

A CLINICAL STUDY TO EVALUATE THE VIRTUE OF *PATOLADI KWATH* IN
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ABSTRACT

Ayurveda is a traditional science of life that emphasizes individualized care and a holistic approach to health. Lifestyle diseases are conditions that are mostly caused by sedentary lifestyle of the individual. Changes in Aahara like (Fast food, Junk food, a high-protein diet), Vihara like (insufficient physical activity, incorrect driving techniques, etc.) and Mansika Bhava like (Stress, Krodha etc.) are contributing factors to an increased number of incidences of Vatarakta. Thus, an emphasis on Vatarakta Hetu (causative factors) is must to limit the prevalence and to overcome the disease. So, for this research work we selected Patoladi Kwath from Chakradatta Vatarakta Chikitsa Prakarnam Shloka No. 11 to evaluate their virtue in the management of Vatarakta (w.s.r. to Gouty Arthritis). For this research work 20 diagnosed patient of Vatarakta having age of 20 to 60 years were registered and sequentially randomized in single group. Leaving 6 dropout 17 patients were treated with 50 ml Patoladi kwath 2 times a day after meal for 45 days. The result of the treatment was accessed based on the improvement in terms of symptomatic relief and improvement in terms of Lab investigation i.e, decrease in Serum Uric Acid level.

KEYWORDS: Thus, an emphasis on Vatarakta Hetu (causative factors) is must to limit the prevalence and to overcome the disease.

INTRODUCTION

Lifestyle diseases are conditions that are mostly caused by sedentary lifestyle of the individual. Various chronic and non-communicable diseases with potentially life-threatening implications can be brought on by habits that discourage people from engaging in physical exercise, eating a nutritious diet, and push them toward sedentary routines. In Ayurvedic classic literature including the *Charaka Samhita*, *Sushruta Samhita* and *Ashtang Hridaya*, one of the earliest types of diseases known as *Vatarakta* has been described. The *Vata Dosha* and *Rakta Dhatu* are primary *Sampraptighatakas*^[1] of this disease and each of them have a separate origin and the source for the name of this disease.

Individuals modern lifestyles have undergone a significant transition and are becoming increasingly opulent. There is a break to physical activities and acceleration to stressful actions. People are not adhering to proper *Aahara Vidhi* and *Vihara* because they are not following the concepts of *Ayurveda* such as *Dinacharya* (daily regimens) and *Rutucharya*^[2] (seasonal regimens). All *Samhitas* describe *Vatarakta* extensively, suggesting that it was widespread throughout that time period as

well. In present era, number of patients diagnosed with *Vatarakta* are growing progressively. Changes in *Aahara* like (Fast food, Junk food, a high-protein diet), *Vihara* like (insufficient physical activity, incorrect driving techniques, etc.) and *Mansika Bhava* like (Stress, *Krodha* etc.) are contributing factors to an increased number of incidences of *Vatarakta*. Thus, an emphasis on *Vatarakta Hetu*^[3] (causative factors) is must to limit the prevalence and to overcome the disease.

Both *Vata Prakopaka* and *Rakta Dushtikara Nidana*^[4] are involved in *Samprapti*^[5] of the disease. When a person does not opt for purification process like *Vamana* and *Virechana* or due to trauma, *Rakta Dhatu* gets vitiated. The same individual with vitiated *Rakta Dhatu* when starts taking *Vata-Prakopaka Ahara* and *Vihara*, become prone to *Vata-Vridhhi*. Already vitiated *Rakta Dhatu* obstructs the path of *Vridh Vata*, in which *Vata* has to flow. Vitiated *Vata* become *Aavrut* with vitiated *Rakta Dhatu*. *Vridh* and obstructed *Vata* inturn vitiates the whole *Rakta* and manifests as *Vatarakta*. It is characterized by severe pain, tenderness, inflammation and burning sensation in the affected joints.

It is a metabolic disease that most often affects middle-aged to elderly men and postmenopausal women. It results from an increased body pool of urate with hyperuricemia. *Vatarakta* is a *Vata Pradhana* (*Vata* predominant) *Tridoshaja Vyadhi*. *Vatarakta* is a major *Vata Vyadhi* caused due to *Avarana* (occlusion) pathology. The symptomatology of Gout has striking similarities with those explained in *Vatarakta*. Numerous studies have established the impact of gout on patient's morbidity and mortality. Despite major advances in treatment of gout, many patients with gout are not properly controlled and continuing with recurrent flares of gouty arthritis. Because of this, an effort is made here to comprehend *Vatarakta* (gout) from both modern and *Ayurvedic* conceptions and to examine the condition's management from an *Ayurvedic* perspective.

Patoladi kwath mentioned in *Chakardutta (Vatarakta Chikitsa Prakarana)* and have been selected for the present study.

AIMS AND OBJECTIVES

- To evaluate *Nidan* (Etiology) of *Vatarakta*.
- To review the concept of *Vatarakta*.
- To review the *Ayurvedic* and modern literature related to *Vatarakta*.
- To assess the effect of *Patoladi Kwath* in *Vatarakta*.

1. MATERIALS AND METHODS

Inclusion criteria

- Patients willing to participate in trial.
- Patient in the age group between 20–60 years, irrespective of sex and socioeconomic status.
- Patients having signs and symptoms of '*Vatarakta Roga*' (Gouty Arthritis).
- Patient having S. Uric Acid ranges between 6-9 mg/dl in females and 7-9 mg/dl in males.

Exclusion criteria

- Patients not willing for the trial.
- Patients suffering from paralysis.

DOSE OF FORMULATION

Drug	PatoladiKwath
Dose	50 ml B.D.
Route of administration	Oral
Frequency of administration	BD
Duration of Administration	45 Days
Follow up	After 15 days (3 follow ups)

FOLLOW UP

- 1st visit on the 15th day of trial
- 2nd visit on 30th day
- 3rd visit on 45th day

Patoladi kwath – Preparation of Decoction

Acc to Acharya Yadavi Trikamkji

All Dried contents were taken in equal ratio. (Total quantity for single dose) 14 gms of drug will be taken in

- iii. Patient with extremely reduced joint space.
- iv. Patient having severe crippling deformity.
- v. Patient with bone deformity.
- vi. Patient suffering from other types of Arthritis like Osteo-Arthritis, Rheumatoid Arthritis, Septic Arthritis.
- vii. Patients having any type of arthropathy such as Neoplasm of supine, Ankylosing spondylosis, Traumatic arthritis and Pyogenic osteomyelitis etc.
- viii. Patients having associated cardiac disease, Tuberculosis, Diabetes mellitus, Malignant Hypertension, Renal function Impairment, Hypothyroidism, RHD etc.
- ix. Pregnant lactating mother.

INVESTIGATIONS

- Blood TLC, DLC, HB%, ESR.
- Urine -Routine (R) and Microscopic(M).
- Serum Uric Acid.
- Rheumatoid Factor.
- Liver Function Test Sr Bilirubin, SGPT, SGPT, Sr. Alkaline Phosphatase.
- Renal Function Test - Blood Urea, Sr Creatinine.
- Blood Sugar - F/PP.
- X-Ray of involved Joint (AP View & Lateral view (If needed)).

