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STUDY OF EFFICACY OF PIPPALI VARDHAMANAK FOR TREATMENT OF VATARAKTA WITH SPECIAL REFERENCE TO GOUT

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ABSTRACT

Introduction- *Vatarakta* is an illness where both *Vata* and *Rakta* are afflicted by distinct etiological factors. *Vatarakta* is also possible when *Gati* of *Vata* is hindered by morbid *Kapha Dosha*. In modern science Gout shows similar characteristics like *Vatarakta*. It is occurred by accumulation of urate crystals in tissues. It starts from small joints to major joints. *Pippali Vardhamanak* is advised by Aacharya Sushruta for treatment of *Vatarakta* and other *Vata-Kaphaj Vyadhi*. In this *VardhamanMatra* of *Pippali* is given as said by Aacharya. *Pippali* has anti-inflammatory, rejuvenating properties and also act as *Vata-Kapha Shamak*. **Aim-** To evaluate therapeutic efficacy of *Pippali Vardhamanak* in *Vatarakta* with special reference to Gout.

Objectives- To study therapeutic efficacy of *Pippali Vardhamanak* to reduce the symptoms of *Vatarakta* with special reference to Gout. **Materials and Methods-** The present study was conducted in 30 patients having classical symptoms of *Vatarakta*. The patients were given Pippali *Vardhamanak* for 15 days.

Pippali has *Katu Ras, Laghu-Teekshna Snigdha Guna, Madhur Vipaka* and *Anshna Veerya*, due to these properties it acts as *Kaphashamak, Vatashamak and Raktashama, Strotoshodhana*. Piperine inhibits monosodium urate crystals. **Conclusion-** *Pippali Vardhamanak* gives significant relief in *Vatarakta* with special reference to Gout. Keywords: Vatarakta, Gout, Pippali, Pippali Vardhamanak

INTRODUCTION

Vata is one among three *Doshas* and it is responsible for all body activities. Vitiated *Vata Dosha* is responsible for maximum disease in body, *Vatarakta* is among them. The disease caused due to *DustaVata* and *Dusta Rakta* called as *Vatarakta*. It is disease of *Vata* where *Rakta* is prominent.^[1]it is also named as *Vatashonit*. It is explained in *Vata Vhyadhi* by Aacharya Sushruta.

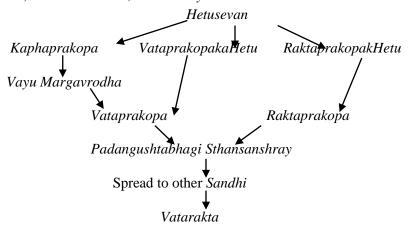
Causes of *Vatarakta*^{[2],[3]}-*Vata* and *RaktaPrakopa*.

AharajHetu- Kashaya-Katu-Tikta- Amla- Lavan Rasatisevan, Usna-Ruksha AharAtisevan, Alpbhojan, Abhojan, Adhyashana, Viruddhashana, Rutusatmya Viparyaya Snehadi Sevana, Klinna Shushka Mansa-Pinyak-Mulak Kulattha-Nishpav-Shak-Palal-Ikshu Dadhi -Atisevan, etc.

ViharajHetu- Ativyayam, Adhva-Hasti-Ashva-Ustrayana, Prajagaran, Abhighata, Ambukrida, Plavan, Langhan, Shthula- Achankramansheela-Diwaspana-Aswapna.

Manasik Hetu- Krodha, Shoka, Bhaya, Atichinta, etc. <u>Samprapti^{[4],[5]}-</u>

Path of vitiated *Rakta Dosha* is obstructed by vitiated *Vata Dosha* initially and vitiate *Rakta Dosha* further.



<u>Poorvaroopa</u>^[6]- Karshnyata, Asweda, Atisweda, Sparshadnyatva, Kshte Atiruk, Aalasya Sadan, Sandhishaithilya, Pidakodgama, Spurana, Sandhi Ruk, Kandu, Supti, Vaivarnya, Daha, Shopha, Etc.

<u>Lakshana</u>-

UttanVatarakta^[7]: Kandu, Daha, Ruk, Tod, Spuran, ShyawTvak, Suptata, Bheda.

Gambhir Vatarakta^[8]: Stabdha-KathinShotha, Shyavata, TamtraTvak, Toda, Spuran, Khanjatva, Pangutva, Paka.

In modern science Gout is described as a systemic disease that results from the deposition of monosodium urate crystals (MSU) in tissues. MSU crystals can be deposited in all tissues mainly in and around joints forming tophi. Hence Gout is mainly diagnosed by identification of the MSU crystals by joint aspiration or in tophi aspirate. Increased serum uric acid above a specific threshold is a requirement for the formation of uric acid crystals. Sudden unexpected burning pain, swelling redness, stiffness in affected joints are the major symptoms of Gout. It commonly affects big toe of leg and then spread to other joints as described in Ayurveda.

Aim-To evaluate therapeutic efficacy of *Pippali Vardhamanak* in *Vatarakta* with special reference to Gout.

Material and Method-

- Clinical Source: OPD Patients Department of Kayachikitsa of Pakwasa Ayurved Mahavidyalaya, Nagpur 440009
- Literary source: Literary aspect of study was collection from Classical Ayurvedic texts, Modern texts, Journals.

• Drug source: *Pippali* was purchased from reputed Ayurvedic Pharmaceutical shop, Authentication and Standardization was done.

