

# A comparative randomised clinical trial of *Amrutadi kwath* and *Vasadi kath* in the management of *Vatarakta* (Gout)

## Research Article

Dipashri Kailas Kadam<sup>1\*</sup>, Ravin S Chandak<sup>2</sup>, Swati Soman<sup>3</sup>

1. PG Scholar, 2. Principal & PG Guide & Professor, 3. HOD & Professor,  
Department of Kayachikitsa, SST's Ayurved College Sangamner, Maharashtra. India.

### Abstract

*Vatarakta* specially occurs in *Madhyavastha* which is *Parihanikala* in which *Dhatukshaya* takes place. *Khavaigunya* (*Rikta srotas*) occurs in *Asthi* which is responsible for the production of *Vatarakta*. *Vatarakta* is a disease related with *khavaigunya* found in *raktavaha srotas* which include vitiated *vata* and *rakta*, so termed as *vatarakta*. Due to properties of *sukshmatva* and *saratva* of *vayu*, *dravatva* and *saratva* of *rakta* they spread all over the body. Symptoms of *Vatarakta* are *shool*, *toda*, *daha*, *vaivarnya* described by various *acharya*. Symptoms of Gouty arthritis are similar as of *vatarakta* Joint pain, Swelling, stiffness, disability and crepitations over small joint. Gouty arthritis is the most common form of arthritis, which occurs in middle age. *Amrutadi Kwath* and *Vasadi Kwath* have most of contents are *snigdha*, *guru* and *mrudu*. By virtue of these properties, this alleviates *vata* and *pitta*. Hence these are used in diseases which arise due to vitiation of *vata* and *pitta*. in *vatarakta* by its *vatapittashamaka prabhav* and *snigddha*, *mrudu gunas* by *vatanulomana kriya*. *Amrutadi kwath* is very effective in relieving the symptoms of *vatarakta*. Materials and Method: Total 80 patients of the age group 25-60 years presenting with signs and symptoms of *vatarakta* were selected randomly from OPD of the department of *kayachikitsa*. The 40 patients of trial group were treated with *Amrutadi kwath* and 40 patients of control group were subjected to *vasadi kwath*. Conclusion: *Amrutadi Kwath* showing significant results than *Vasadi Kwath* in symptoms of *Vatarakta* (Gout).

**Keywords:** *Ayurveda*, *Vatarakta*, *Amrutadi Kwath*, *Vasadi Kwath*, Gout, Serum Uric Acid, ESR.

### Introduction

*Vatarakta* is a disease related with *khavaigunya* found in *raktavahastrotas* which include vitiated *vata* and *rakta*, so termed as *vatarakta*. Due to properties *sukshmatva* and *saratva* of *vayu*, *dravatva* and *saratva* of *rakta* they spread all over body.(1) *Vatarakta* possess a challenge to the physician owing to its apparent chronicity, incurability, complications and morbidity. Despite of the administration of best available modern drugs, the disease has a tendency to persisting progress and cripples the patients. The Ayurvedic line of treatment defends a good deal on the different stages of disease.

The etiology and symptomatology of gout is very much similar to that of *vatarakta*. Gout is a pathological reaction of joints or particular tissues. Purine is an important byproduct of incomplete protein metabolism, leading into the excess of production of uric acid through their metabolic pathways.(2)

The basic clinical features of *Vatarakta* have been recognized in Ayurvedic medicine for thousands of years. The two oldest texts on Ayurvedic medicine, the

*Charaka Samhita* and *Sushruta Samhita*, (3) both of these texts describe features of *Vatarakta*, a diverse group of symptoms that are organized according to the systemic and local manifestations of *Vata* and *Rakta*. Much later *Vatashonita* is described in the *Ashtanga Hrudaya*(4). clinically *Vatarakta* is correlated with gout. Gout manifests as sudden swelling and severe pain usually in a single joint. This is due to an inflammatory response within a joint following deposition of uric acid crystals. Uric acid is a normal constituent of our body formed during disintegration of senescent cells as also from degradation of certain food items containing high levels of purines. (5)

*Vatarakta* based on clinical occurrence, anatomical site and severity of the disease respectively. *Vatarakta* is a *vyadhi* typically affects the extremities along with the systemic involvement. Mutual as well as interrelated obstruction to circulation of *rakta dhatu* as well as *vatadosha* within the *raktamarga* is the prime pathology in *vatarakta*. Pathology of *vatarakta* revolves around *avarana* as a pathological process which apparently looks alike *sanga*.(6)