TRIAL DRUG

Name of Drug - *Patoladi kwath*

पटोलकटुकाभीरु त्रिफलासमृतसाधितम्

ववाथपीत्वाजयेज्जंतुसदाहंवातशोणितम्

(चक्रदत्तवातरक्तविकित्साप्रकरणम्) (श्लोक no.11)

❖ The raw drugs were taken from open market and were identified by Dravyaguna department. The Drug was prepared in college Charaka Pharmacy Paprola under the supervision of Ras Shastra evum Bhaishajya Kalpana department & was tested at Govt. Drug Testing Lab, Jogindernagar, Distt. Mandi.

which each drug has to be taken 2 gm each, with 16 times of water and reduced to 1/4th in *mridu agni* in an earthen pot. Patient were advised to make *kwath* at home by classical method.

Trial Drug:- Patoladi kwath.

Sr No	Name	Part used	Quantity
1	Patola	Leaves	2gm
2	Kutki	Rhizome	2gm
3	Shatavari	Root	2gm

4	Haritaki	Pericarp	2gm
5	Bibhitaka	Pericarp	2gm
6	Amala	Pericarp	2gm
7	Giloy	Stem	2gm

Subjective criteria**Clinical assessment**

The signs and symptoms were given scoring depending upon their severity, frequency or duration.

Table showing Grading of signs and symptoms.

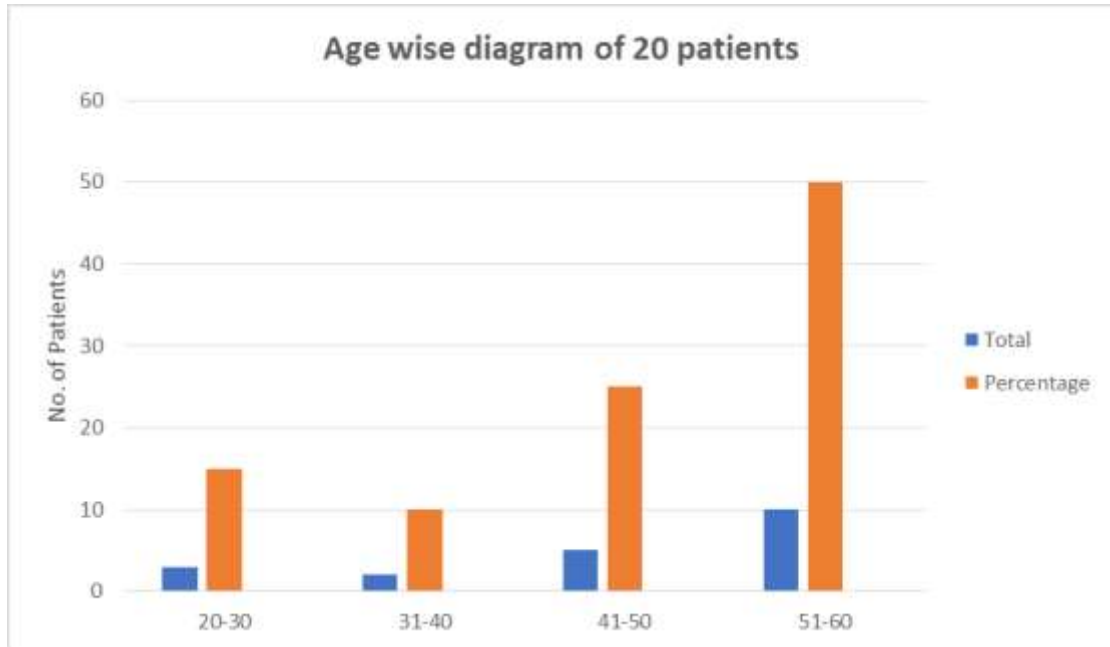
Sr. No	Signs and Symptoms	Grade
1.	Sandhi Shoola	
	Nil (No pain)	0
	Mild (Pain complained but tolerable)	1
	Moderate (Pain complained taking analgesic once a day)	2
	Severe (Pain complained Analgesic > once a day)	3
2.	Sandhi Graha	
	Nil (0-25% impairment in the range of movements of joints not affecting daily routine work)	0
	Mild (25-50% impairment in the range of movement of joints not affecting daily routine work with difficulty)	1
	Moderate (50-75% impairment in the range of movement of joints not affecting daily routine work.)	2
	Severe (More than 75% impairment in the range of movement of joints not affecting daily routine work.)	3
3.	Sandhi Shotha	
	Nil (No Swelling)	0
	Mild (Swelling complained but not apparent)	1
	Moderate (Swelling obvious on 2 joints.)	2
	Severe (Obvious swelling on > 2 joints.)	3
4.	Raga	
	Nil (No redness)	0
	Mild (Mild redness)	1
	Moderate (Moderate redness)	2
	Severe (Severe Redness)	3
5.	Twak vaivarnya	
	Nil (No discoloration of skin)	0
	Mild (Mild discoloration of skin)	1
	Moderate (Moderate Discoloration)	2
	Severe (Severe Discoloration)	3
6.	Vidaha	
	Nil (No burning sensation)	0
	Mild (Transient, no approach for its aversion)	1
	Moderate (Frequently, self approach for its aversion)	2
	Severe (Severe burning sensation)	3
7.	Status of pain on Movement of Joint	
	Nil (Minimal pain with Active Joint Movement)	0
	Mild (Moderate pain with Passive Joint Movement)	1
	Moderate (Severe pain with Lesser Joint Movement)	2
	Severe (Severe Pain with no Joint Movement)	3
8.	Sandhi Vikriti	
	Nil (No Deformity)	0
	Mild (Mild deformity of single joint)	1
	Moderate (Deformity of 2-3 joints)	2
	Severe (Formation of tophi in multiple joints)	3
9.	Interval of manifestation of symptoms	
	Nil (Occasional)	0
	Mild (Only in morning)	1
	Moderate (Only at night)	2
	Severe (Irregular with short intervals)	3

Objective Criteria

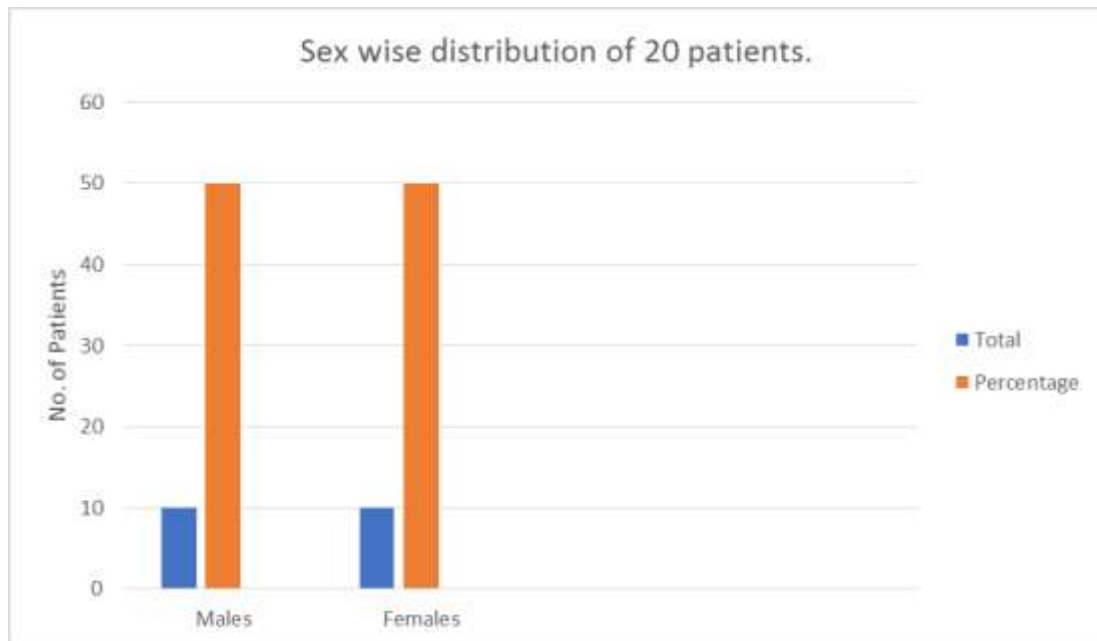
To assess the effect of therapy on objective parameter, serum uric acid level will be assessed before and after the treatment.

