

FATALITY OF RAKTAGATA VATA (HYPERTENSION) IN OLD AGE AND ITS AYURVEDIC MANAGEMENT

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Ageing is a natural process, the study of physical and psychological changes which are incident to old age is called gerontology, the care of the aged is called clinical gerontology or geriatrics. Hypertension is a chronic diseases are more frequency among the older people than in the younger people.

Degenerative diseases of Heart and Blood vessels- The inner walls of arteries break down, and a lipoid material is deposited. This is timely is replaced by calcium which leads to narrowing of the blood vessels or atherosclerosis. This lead to diminished blood supply, thrombus formation, rapture of blood vessels and high blood pressure.

A clinical study of 140 cases of hypertension was conducted at indoor and outdoor department, National Institute of Ayurveda, Jaipur. In which following drug trial was taken up for study to establish the clinical and therapeutic efficacy.

Trial (A) - *Prasadini Vati*

Trial (B) - *Prasadini Vati with Mansyadi Kwatha*

Trial (C) - *Medhyadi Yoga Ghan Vati*

Trial (D) - *Rudrakshadi Ghana Vati with Shirodhara.*

The present study has shown that the above formulation is highly valuable in the management of hypertension. In this



presentation an attempt has also been made to highlight the view of ancient and modern clinician concerning conceptual understanding of aetiology, diagnosis and principle of management of hypertension.

Introduction

- * Hypertension is the commonest chronic medical condition in the developing world, depending upon the criteria for the diagnosis. Hypertension can be said to be present in 20-30% of the adult population. It is now rapidly becoming a major problem in the developing countries. It should not be so much regarded as disease, but as one of three treatable or reversible risk factor for premature death due to vascular disease.
- * The prevalence of hypertension in India was 59.9 and 69.9 per 1000 in male and female respectively. in urban population and 35.5 and 35.9 per 1000

in male and female respectively in the rural population.

- * The common organ damaged by long standing hypertension are heart, kidney, blood vessels, retina and central nervous system.
- * Hypertension is the silent killer of mankind. Most sufferers (85%) are asymptomatic and hence early diagnosis is a problem.
- * The blood pressure is the single most useful test for identifying individual at a high risk of developing CHD.
- * Hypertension accelerates the atherosclerotic process especially of hyperlipidemia is also present and contributes importantly to CHD (Coronary Heart Disease).
- * The WHO in its expert committee

Category	Systolic BP	Diastolic BP
Normal	< 130	< 85
High normal	130 - 139	85 - 89
Hypertension		
Mild (Stage 1)	140 - 159	90 - 99
Moderate (Stage 3)	160 - 179	100 - 109
Severe (Stage 3)	180 - 209	110 - 119
Very Severe (Stage 4)	≥ 210	≥ 120
Malignant hypertension	≥ 200	≥ 140



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report 1978 has arbitrarily define hypertension in adults as a systolic blood pressure equal to or greater than 160 mmHg. and/or a diastolic pressure equal to or greater than 95 mmHg.

- * The definition of hypertension is not universal because normal BP varies.

The sixth joint national Committee criteria (JNC VI) of WHO classifies Hypertension.

Hypertension is generally classified into two types -

Primary or essential hypertension - In which the cause of increase in blood pressure is unknown, essential hypertension constitutes about 90 - 95% patient of hypertension.

Secondary Hypertension - In which the increase in blood pressure is caused by disease of kidney. Endocrine or some other organ. Secondary hypertension comprises 5-10% case of hypertension. According to clinical course both essential and secondary hypertension may be benign or malignant.

Benign Hypertension - Benign hypertension is moderate elevation of BP and the rise is slow as the year pass about 90-95% patient of hypertension have benign hypertension.

Malignant hypertension - is mark and rapid increases of BP to 200/140 mmHg

or more and the patient have papilloedema, retinal haemorrhage, and hypertensive encephalopathy. Less than 5% of hypertension patient develop malignant hypertension and the expectancy after diagnosis in these patient is generally less than 2 year if not treated effectively.

Hypertension is generally found in 25-75 years old age group.