When a person takes excessive foods and exposes to lifestyle activities which aggravate *vata* and also is used to long distance rides on bikes and vehicles, the *vata* gets severely aggravated by its own causes. (7) On other hand *rakta* gets vitiated by the consumption of *lavana*, *amla*, *katu*, *kshara* etc. The vitiated *rakta* quickly blocks the passages of *vayu* and interferes with its smooth movements. The *vata* whose passages are

#### \* Corresponding Author:

**Dipashri Kailas Kadam**

PG Scholar, Department of Kayachikitsa,  
SST's Ayurved College Sangamner,  
Maharashtra. India.

Email Id: [dipashrikadam6370@gmail.com](mailto:dipashrikadam6370@gmail.com)

blocked by *rakta* further undergoes vitiation and further contaminates the *rakta*. The *rakta* vitiated by *vayu* later burns the whole blood in the body. The blood contaminated by vitiated *vayu* leaves its place and gravitates towards the foot. This vicious amalgamation of vitiated *vata* and *rakta* is called *vatarakta*. Later the pitta and kapha join this amalgamation and makes the clinical picture of the disease even more complicated. (8)

There are two treatment protocol described in Ayurveda which are *shaman chikitsa* and *shodhanachikitsa*. In *shamana* therapy a special diet, contradictory to the qualities of the increased dosha is prescribed to the patient for suppressing or balancing the aggravated doshas then the diseases are chronic it is difficult to treat through the balancing methods of *shamana* therapy that takes less time and cure the diseases in which the doshas are situated at much deeper level. (9)

Gout is the most common form of inflammatory arthritis in men (5-27 per 1000 men). The general prevalence of gout is 1-4% of the general population. In western countries, it occurs in 3-6% in men and 1-2% in women. In some countries, prevalence may increase up to 10%. Prevalence rises up to 10% in men and 6% in women more than 80 years old. Gout rarely occurs in children and in women before menopause. Raised uric acid in children can be due to inborn errors of metabolism. (10)

The efficacy and applicability of the *Shodhana* procedure have been highlighted in classics with respect to disease management. *Basti* is the main treatment of *Vatarakta*. It is being proven in one or the other way that only Ayurveda can cope with the necessities of modern man with regards to health and happiness. (11)

Thus, the age- old practices are coming to forefront to provide curative and palliative care to the disease. However, as per Acharya *Chakradatta Amrutadi Kwath*(12) and *Vasadi Kwath*(13) are given as effective in the management in *Vatarakta*, are easily available and cost effective and hence this study entitled as A comparative randomised clinical trial of *Amrutadi Kwath* and *Vasadi Kwath* in the Management of *Vatarakta*(Gout)has been undertaken.

## Materials and Methods

Total 80 patients of the age group 25-60 years presenting with signs and symptoms of *vatarakta* were selected randomly from OPD of the department of *kayachikitsa*. The 40 patients of trial group were treated with *Amrutadi kwath* and 40 patients of control group were subjected to *vasadi kwath*.

### Method of selection of study subjects

#### Inclusion criteria

- Patients having age 25-60 years of either sex was selected for the study.
- Classical Sign and symptoms (*Ruja, Daha, Sparshasahatva, Shoth*) was included.
- Patients having serum Uric Acid level > 7mg/dl was enrolled in the study.
- Those patients who was ready to give informed consent.

#### Exclusion Criteria

- K/C/O Rheumatoid arthritis
- Patients having serum Uric Acid level < 7mg/dl
- K/C/O DM,HTN, Pregnant and lactating women.
- Patients who are not willing to give informed consent.