1. Age.**Table no. 1: Age wise distribution of 20 patients.**

Age in years	No. of Patients	%age
20-30	3	15
31-40	2	10
41-50	5	25
51-60	10	50

**2. Sex.****Table No. 2: Sex wise distribution of 20 Patients.**

Sex	No. of Patients	% age
Males	10	50
Females	10	50

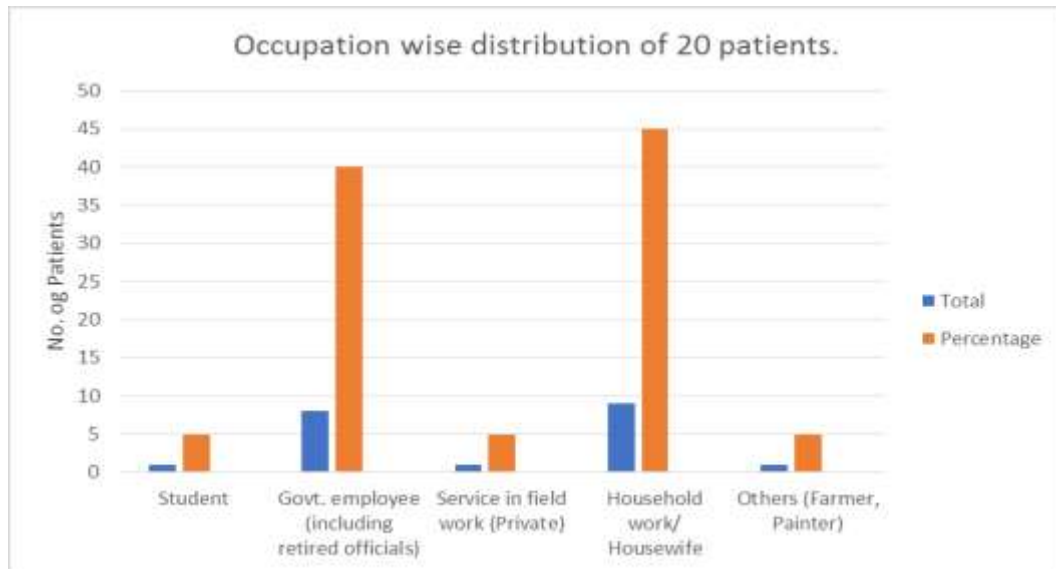


Sex wise distribution shows that 10 patients (50%) were males and 10 patients (50 %) were females.

3. Occupation

Table No. 5: Occupation wise distribution of 20 patients.

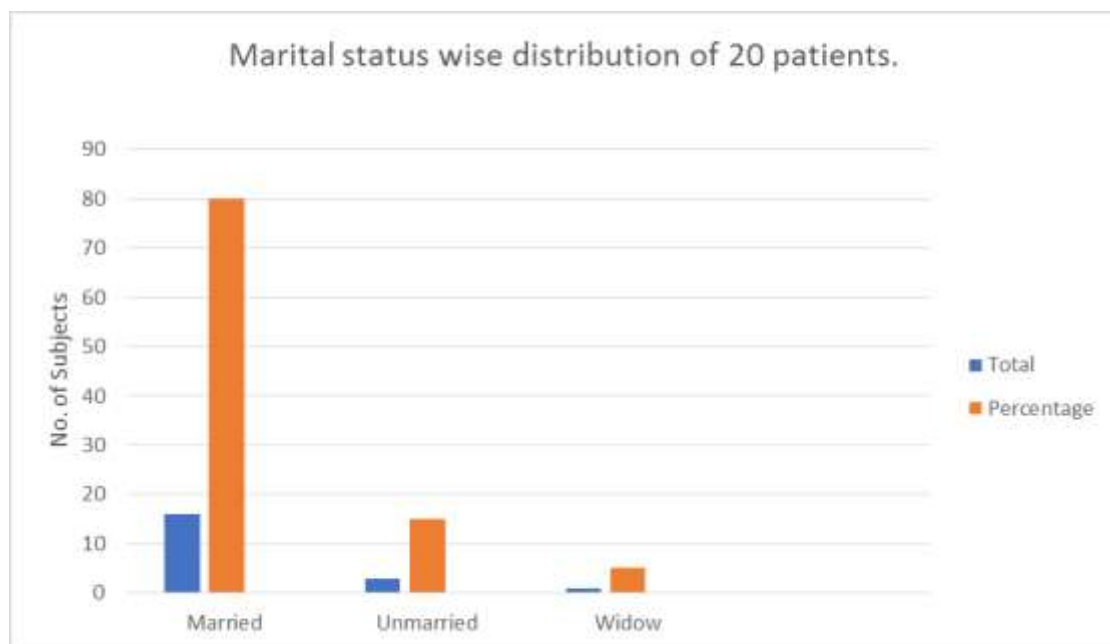
Occupation	No. of Patients	Percentage (%)
Student	1	5
Govt. employee (including retired officials)	8	40
Service in field work (Private)	1	5
House hold work/ House wife	9	45
Others (Farmer, Painter etc.)	1	5



1. Marital status

Table No. 4: Marital status wise distribution of 20 patients.