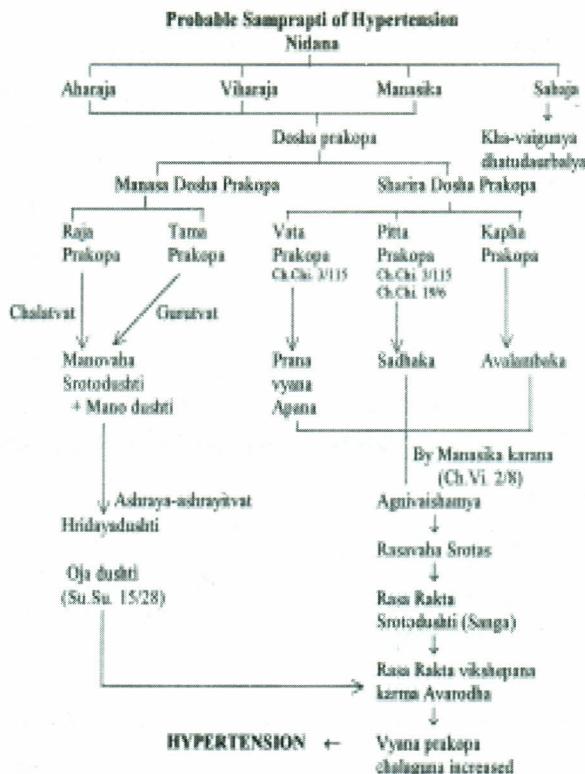
AYURVEDIC - ETIOLOGY

In Ayurveda following causes is mentioned

- 1) Ahara janya
 - 2) Vihara janya
 - 3) manasika karana
 - 4) Nidanarthakara rogas.
 - 5) Others
1. **Ahara janya** - Atisantarpaka- *hara*, *Adhyashana*, *Atyashana*, *Viruddhashana*, *Vishamashana*, *Vidahi anna* and *Anashana*.
 2. **Viaharajanaya** - Suppression of 13 natural urges, Excess exercise, *Achestra*, *Shayasanasukha*, *Alasyata*, *Divaswapana*, *Ativyavaya*, *Gharma* - (expose to more sunlight) and free is called a *gharma*.
 3. **Manasika Karanas** - (i) Ayurvedic etiology of hypertension is described in different mental urges to be restrained such as anger, fear, grief,

NIDANAS

Dosha prakopaka	Agnimandyakar Hetu	Kha-Vaigunya kar Hetu	Dushya dourbalya kar Hetu
Vata prakopaka			
1. Atikatu, Tikta, Kashaya rasa sevana.	Atiguru, Ruksha, Snigdha Amla	Guru bhojana Atyadhika bhojana	Ati katu, tikta, lavana, rasa, Kshara, tikshna
2. Ati Ruksha, Sheeta, laghu aharas	Dravapadartha madhura rasa.	Viruddha bhojana	ahara, Vidahi amla ahara
3. Vatavardhaka ahara vihara after sanshodhana karma	Ati Ushna, sheeta, Tikshna, bhojana. Atyadhika bhojana Adhyashana, Abhisyandi Bhojana	Dosha Prakopata Nidana Dhoomrapana Chinta	Madya sevana Viruddha ahara Dhoomrapana Chinta Ati vyayama Avyayama
4. Vegavidharana	Medya sevana		
5. Ativyyayama, Ativyyavaya	Vega vidharana		
6. Bhaya, shoka, Chinta, Udvega	Bhaya chinta		
7. Upavasa	krodha shoka		
Pitta Prakopa			
Ati ushna, kshara, Katu, lavana aharas. Atitikshna, laghu vidahi anna. Amla rasa Sura souviraka dahi takra, Upavasa Shoka krodha bhaya	—	—	—
Atiguru, Madhura, Snigdha Ahara Atyadhika bhojana Acesta, Alasya. Divasvapana	—	—	—



jealous, lust, greedy, delusion, thinking, sorrowful, tension, Chinta, Kroodha, Bhaya, Shoka and Avasada and mental dhaturupaka doshas (Satva, Raja and Tama)

4. **Nidanarthkara Roga** - madhumeha, Sthooluta, Hridroga, Vrikka roga are the precipitating diseases to form hypertension.