### Assessment criteria

**Table 1: Subjective Parameters**

Sr no.	Symptoms	Details	Score
<b>SUBJECTIVE PARAMETERS.</b>			
1	<i>Ruja</i> {Pain in joint (Great Toe)}	No Pain	0
		Mild pain but able to continue work. Relieves on its own	1
		Moderate, frequent pain Interferes routine work. Relieves after taking analgesics.	2
		Severe pain not tolerable, not relieved fully even after taking analgesics.	3
2	<i>Daha</i> (Burning sensation)	No Burning sensation	0
		Mild Burning sensation	1
		moderate Burning sensation	2
		Severe Burning sensation	3
3	<i>Sparsh asahatva</i> (Tenderness)	No tenderness	0
		Patients complaints pain	1
		Patients complaints pain and Winces	2
		Patients complaints pain and withdraws	3
4	<i>Shoth</i> (Edema)	No swelling	0
		Mild swelling	1
		Moderate swelling	2
		Severe swelling	3
5	Walking ability	Walk easily	0
		With mild difficulty	1
		With moderatedifficulty	2
		Unable to walk without support	3

**Objective Parameters**

1. Serum Uric Acid.
2. ESR.

**Table 2: Drug Regimen**

Subject	Group A	Group B
Number of patients	40	40
Age group	25-60yrs	25-60yrs
Drug name/Karma	<i>Amrutadi Kwath</i>	<i>Vasadi Kwath</i>
Route of Administration	Oral (Adhobhakta)	Oral (Adhobhakta)
<i>Bheshaj sevan kaal</i>	<i>Apankaal</i>	<i>Apankaal</i>
Dose	30 ml twice a day	30 ml twice a day
Duration	8 weeks	8 weeks
Follow up	1 <sup>st</sup> ,4 <sup>th</sup> and 8 <sup>th</sup> week	1 <sup>st</sup> ,4 <sup>th</sup> and 8 <sup>th</sup> week

**Results and Discussion**

**Statistical Analysis in between the Group A and Group B  
(Subjective Parameters by Mann Whitney’s Test)**

**Table 3: *Ruja* (Pain in joint)**

Mann Whitney	N	Mean	SD	U	P	Result
Group A	40	2.075	0.694	556.0	P=0.010	Significant
Group B	40	1.675	0.616			

**Table 4: *Daha* (Burning sensation)**

Mann Whitney	N	Mean	SD	U	P	Result
Group A	40	2.000	0.555	613.0	P=0.044	Significant
Group B	40	1.725	0.716			

**Table 5: *Sparshasahatwa* (Tenderness)**

Mann Whitney	N	Mean	SD	U	P	Result
Group A	40	1.975	0.660	592.5	P=0.031	Significant
Group B	40	1.650	0.770			

**Table 6: *Shoth* (oedema)**

Mann Whitney	N	Mean	SD	U	P	Result
Group A	40	1.975	0.660	558.5	P=0.013	Significant
Group B	40	1.525	0.905			

**Table 7: Walking ability**

Mann Whitney	N	Mean	SD	U	P	Result
Group A	40	2.000	0.816	564.0	P=0.015	Significant
Group B	40	1.550	0.677			

**Objective parameters**

**Table 8: ESR**

Group	N	Mean	SD	SE Mean	T value	P	Result
Group A	40	24.825	7.851	1.241	5.545	P<0.001	Significant
Group B	40	16.225	5.881	0.930			

**Table 9: Serum uric Acid**

Group	N	Mean	SD	SE Mean	T value	P	Result
Group A	40	1.850	0.736	0.116	2.501	P=0.014	Significant
Group B	40	1.475	0.599	0.0946			

**Effect of therapy according to relief in Symptoms' score**

**Table 10: Relieved score and %relief in Symptoms' score in Group A**

Sr. No.	Symptoms (Group A)	B.T.	A.T.	Relieved	% Relief
1	<i>Ruja</i> (pain in joint)	117	34	83	70.94
2	<i>Daha</i> (Burning sensation)	115	35	80	69.56
3	<i>Sparshasahatwa</i> (Tenderness)	112	33	79	70.53
4	<i>Shoth</i> (edema)	110	31	79	71.81
5	Walking ability	109	29	80	73.39
	<b>Overall result</b>				<b>71.246</b>

**Table 11: Relieved score and %relief in Symptoms' score in Group B**

Sr. No.	Symptoms (Group B)	B.T.	A.T.	Relieved	% Relief
1	<i>Ruja</i> (pain in joint)	106	39	67	63.20
2	<i>Daha</i> (Burning sensation)	108	39	69	63.88
3	<i>Sparshasahatwa</i> (Tenderness)	103	37	66	64.07
4	<i>Shoth</i> (edema)	98	37	61	62.24
5	Walking ability	102	40	62	60.78
	<b>Overall result</b>				<b>62.834</b>