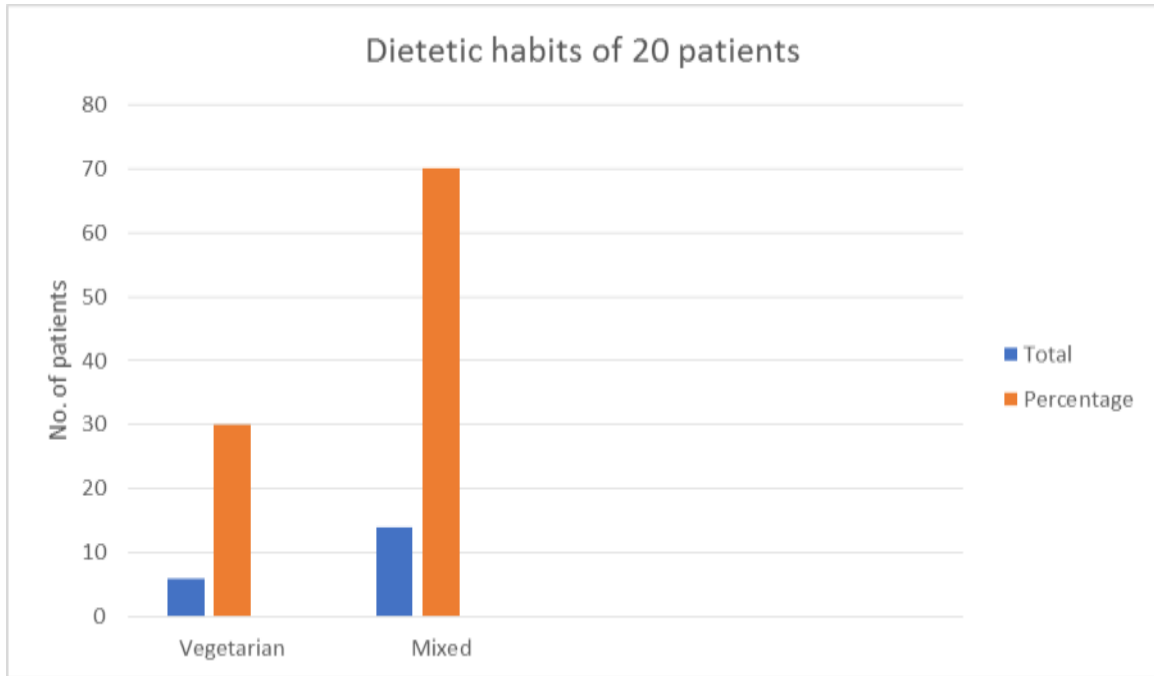
Marital status	No. of Patients	% age
Married	16	80
Unmarried	3	15
Widow	1	5



1. Dietary habits

Table No. 11: Dietetic habits of 20 patients.

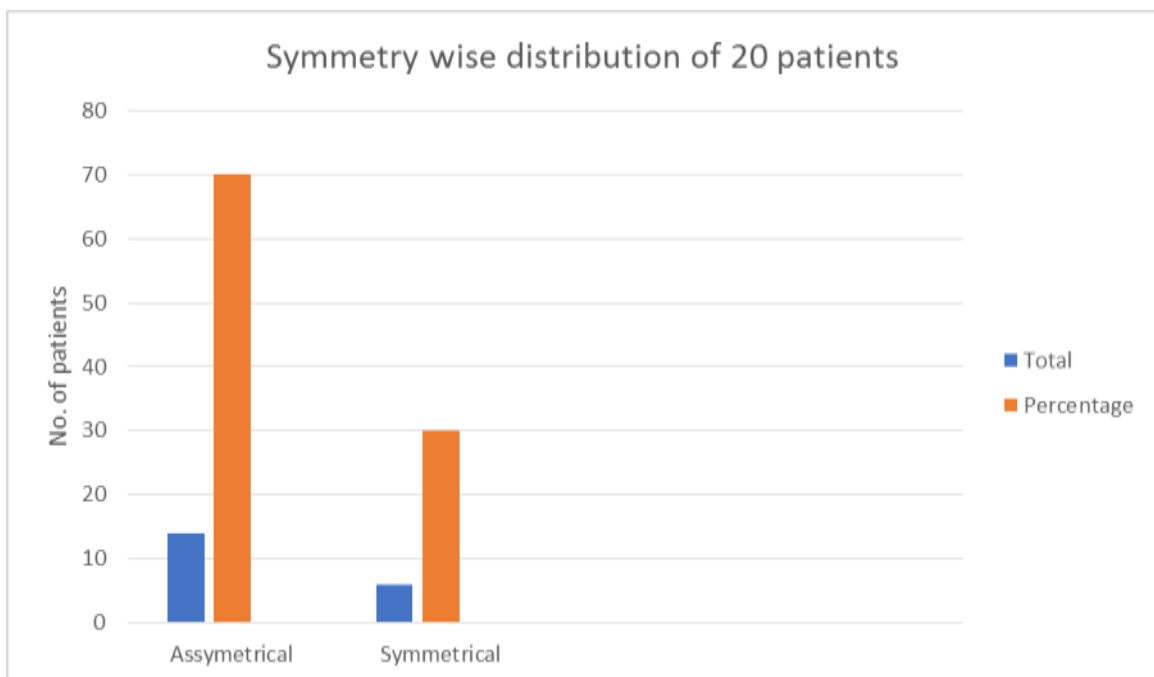
Diet	No. of patients	Percentage (%)
Vegetarian	6	30
Mixed	14	70



1. Symmetry of involved joints

Table No. 13: Symmetry wise distribution of joint involved in 20 patients.

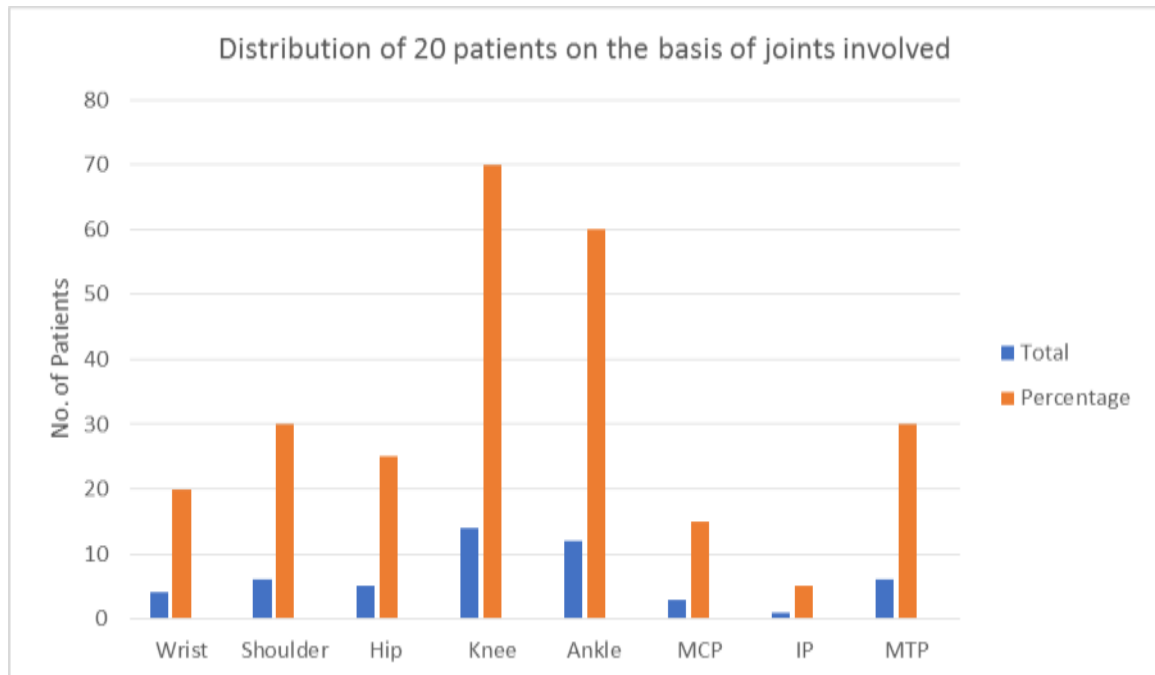
Nature of Involvement	No. of Patients	Percentage
Asymmetrical	14	70
Symmetrical	6	30



1. No. of joints involved

Table No. 15: Distribution of 20 Patients on the basis of joints involved.