MODERN REVIEW

In more than 95% of cases a specific

underlying cause of hypertension is not found such patient are said to have essential hypertension. In 70% of those with essential hypertension, another member of family is affected and inheritance is thought to be multifactorial.

* Factor influencing the development of essential hypertension.

- i) Genetic and familial.
- ii) Socio-economic related to social deprivation.



- iii) Dietary factor - obesity, high salt intake, high alcohol and caffeine consumption.
- iv) Hormonal factor - High renin, reduce nitric oxide (also atrial natriuretic peptide, antidiuretic hormone effects).
- v) Neurotransmitter - Acetylcholine, noradrenaline, substance P, neuropeptide-g, Serotonin, dopamin, encephalin.

* Causes of secondary hypertension.

- i) Coarctation of aorta
- ii) Renal disease - Parenchymal renal disease e.g. glomerulonephritis chronic pyelonephritis, collagen vascular disease, Polycystic kidney disease, renal artery stenosis.
- iii) Endocrine disorders - Phaeochromocytoma, cushing syndrome, cohn's syndrome (primary hyperaldosteronism), Hyperparathyroidism, acromegaly, primary hypothyroidism, congenital adrenal hyperplasia. 11 beta hydroxylase, 17 hydroxylase deficiency.

Drug - Oral contraceptive containing oestrogen, anabolic steroid corticosteroid, non steroid, anti inflammatory drug carbinoxolone, sympathomimetic agent. Pregnancy ± Pre eclampsia.

Neurogenic - Psychogenic polyneuritis, ↑ intracranial pressure.

COMPLICATIONS OF HYPERTENSION

The major consequence can be classified under five points -

- 1. Hypertension Vascular Disease - Arteriosclerosis, Atherosclerosis
- 2. Cerebrovascular disease - hypertensive encephalopathy, Cerebral haemorrhage, Ischaemic infarction.
- 3. Kidneys and Hypertension - Hypertensive nephrosclerosis, Progressive renal failure, showing hypertension renal impairment.
- 4. Heart Hypertension - Left Ventricular hypertrophy, left Ventricular failure, Congestive Cardiac failure, Corpulmonale, Coronary heart Disease.
- 5. Hypertensive retinopathy - papilloedema, Retinal haemorrhage.

AIMS AND OBJECTIVES

The present clinical study was aimed at establishing the clinical and therapeutic efficacy of the following drug -

- | | | |
|-----------|---|-------------------------------------|
| Trial (A) | - | Prasadini Vati |
| Trial (B) | - | Prasadini Vati with Mansyadi Kwatha |
| Trial (C) | - | Medhyadi Yoga Ghan Vati |



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Trial (D) - Rudrakshadi Ghana Vati with Shirodhara.

MATERIALS AND METHODS

140 clinically established cases of hypertension were selected from O.P.D. / I.P.D. of Department, N.I.A., Jaipur (Raj.) and the drug and symptoms wise response administered as recorded in table B

Ayurvedic Review

In Ayurveda, we considered following things about hypertension -

1. Raktagata Vata -

रुजःस्तीव्राः संसंतापा वैवर्ण्यं कृष्टाऽरुचिः ।
गात्रे चारुंषि भुक्तस्य स्तम्भश्चासुगतेऽनिले ॥

(Ch.Chi. 28/31)

Aggravation of Vayu in the blood gives rise to severe pain, burning sensation, discolouration of skin, emaciation and anorexia, appearance of rashes on the body and heaviness just after meals.

2. धमनी प्रतिचय (च.सू. 20 / 17)

Claim the concept of Dhamani pratichaya which referred to in Kaphaja nanatmaja diseases has much similarity with arterial hypertension.

3. Siragata Vata

शरीरं मन्दरुक्शोफं शुष्पति स्पन्दते तथा ।
सुप्तास्तन्यो महत्यो वा सिरा वाते सिरागते ॥

(Ch.Chi. 28/36)

Aggravation of Vayu in Siras gives rise to mild pain, suffering and edema in body emaciation and throbbing pulsation and creates disorders in Siras when Vata effect Sira.