Materials- *Pippali* in *Vardhamana Matra* as a treatment for *Vatarakta* which is described in following text-

PippalirvaKsheerpishtavaPanchabhivruddhyaDashabhivruddhyavapibet...TadetatPippalivardhamanakam VatshonitVishamjwara...||^[9]-Su. Chi. 5/12

Properties:

Anushna Katuka Snigdha Vatashleshmhari Laghu//^[10] Pippali Madhusanyukta Medkaphavinashini|^[11] Ras-Katu

Veerya-Anushna Sheeta

Vipak- Madhur

Guna- Laghu, Snigdha, Teekshna

Doshghnta-Vata-Kapha Shamak, Pittawardhak

Rogaghnata- Shwas, Kasa, Vatarakta, Vrushya, Medhya, Yakshma, Pleehavruddhi, Vishamjwara, Etc.

Methods of drug intake-

a) Dose-*Ksheerpishta* or *Vaaripista Pippali* was given in *Vardhamana Krama*, starting from 1 g of *Pippali Kalka*. It was increased by 1 g daily upto 5 g and for 5 days this constant dose is given. Then it was tapered by 1 g daily upto 1 g. This way *Pippali Vardhamanak* is given for 15 days to the patient.

- b) Form- kalka (Ksheerpista or Vaaripista)
- c) Route of administration- Oral
- d) Time- Twice a day

e) Duration of drug- 15 days

Investigations-

Routine-CBC, ESR

Specific- Serum uric acid, C- reactive protein

Inclusion Criteria-

- Patients with classical features of *Vatarakta* explained in classical texts.
- Patients of any socio-economic status, both sexes and all ethnic origins.
- Patients with age group of 16-55 years.
- Both fresh and treated cases were selected.

Exclusion criteria-

- Patients with uncontrolled metabolic and other severe disorder.
- Psychiatric illness and pregnant women.

Parameters	Symptoms	Grade	
Sandhishoola	No pain	0	
(pain in joints)	Pain only on movement	1	
	Pain on rest without disturbance in routine	2	
	Severe pain, routine disturbed	3	
Sandhishotha	0		
(joint swelling)	Mild swelling	1	
	Moderate swelling	2	
	Marked swelling	3	
Sandhigraha (Restriction of	No restriction	0	
movement)	Restricted movement but can perform routine	1	
	Patient Cannot perform daily routine except personal care	2	
	Patient needs help for personal care	3	
ESR Test	Normal	0	
	Mild 21-30mm/hr	1	
	Moderate 31-40mm/hr	2	
	Severe 41 and above0	3	
Sr. uric acid	Normal 2.4-7 mg/dL	0	
	Mild 7.1-7.5 mg/dL	1	

Assessment parameters

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	Moderate 7.6-8.0 mg/dL	2
	Severe above 8 mg/dL	3
CRP test	Normal 0-6 mg/dL	0
	Mild 6.1-15mg/dL	1
	Moderate 15.1-25mg/dL	2
	Severe above 25mg/dL	3

Table 1: Assessment Parameters

Assessment criteria for effect of *PippaliVardhmanak* on symptoms of *Vatarakta* Unchanged- less than 25 % relief in symptoms Improved- 25-49 % relief in symptoms Markedly improved- 50-99 % relief in symptoms Complete remission- 100 % relief in symptoms **Observation and Result-** Maximum incidence of *Vatarakta* was in the age group 31-50 years, male sex, vegetarian dietary habit, urban area. Most of patients were having duration of illness 1-3 years. 66.34% of patients have no family history of *Vatarakta*. 86.88% of patients had no history of trauma to joints. 72.5% patients had *Vata-KaphajPrakriti*.72% of patients were of *Madhyam-Satmya*.

a) Demographic data

b) Parameters- Parameters before and after the treatment was compared and statistically analyzed.

Sign and symptoms	Mean score		Difference	% relief	SD	SE	P value
	Before treatment	After treatment					
Sandhishoola	2.5	1.4	1.1	44	0.57	0.18	0.002
Sandhishotha	2.9	0.9	2.0	68.9	0.67	0.21	0.001
Sandhigraha	3.2	0.5	2.7	84.4	0.67	0.21	0.001
ESR Test	2.0	0.7	1.3	65	0.67	0.21	0.002
Sr. uric acid	2.6	0.5	2.1	80.7	0.57	0.18	0.001
CRP	2.0	0.6	1.4	70	0.69	0.22	0.002

Table 2: Parameters before and after the treatment was compared and statistically analyzed

DISCUSSION

Dusti of Vata and Rakta is main cause of Vatarakta. PippaliVardhamanak is very effective, because it can be administered in its maximum doses without any discomfort to the patient. Pippali is one of the Rasayan drug described in Ayurveda^[12]. It has rejuvenating and immunomodulatory properties, which helps in treating Vatarakta. Pippali included in Shoolprashaman Mahakashay^[13] by Aacharya Charaka and VatskadiVarga^[14] of Ashtang Hridaya which act as shoolnashak. Therefore, Pippali reduced pain in Vatarakta. Pippali is Vatshamak by its Madhur Vipak and Snigdha Guna, Kaphashamak by its Laghu-Teekshna Guna and Katu Rasa& Raktashamak by its AnushnaSheeta Veerya and Madhura Vipaka. Hence it acts on Nidanaj Hetu of Vatarakta disease. Active component of *Pippali* piperine found effective in inhibition of monosodium urate crystal induced inflammation in gouty arthritis in mice.^[15]

The use of *Pippali Vardhamanak* in 30 registered cases of *Vatarakta* showed 44% relief from symptoms of pain in joints, 68.9% relief from symptoms of swelling over joints, 84.4% relief from symptoms of restricted movements of joints, 65% reduction in values of ESR, 80.7% reduction in values of serum uric acid and 70% reduction in CRP value. All these results were found to be statistically highly significant (P < 0.002). No specific adverse effects were noticed in any of patients registered for the present clinical trial.

CONCLUSION

PippaliVardhamanak has a lot of beneficial effects in the patients of *Vatarakta*. It is free from any side effects and also very much cost effective.

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