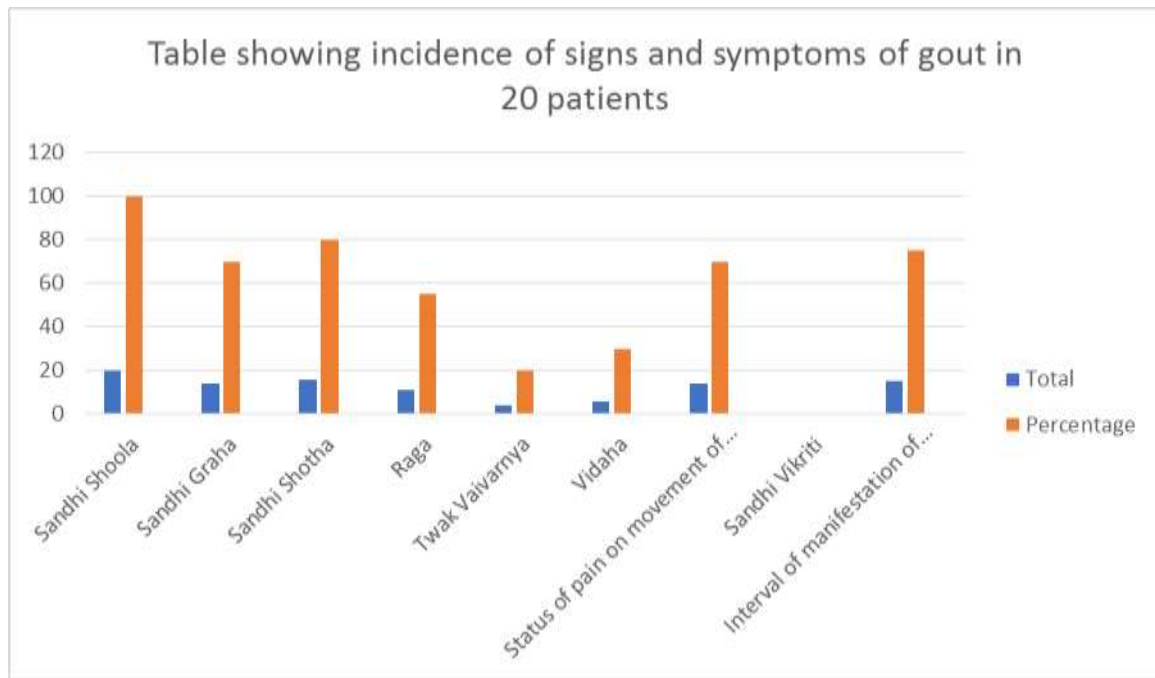
Name of joints involved	Total	Percentage
Wrist	4	20
Shoulder	6	30
Hip	5	25
Knee	14	70
Ankle	12	60
MCP	3	15
IP	1	5
MTP	6	30



1. CLINICAL FEATURES

Table No. 17: Table showing incidence of signs and symptoms of gout in 20 patients.

Signs & Symptoms	No. of Patients	Percentage
<i>Sandhi Shoola</i>	20	100
<i>Sandhi Graha</i>	14	70
<i>Sandhi Shotha</i>	16	80
<i>Raga</i>	11	55
<i>Twakvaivarnya</i>	4	20
<i>Vidaha</i>	6	30
Status of pain on Movement of Joint	14	70
<i>Sandhi Vikriti</i>	0	0
Interval of manifestation of symptoms	15	75



RESULT

Among 20 patients completely, 13 patients was cured, 1 patient was markedly improved, 1 was moderately improved, no improvement was seen in 2 patients and none of the patient was mildly improved.

Overall effect of therapy shows that 5% patients each showed markedly improved and moderately improved, 11% patients were having no improvement, and 76% patients cured completely.

Statistical Analysis

The information gathered regarding demographic data is shown in percentage, The scores of criteria of assessment were analyzed statistically in form of mean score B.T. (Before treatment), A.T. (After treatment), (B.T. – A.T.) difference of mean, S.D. (Standard Deviation), S.E. (Standard Error).

Overall percentage improvement of each patient was calculated by the following formula.

$$\frac{\text{Total BT} - \text{Total AT}}{\text{Total}} \times 100$$

Students paired 't' test was applied at $p > 0.005$, $p < 0.05$, $p < 0.01$, and $p < 0.001$, to observe significance of results obtained after treatment. The results were considered significant or insignificant depending upon the value of p.

- Extremely significant - $p < 0.0001$
- Highly significant - $p < 0.001$
- Moderately significant - $p < 0.01$
- Significant - $p < 0.05$
- Insignificant - $p > 0.05$

RESULT

Observations and results obtained was statistically analyzed with using student paired 't' test and presented in the form of thesis.

OBSERVATIONS

a) Demographic observations

• **AGE:-** The maximum number of patients i.e 50% of the patients were between 51-60 years of age, 25% in age group of 41-50 years, 15% of the patients were between age group 20-30 years, 10% were in the age group of 31-40 years. The age ranging from 30 to 60 years is known as *Madhyama Avastha* of life and in this period predominance of *Pitta dosha* is noted. *Vatarakta* is *Vata Pradhana Vyadhi*. Influence of *Pitta Dosha* might be the cause of *Vata* and *Rakta Dosha* in this age group. Its prevalence is found maximum in the fourth and fifth decade of life. Observations about age of patients are in accordance with textual references. The prevalence in third decade can be attributed to faulty *Ahar-Vihar* viz. Alcohol intake, non-vegetarian diet, excessive intake of pulses, intake sedentary lifestyle, excessive travelling, (Table No. 1)

▪ **SEX:-** In the present study, both males (50%) and females (50%) are equivalent. The prevalence of gout is more in male than females i.e. 5:1 (Male: Female). Registered female patients are housewives, more exposed to stress and strain of life, indulge in spicy food habits (*Pitta Prakopa* and *Raktadushti*). Males are more prone to *Vatarakta* (Gout) due to increase in the testosterone to estradiol ratio. As it elevates the uric acid level and decreases kidney's ability to excrete it. (Table No. 2)