**Total Effect of therapy**

**Table 12: Effect of therapy according to relief in Symptoms score of group A**

Sr. No.	Improvement	Symptoms	No. of Symptoms
1	<b>Good Improvement</b> (75% - 100%)	-----	0
2	<b>Moderate Improvement</b> (50% - 75%)	<i>Ruja</i> (pain in joint), <i>Daha</i> (Burning sensation), <i>Sparshasahatwa</i> (Tenderness), <i>Shoth</i> (edema) and Walking ability	5
3	<b>Mild Improvement</b> (25% - 50%)	-----	0
4	<b>Unchanged (No Improvement)</b> (0% - 25%)	-----	0

By using *Amrutadi Kwath on Vatarakta* (Gout) symptoms as *Ruja* (pain in joint), *Daha* (Burning sensation), *Sparshasahatwa* (Tenderness), *Shoth* (edema) and Walking ability were got the 50% to 75 % relief.

As for *Ruja* (pain in joint) symptom in Study group shown the 70.94 % relief followed by 69.56 % relief for *Daha* (Burning sensation), 70.53 % for *Sparshasahatwa* (Tenderness), 71.81 % for *Shoth* (edema), for 73.39 % for Walking ability symptoms of all 40 patients of *Vatarakta* (Gout). Therefore they were grouped into moderate improvement.

**Table 13: Effect of therapy according to relief in Symptoms score of group B**

Sr. No.	Improvement	Symptoms	No. of Symptoms
1	<b>Good Improvement</b> (75% - 100%)	-----	0
2	<b>Moderate Improvement</b> (50% - 75%)	<i>Ruja</i> (pain in joint), <i>Daha</i> (Burning sensation), <i>Sparshasahatwa</i> (Tenderness), <i>Shoth</i> (edema) and Walking ability	5
3	<b>Mild Improvement</b> (25% - 50%)	-----	0
4	<b>Unchanged (No Improvement)</b> (0% - 25%)	-----	0

By using *Vasadi Kwath on Vatarakta* (Gout) symptoms as *Ruja* (pain in joint), *Daha* (Burning sensation), *Sparshasahatwa* (Tenderness), *Shoth* (edema) and Walking ability were got the 50% to 75 % relief.

As for *Ruja* (pain in joint) symptom in Study group shown the 63.20 % relief followed by 63.88 % relief for *Daha* (Burning sensation) 64.07 % for *Sparshasahatwa* (Tenderness), 62.24 % for *Shoth* (edema) and 60.78% for Walking ability symptom of all

40 patients of *Vatarakta* (Gout). Mode of Action of The Drug shows as *Amrutadi Kwath* and *Vasadi Kwath* have most of contents are *snigdha*, *guru* and *mrudu*. By virtue of these properties, this alleviates *vata* and *pitta*. Hence these are used in diseases which arise due to vitiation of *vata* and *pitta*. in *vatarakta* by its *vatapittashamaka prabhav* and *snigddha*, *mrudu gunas* by *vatanulomana kriya* and *deepan pachan*.

*Guduchi* has *katu*, *tikta*, *kashaya rasa* and *ushna virya*, useful in *tridosh shamaka* and also for

*agnivardhak kriya*. *Guduchi* has alkaloids, diterpenoid lactones, glycosides, sesquiterpenoid, phenolics, aliphatic compounds and polysaccharides which act on *vatarakta* by *vatapitta nashaka* properties. Hence *Amrutadi Kwath* is beneficial in management of *vatarakta*.

The present study was conducted with limited time, limited facilities and limited number of patients. A study of larger group of patients may help to comprehend the mode of action of the trial. In the future, additional studies may be performed to take the present issue further in a proper perspective and future possibilities of reduction of modern drug requirement.

## Conclusion

Out of 40 patients in Group A Good improvement was seen in 15 patients. Moderate improvement was seen in 19 patients. Mild improvement was seen in 06 patients. In Group B out of 40 patients, A Good improvement was seen in 07 Moderate improvements was seen in 20 patients, Mild improvement was seen in 13 patients. In view of Observations and statistical analysis, concluded that *Amrutadi Kwath* showing significant results than *Vasadi Kwath* in symptoms of *Vatarakta* (Gout).

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