4. Dhamani kathinya - Hypertension manifests as a symptoms in disorders relating to heart, liver and kidney and as a disease of Dhamnai Kathinya.

Criteria of Assessment

The criteria or assessment before and after the study was based on the following signs and symptoms given below -

Clinical symptoms - The following symptoms has been undertaking for drug trial and symptomatic response -

- | | |
|-------------------|-----------------------|
| ◦ Anger | ◦ Arteriosclerosis |
| ◦ Arti | ◦ Headache |
| ◦ Syncope | ◦ Udiagnata |
| ◦ Insomnia | ◦ Akshiraga |
| ◦ Dharya heenata | ◦ Exresional dyspnoea |
| ◦ Raktaja pidika | ◦ Hrillasa |
| ◦ Vertigo | ◦ Hriddrava |
| ◦ Toda | ◦ Tinnitus |
| ◦ Precardium pain | ◦ Vak kshamata |
| ◦ Dementia | ◦ Nishamutrata |
| ◦ Samana Vaibhava | ◦ Malaise |
| ◦ Polyuria | ◦ Kostha Kathinya |
| ◦ Exhaustation | ◦ Atisweda |
| ◦ BP | ◦ Weakness |
| ◦ Sirograha | ◦ Irritability |
| ◦ Srama | |



Table - A

Age group	Number of patients	Men	Female	
		Percentage	Number of Patients	Percentage
21 - 30	05	03.57	03	02.14
31 - 40	08	05.71	07	05.00
41 - 50	22	15.71	20	14.28
51 - 60	22	15.71	23	16.42
61 - 70	08	05.71	12	08.57
71 - 80	04	02.85	06	04.28

Signs - Following sign's are considered in hypertension

* Arterial pulse - It is firm and bounding.

* BP - BP variably elevated.

* Heart - Left ventricular sound may be enlarge and the first sound at apex is loud and split the aortic second sound is accentuated and high pitch.

* Optic fundi - The following and grade is found -

Grade 1 - Moderate narrowing and irregularity of the retina arterioels.

Grade 2 - Includes the more severe degree grade 1 change and adds arterio venous nipping.

Grade 3 - Includes all the forms of retinal haemorrhage, oedema and selerotic change.

Grade 4 - Includes grade III changes + papilloedema. It is the hard evidence of the malignant phase

OBSERVATION AND RESULTS

The aging population is both medical and sociological problem considering above said things this trial work was performed in 140 cases of hypertension showing the age and the sex incidence in the patients of hypertension.

DISCUSSION

In the following symptoms shirahshool, Bhrama, Karnanada, Krodha,

Observation and results - Table B

Trial A		Trial B			Trial C			Trial D			
No. of patients	35	20			45			40			
Name of drug	Prasadini Vati	Prasadini Vati along with Mansyadi Kwatha			Medhyadiyoga Ghana Vati			Rudrakshadi Ghana Vati			
No. of Group	-	A	B	A	B	C	A	B	C	D	
		Prasadini vati with Mansyadi kwatha	Placebo group	Medhyoga ghana vati	Medhyoga ghanavati + Atenolol 50 mg.	Atenolil 50 mg.	Rudrakshaadi Ghana vati	Shirodhara	Combined	Atenolol 50 mg.	
Duration	1 moth	1 moth	1 moth	1 moth	1 moth	1 moth	1 moth	1 moth	1 moth	1 moth	
Anupana	Plain water	Mansyadi kwatha	Plain water	Plain water	Plain water	Plain water	Plain water	Plain water	Plain water	Plain water	
Quantity	1 gm divided dose BD	1 gm divided dose with 20 ml. of mansyadi kwatha			3 gm divided dose TDS			2 gm BD in divided dose			
Content	Shankpushpi + Sarpagandha in 3:1 ratio	Shankhapusphi and Sarpagandha in 4:1 ratio	Shankpushpi, Vacha, Jatamansi, Kokshura			Rudraksha, Trivrit, Bringaraja, Soopagandha, Amalaki, Anantmoola, Gokshura.					