- **Religion :-** 100% patients were Hindu This may be due to the Hindu dominant population in this geographical area.(Table No. 3).
- **Marital status:-** 80% of the patients were married, 15% patients were unmarried and 5% patients were widow. It may be because of the prevalence of the disease after 3rd decade of life.(Table No. 4)
- **Occupation:-** In the present study, majority of the patients registered were housewives 45% and 40% were govt. employee. Person doing field work, students and others (farmers, painter etc) were 5%. As housewives and in-service persons generally live sedentary life style. This may be precipitating factor of *Vatarakta*. (Table No. 5).
- **Education:** Maximum 35% patients were matric passed, 20% were below primary level, 20% were graduate, 15% were PG and 10% were primary. This shows that awareness of the patients about their disease and anyone can be the victim of the disease because of faulty dietary habits and sedentary life cycle. (Table No. 6).
- **Socio-Economic status:** - 95% were of middle class, 5% were of low economic class and no any patient belongs to upper class. Gout was earlier referred to as “disease of kings” or “Rich man disease” because of their purine rich diet and sedentary life style. But in present era, the disease can affect anyone because in these days, most of the persons are able to afford more purine rich diet and alcohol which is the prime factor in the causation of gout. (Table No. 7).
- **Addiction:** - 20% patients were addicted to alcohol, 10% were addicted to tea, 70% patients had no addiction. None of the registered subjects were addicted to Smoking, Tobacco chewing and Pan. Alcohol consumption is a major risk factor in Gouty Arthritis. It is rich in purines which are then increases uric acid levels in the body, resulting in gout flares. (Table No. 8).
- **Habitat:** - Majority of the patients were dwelling in rural areas i.e. 85% followed by 15% in urban areas. This may be because of the rural vicinity of our institute and easy approach of the patients to the hospital. (Table No. 9).
- **Lifestyle:-** Maximum number of patients i.e. 11 (55%) patients leading to sedentary lifestyle while 9 (45%) were involved in various physical activities. Disease may affect the people leading both the lifestyles but prevalence is noted more in persons who adopt sedentary lifestyle. (Table No. 10).
- **Dietary habits:-** 70% patients were having mixed diet and 30 % were purely vegetarian. This is in accordance with the *Ayurvedic* and Modern point of view. Consumption of non-vegetarian diet and over use

of pulses with intact outer coat, both being rich in purine content are the precipitating factors for *Vatarakta*.(Table No. 11).

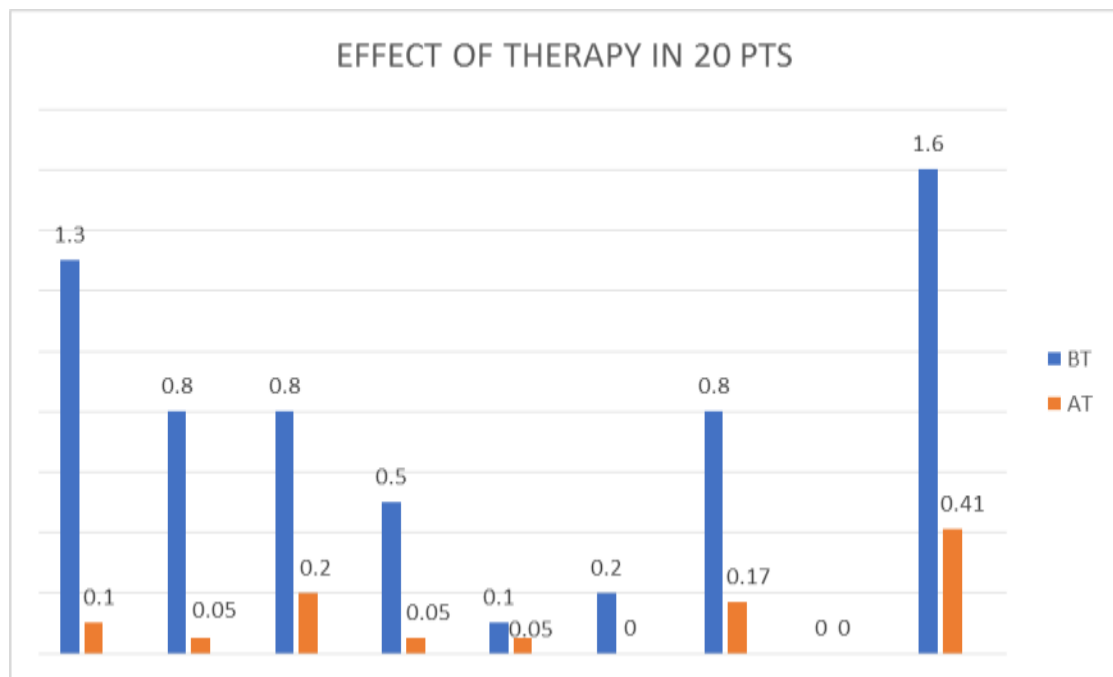
- **Family History:-** 18% did not have familial history of the disease, among the patients having the family history of *Vatarakta*, father and mother transmission was seen in 5% patients. The present study could not confirm the familial tendency of *Vatarakta*. The probable reason may be a small no. of patients. (Table No. 12).
- **Symmetry:-** Symmetry wise distribution of joint involvement of 20 patients shows that 14 patients (70%) had Asymmetrical involvement of joints and only 6 patients (30 %) reported symmetrical involvement of joints.(Table No.13) It has been mentioned in modern texts that acute gouty arthritis typically presents as mono-arthritis in 85-90% cases with first metatarsophalangeal (MTP) involvement, being the most common affected site. (Kelley's Textbook of Rheumatology, 6 edition 2001 vol. 2).
- **Duration of Illness:-** 5% patients were freshly diagnosed, 20% patients presented with 1-3 months of chronicity, 50% patients presented with 4-6 months of chronicity, 15% patients presented with 10-12 months of chronicity and 10% patients presented with 22-24 months of chronicity. (Table No. 14).
- **Involvement of Joints:** Wrist joints were involved in 20% patients, shoulder joints were involved in 30%, Hip joint involvement was seen in 25%, knee joint involvement was seen in 70%, ankle joint involvement was seen in 60%, MCP joint involvement was seen in 15%, IP joint involvement was seen in 5% and MTP joint involvement was seen in 30%. (Table No. 15). This is too in accordance with the textual clinical presentation of the disease.
- **Prakriti:-** 12 (60%) patients were of *Pitta-Kaphaja*, 2 (10%) patients were of *Kapha- Vataja*, 5 (25%) patients were of *Pitta- Vataja*, 1 (5%) patient were of *Kapha- Vataja* and none of the patients registered were *Vataja*, *Pittaja*, *Kaphaja*, *Vata-Pittaja*, *Vata- Kaphaja* and *Sannipataja*. Since *Pitta* and *Rakta* are of same *Sadharmaya Gunas*, therefore the *Nidana* which aggravates the *Pitta*, *Rakta* as well as aggravated by the same *Nidanas*. It has been mentioned that in *Vatarakta*, both *Vata Dosha* and *Rakta Dhatu* (having *Pitta Yoni*) are vitiated simultaneously. So the persons with *Vata-Pitta Deha prakriti* are more prone to this disease. (Table No. 16).

EFFECT OF THERAPY

All the patients were registered from OPD of R.G.G.P.G. Ayurvedic College and Hospital, Paprola. 20 patients were given the trial in single group. 9 criteria's of assessment were selected and their signs and symptoms were recorded in 1st and 45th day. The effect of therapy was studied on 20 patients.

Effect of therapy in 20 patients. (paired t test).

