	0.200	3.1591	P=0.0037	19.5

Discussion on procedure

Probable mode of action of *virecana*

The *Virecana Karma* clears *Margavarodha* (Obstruction), eliminates the morbid *Doshas* from *Rakta*, and regulates the activity and movement of *Vata*. Thus, it controls the high BP. According to the modern point of view, during *Virecana* process, the inflammation of intestinal mucosa leads to hyperemia and exudation resulting into increased passage of protein-rich fluids through vessel walls to intestinal lumen. Increase in fluid volume also results in the dilution of toxic material. Evacuation of the fluid from *Rasa-Rakta* by *Virecana* is the direct process that leads to decrease in fluid volume.

Probable mode of action of *uro vasti*

- After the application of the oil, penetration of heat through the skin started, which not only dilate the blood vessel (Aorta) but also stimulates the receptor of vagus nerve (Intrinsic nervous system) through heart – brain communication & mind become calm.
- Generalized metabolic reaction of drug is also occurs at that area. Finally gives the result as proper *Rasa Samvahana* (Circulation), calm effect on brain & also strengthen the cardiac muscles.
- According to *Ayurveda* it maintains the flow of *Rasa Dhatu* enhances the *Hridaya Sthana Gata Pitta Karma* & regulates the *Vyana Vata*.
- Proper *Rasa Samvahana* nourishes the *Shira Pradesh* which gives soothing effect in stress condition & *Prasadana* of *Manovaha srotas*.

CONCLUSION

On objecting the cardinal Sign and Symptomatology of the disease to Ayurvedic fundamentals, it is evident that there is predominance of *Vāta Pitta* and *kapha* as *anubandha doṣa* accompanied with *Rasa Rakta* duṣṭi. *Dhamani upalepa* is one of the main incidences in *Ucca Raktacāpa*. Hence *Ucca Raktacāpa* can be assigned as *Tridoṣaja vyādhi* with

predominance of *Vāta and Pitta*. The aim of present study was to find out a safe effective way for the management of *Ucca Raktacāpa* and to evaluate the efficacy of *Virēcana karma* with *Trivṛt cūrṇa* followed by *Urovasti* with *Kṣīrabala taila*. The observations and results were analysed statistically and extremely significant p value was found immediately after treatment and after follow up. Better improvement in relief percentage of symptoms was seen immediately after treatment and follow up.

The primary outcome measure was the reduction in systolic and diastolic blood pressure levels. Additionally, improvements in lipid profile and quality of life were noted with no significant adverse events reported. Both *Virecana* and *Urovasti* demonstrated significant reductions in blood pressure levels. These findings suggest that *Virecana* and *Urovasti* hold promise as effective adjunctive therapies for essential hypertension management.

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