Mean percentage

Clinical features											
Shirah Shoola	72.61	50	50	72.73	95.45	78.95	93.10	75.86	96.87	64	
Bhrama	78.565	55.55	8.33	52.94	87.50	68.75	83.33	66.67	90.00	54.54	
Karnanada (Tinnitus)	82.13	-	-	-	-	-	100	100	100	20	
Krodha	56.25	14.2	-	7.37	90.00	83.33	72.22	68.75	64.28	53.84	
Klama	58.33	25	00	52.0	85.71	69.32	66.66	58.82	93.75	50	
Anidra (insomnia)	60	66.6	20.0	71.43	92.31	82.35	62.50	83.71	93.93	50.00	
Swasakrichrata	62.22	12.5	0	-	-	-	66.67	52.38	68.75	23.07	
Nishamutrata (nocturia)	-	-	-	-	-	-	66.67	63.64	76.92	44.44	

	Trial A	Trial B	Trial C		Trial D			
Bahumutrata	-	-	-	-	-	77.78	60.00	90.90
Atisweda	-	-	-	-	-	100.0	83.33	87.50
Smriti hrasa (Dementia)	83.33	-	-	-	-	-	-	-
Sirograha	60.00	-	-	-	-	-	-	-
Manah Sankshoobh	67.94	-	-	-	-	-	-	-
Weakness	55.00	-	-	-	-	-	-	-
Arteriosclerosis	20.00	-	-	-	-	-	-	-
Precardial pain	75.00	-	-	-	-	-	-	-
Akshi Roga	50.00	-	-	-	-	-	-	-
Shrama	-	21.40	9.09	-	-	-	-	-
Arafi	-	42.80	17.64	-	-	-	-	-
Udvignata	-	22.22	-10.00	-	-	-	-	-
Dhyanaheenta	-	25.00	9.69	-	-	-	-	-
Hrillasa	-	50.00	33.33	-	-	-	-	-
Toda	-	20.00	25.00	-	-	-	-	-
Vakakshamata	-	50.00	-100.0	-	-	-	-	-
Dhritibransha	-	20.00	00	-	-	-	-	-
Saman-vayabhava	-	12.50	00	-	-	-	-	-
Hridyadrava	85.71	37.50	00	66.667	83.33	75.00	-	-
Kosthakathinya	-	14.20	33.33	-	-	-	-	-
Systolic BP	8.7	9.39	6.27	9.16	20.96	18.90	30.0	20.4
Diastolic BP	5.250	6.05	3.22	6.22	10.22	11.12	22.22	10.2



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Klama, Anidra, Swasakrichhata, Nishamutrata, Bahumutrata, Atisweda and Systolic BP, Diastolic BP the result of Rudraksha ghanavati along with Shirodhara gives best result.

In symptoms Dementia, Sirograha, Manah sankshoobha, Pre-cardial pain, Hriddrava (palpitation) Prasadinivati gives best result, along with Shirahshula, bhrama, Karnanada, Krodha, Klama, Anidra, Swasakrichrata.

In Symptoms Shirahshula, bhrama, Krodha, Klama, Anidra Medhaydi Yoga ghanavati gives better result, but result of Rudraksha ghanavati was best among all

Moderate results were found in Srama, Arati, Udignata, Hrillasa, Toda, Vakkshamata, Drishtibhransa, Samana Vaibhava, Hriddrava, Koshta kathinya and blood pressure.

Minimum results was found in Prasadinivati along with Mansyadi kwatha in symptoms like Toda, Vako kshamata, Dristibhranash, samana vaibhava, while moderate results were found in Arati, Hrillasa and good results were found in other symptoms.