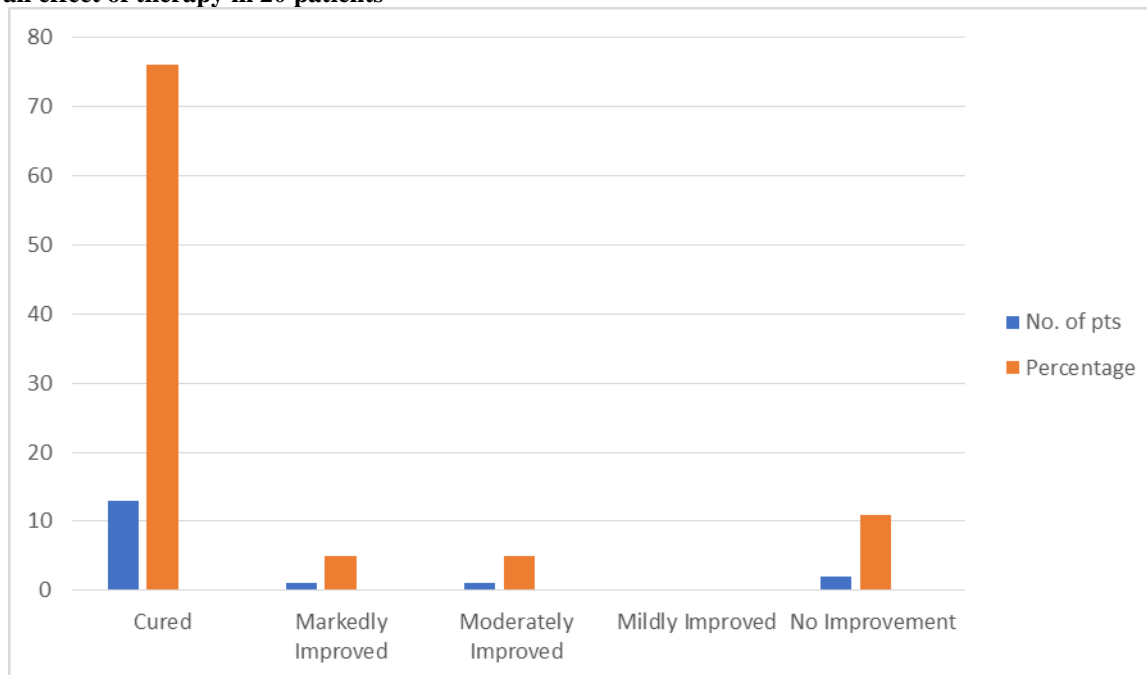
Sr. No.	Symptoms	Mean		% relief		S.D.+	S.E.+	't'	'p'
		BT	AT	Diff.	%age				
1.	Sandhi Shoola	1.35	0.17	1.17	86.95	0.80	0.19	5.99	<0.001
2.	Sandhi Graha	0.88	0.05	0.82	93.33	0.63	0.15	5.33	<0.001
3.	Sandhi Shotha	0.82	0.29	0.52	64.28	0.94	0.22	2.31	<0.001
4.	Raga	0.52	0.05	0.47	88.88	0.62	0.15	3.10	<0.001
5.	Twakvaivarnya	0.11	0.05	0.05	50.00	0.42	0.10	0.56	<0.05
6.	Vidaha	0.23	0.11	0.11	50.0	0.69	0.16	0.69	<0.001
7.	Status of pain on Movement of Joint	0.82	0.17	0.64	78.57	0.86	0.20	3.09	<0.001
8.	Sandhi Vikriti	0.0	0.00	0.0	0.00	0.00	0.00	0.00	<0.05
9.	Interval of manifestation of symptoms	1.64	0.41	1.23	75.00	1.20	0.29	4.24	<0.001

**OVERALL EFFECT OF THERAPY (SUBJECTIVE CRITERIA)**

Overall effect of therapy in 20 patients.

Total effect	No. of pts.	%age
Cured (100% relief)	13	76%
Markedly Improved (76-99% relief)	1	5%
Moderately Improved (51-75% relief)	1	5%
Mildly Improved (25-50% relief)	0	0
No Improvement (< 25% relief)	2	11%

Overall effect of therapy in 20 patients



Among 20 patients completely, 13 patients (76%) was cured, 1 patient (5%) was markedly improved, 1 patient (5%) was moderately improved, no improvement was seen in 2 patients (11%) and none of the patient was mildly improved.

Overall effect of therapy shows that 1 patient (5%) showed markedly improved and 1 patient (5%) showed moderately improved, 2 patients (11%) were having no improvement, and 13 patients (76%) cured completely.

EFFECT OF THERAPY ON THE BASIS OF OBJECTIVE CRITERIA

Effect of therapy on Serum Uric Acid.

S.No	N	Serum uric acid Mean level		%age of Reduction	S.D.+	S.E.+	t	P
		BT	AT					
1.	17	8.0	6.64	16.98	1.66	0.40	3.37	<0.001

EFFECT OF THERAPY OF BLOOD EXAMINATION

Overall data shows that the values of blood investigations before and after treatment was remained within normal physiological range.

DISCUSSION

- Sandhi Shoola:** All the patients (100%) included under clinical trial presented with *Sandhi Shoola*. 86.95% relief was found. Result was statistically highly significant. ($p < 0.001$).
- Sandhi Graha:** This symptom was observed in 70% of patients and 93.33% relief was observed. Result was statistically highly significant. ($p < 0.001$).
- Sandhi Shotha:** 80% patients presented with the symptom of *Sandhi Shotha*. In this symptom 64.28% relief was observed. Result was statistically highly significant. ($p < 0.001$).
- Raga:** This symptom was found in 55% of patients. 86.95% relief was found. Result was statistically highly significant. ($p < 0.001$).
- Twak vaivarnya:** 20% patients presented with the symptom of *Twak Vaivarnya*. In this symptom 50%

relief was observed. Result was statistically significant. ($p < 0.05$).

- Vidaha:** About 30% patients was presented with the symptom of *Vidaha*. In this symptom 50% relief was observed. Result was statistically highly significant ($p < 0.001$).
- Status of pain on Movement of Joint:** 70% patients presented with the symptom of Status of pain on Movement of Joint. In this symptom 78.57% relief was observed. Result was statistically highly significant ($p < 0.001$).
- Sandhi Vikriti:** *Sandhi Vikriti* was not seen in any of the registered patients.
- Interval of manifestation of symptoms:** About 75% patients was presented with the Interval of manifestation of symptoms. In this symptom 75% relief was observed. Result was statistically highly significant ($p < 0.001$).

PROBABLE MODE OF ACTION OF TRIAL DRUGS

A drug's (*Dravya's*) characteristics (*Guna*), which exist in it in a condition of co-inherence, cause specific actions

(*Karmas*) to be carried out in the body. The underlying principle of *Samanya* and *Vishesha's* concepts is the uniformity of the drug's protoelements and the protoelemental components of the body. The aforementioned ideas suggest that the dominant proto-elements of the drugs will help increase comparable proto-elements in the body while the dissimilar will decrease the proto-elements. The certain specific properties of drugs which cannot be explained on these principles are called '*Prabhava*'.

The *Doshik Chikitsa* serves as an umbrella for the treatment of Ayurveda principles. These medications work together as an antagonist to the two primary morbid components, *Dosha* and *Dushya*, to cause *Samprapti Vighatana*, which lessens the severity of the disease's symptoms.