Prevention is better than cure. In Ayurveda mentioned -

स्वस्थस्य स्वास्थ्य रक्षणं आतुरस्य विकार प्रशमनं च । (च.सू. 30 / 26)

पथ्ये सति गदार्तस्य किमौषधि निषेवणै ।
पथ्येऽसति गदार्तस्य किमौषधि निषेवणै ।

Asanas, Pranayamas And Shirodhara

- * During the pharmacological therapy the patients were advised to do some regular isotonic exercise, relaxation therapy including sadvritta, achara rasayana, dinacharya and ratricharya and not to suppress the natural urges.
- * The regular isotonic exercise includes asanas as paschimottanasana, uttanapadasana, Shavasana, Suryanamaskarasana, Dhanurasana, Halasana, Sheershana, Padmasana and Shkhasana etc.
- * Patients were advised to do the exercise 2 times daily (morning & evening) after evacuation or sanitary habits. All the asanas were practiced for 2 minutes and 5 minutes max. each after finishing a asana there was 5 minute relaxation phase with shavasana. This procedure continued for 30 days.
- * Shirodhara
- * Life style modification.

PATHYAPATHYA

Pathya	Apathya
Ahara	
Cereals - Shali and Sasthika rice, wheat	Cereals - Maize barley
Pulses - Green gram blackgram	Pulses - Horsebean
Vegetables - Carrot, tomato, Cucumber, bitter gourd, brinjal, lady's finger, redish, Pumpkin, Onion, spinach, coriander, leap etc.	Vegetables - Potato, Sweet potato, leaves of mustard.
Fruits - Papaya, Pineapple, grapes, orange, lemon, apple, banana, coconut, mango, pomegranate, etc.	Fruits - Excess sour fruit, sugarcane. Oil and Ghee - Mustard oil, Ghee, (vegetable & cow)
Oil - Cocount oil , ground nut oil.	Other - Pruther, chese, milk of buffalo, fat, bone marrow, meat, fish, egg. Excess hot things, excess dry things, excess oily substances, excess salt and salty things, excess eating and over eating, unwholesome diet, alcohol, tea, coffee, smoking, any addiction excess heavy and light foods, fasting, chilli, pickle, contraceptive pills etc.

Vihara	
Sleeping, keeping suppressible urges, forbiding of thinking, fear, depression, sorrowfulness, tension, excess physical exercise, morning and evening walk, expose to fresh air, light, fresh water taking, according to capacity, fasting, cycling, low grade exercise, maintaining the rules and regulation of Ahara, early to bed and early to rise, maintain of behavioural rasayana and daily seasonal regimens.	Suppression of natural urges, excess thinking, anger, fear, tension, mental exercise, excess physical exercise, night watching, coitus, laziness, expose to more light and fire excess taking of cold drinks, AC rooms etc. factory works.



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हिन्दी सारांश

वृद्धावस्था में रक्तचाप व्याधि की घातकता तथा उसकी आयुर्वेदिक चिकित्सा

प्रो. लोकनाथ शर्मा

वार्धक्य एक प्राकृतिक प्रक्रिया है। उच्च रक्तचाप एक जीर्ण व्याधि है जो वृद्ध लोगों में युवाओं की अपेक्षा अधिक मिलती है। 140 उच्च रक्तचाप के रोगियों पर एक चिकित्सीय अध्ययन अंतर्रंग व बहिरंग विभाग, नेशनल इंस्टीट्यूट ऑफ आयुर्वेद, जयपुर में किया गया जिसमें रोगियों को 4 श्रेणीयों में विभाजित किया - प्रथम श्रेणी में प्रसादनी वटी, द्वितीय श्रेणी में प्रसादनी वटी मांस्यादि क्वाथ के साथ, तृतीय श्रेणी में मेधादि योग घन वटी तथा चतुर्थ श्रेणी में रुद्राक्षादि घनवटी के साथ शिरोधारा कराई गई। प्रस्तुत अध्ययन से यह सिद्ध होता है कि उपरोक्त आयुर्वेदिक औं-धियां उच्च-रक्तचाप की चिकित्सा में महत्वपूर्ण लाभकारी हैं। इस अभिनय में प्राचीन तथा आधुनिक चिकित्सकों का उच्च-रक्तचाप का निदान तथा चिकित्सा सिद्धांत संबंधित मत को भी प्रकाशित करने की कोशिश की गई है।