Vataprakopaknidansevan causes aggravation of vata dosha

- Raktaprakopakas well as pitta prakopaknidan sevancases raktadushti(derangement)
- Santarpakahara vihara causes accumulation kaphaand medodhatu.

The aboveraktaor kapha and medas (by it picchilatva anduplepaguna) cause obstruction in the pathway of vatadosha which further vitiates it.

This vitiates vata takes ashraya in asthi and sandhi at the place of khavaigunya causing Vatarakta.

If located in twakaand mansa, termed as Uttana Vatarakta.

If located in dhatus, termed as Gambhira Vatarakta.

If sign & symptoms of both are present, termed as Ubhayashrita Vatarakta.

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Vata Prakopaka Nidana Sevana causes aggravation of *Vata Dosha*. *Rakta Prakopaka* as well as *Pitta Parakopaka Nidana Sevana* causes *Rakta Dushti* (derrangement). *Santarpaka Ahara Vihara* causes accumulation of *Kapha* and *Medo Dhatu*.

The above *Rakta* or *Kapha* and *Medas* (by it *Picchilatva* and *Uplepa Guna*) causes obstruction in the pathway of *Vata Dosha* which further vitiates it. This vitiates *Vata* takes *Ashraya* in *Asthi* and *Sandhi* at the place of *Khavaigunya* causing *Vatarakta*.

If it located in *Dhatus*, termed as *Gambhira Vatarakta*.

If located in *Twaka* and *Mansa*, termed as *Uttana Vatarakta*.

If signs and symptoms, both are present, termed as *Ubhayashrita Vatarakta*.

Table No. 1: Pharmacological actions of Patoladi kwath.

S.No	Drug	Latin Name	Rasa	Guna	Virya	Vipak	Karma	Part used
1	Patola	Trichosanthes Dioica Roxb.	Tikta	Laghu, Ruksha	Ushna	Katu	Tridosha Shamaka, Raktashodhaka	Leaves
2	Kutki	Picorhizza Kurroa Royleex Benth	Tikta	Ruksha, Laghu	Sheeta	Katu	Kapha-pitta hara, Pitta virechan	Roots
3	Shatavari	Asparagus racemosus Willd	Madhur, Tikta	Guru, Snigdha	Sheeta	Madhur	Vata-pitta shamaka, Mutral, Vednasthapaka	Tuber
4	Haritaki	Terminalia chebula Linn.	Panchras (lavanvarjit)	Laghu, Ruksha	Ushna	Madhur	Tridosha Shamaka, Shothahara	Fruit
5	Bibhitaka	Terminalia bellirica Roxb.	Kashaya	Ruksha, Laghu	Ushna	Madhur	Tridosha shamaka, Chedana	Fruit
6	Amala	Emblica officinalis Gaer tn.	Pancharas (lavanvarjit)	Guru, Ruksha, Sheet	Sheeta	Madhur	Tridosha shamaka, Rasayana	Fruit
7	Giloy	Tinospora cordifolia Willd	Tikta, Kashaya	Guru, Snigdha	Ushna		Tridosha shamaka, Dahashamana	Stem

Table No. 2: Dominant *Raspanchaka* in *Patoladi Kwath*.

S.No.	Patoladi kwath	
1.	Rasa	Tikta, Madhura and Kashaya Rasa
2.	Guna	Laghu, Snigdha, Ruksha and Guru
3.	Virya	Ushna
4.	Vipaka	Madhur
5.	Dosha Karma	Tridosha Shamaka

A. MODE OF ACTION OF DRUGS ON THE BASIS OF RASA

Tikta and *Kashaya Rasa* are present almost in all the main ingredients of trial drugs. In *Tikta Rasa* there is predominancy of *Vata* and *Akaash Mahabhoot*. As *Agnimandyata* is one of the causative factor for *Vatarakta*. So *Tikta* rasa help in *Jathragnideepana*. *Tikta Rasa* other properties like *Lekhana*, *Shoshana* help in clearance of *Srotas Avarodha* which is due to *Amadosha* and *Kashaya Rasa* having properties of *Samshaman*, *Samgrahi*, *Sandhanakara*, *Shleshma Rakta Pitaa-Prasahaman* and *Ropan*.

ON THE BASIS OF GUNA

Due to *Laghu* and *Ruksha Guna* of maximum ingredients they help in clearance of *Srotas-Avarodha*.

ON THE BASIS OF VEERYA

Due to the fact that the majority of experimental medicine ingredients contain *Ushna Veerya*, they aid in *Vata Dosha* pacification via the *Hetu Vipreet Chikitsa* concept. As a result, patients experienced alleviation from symptoms caused by vitiated *Vata Doshas* such as *Sandhi Shoola* and *Toda*. Additionally, *Tikta Rasa* and *Sheeta Veerya* medications aid in calming *Pitta Dosha* so that patients have relief in *Daha*.

ON THE BASIS OF DOSHA KARMA

Almost all the ingredients of trial drug have *Tridosha Shamaka* property. All the *Dosha* are involved in *Samprapti* of this disease. The pharmacological action on these drugs pacify the *Dosha*.

- *Tikta*, *Madhura* and *Kashaya Rasa* contains mainly *Sheeta Gunas* (Ch Su 26).
- *Sheeta Guna* inhibits the *Ushna Guna* of *Pitta Dosha*.
- *Patola Patra* is *Pitta Shamaka* and have *Haemagglutinating*, *antibacterial*, *hypoglycemic* properties.
- *Kutki* is *Lekhaniya* and *Bhedaniya* which eliminates *doshas* from the body, has *Shohta*, *Daha*, *Kustha Nashaka* and possess the *antiinflammatory* properties and are useful in burning sensation.
- *Shatavari* is *Balya* and *Vata Pitta Rakta Janya Shophana Nashaka*, have *diuretic* or *Mutra Virechana* property and causes *immunomodulation*. These drugs help in excretion of excess *uric acid* present in blood.
- *Haritaki* is *Vata Rakta Nashaka* and have *anti-inflammatory* and *diuretic* properties.

- *Bibhitaka* cures *Dhatugata dosha* and has *analgesic* effect, *anti-inflammatory*, *diuretic* and *rejuvenating* properties.
- *Amalaki* is a *Rasayana*, *Pitta-Shamaka*, *uricosuric* due to presence of *Vit C* and have *immunomodulatory*, *hypoglycemic*, *anti-inflammatory* properties.
- *Guduchi* is the best drug to cure *Vatarakta*, it is *Tridhosha-Shamaka*, it contains *Tinosporin* which has *antiuremic* action resembling with that of *NSAIDs*. have *anti-inflammatory* and *diuretic* properties.

CONCLUSION

Any study would not be effective in achieving its goals without reaching some sort of conclusion, and any conceptual or clinically oriented investigation that is the subject of a scientific discussion will undoubtedly result in some conclusions. Considering some of the reasoning, example database idea, and the results that were attained in this particular study were covered in the pages before, the following conclusion can be drawn:

Life style disorders are different from other diseases because they are potentially preventable and can be lowered by adopting healthy dietary habits and life style so as in case of *Vatarakta*, *Hetus* are the causative factors for particular disease. Different types of *Hetus* for different diseases have been mentioned by *Acharyas*. They are included in *Nidana Panchaka*. By avoiding causative factors responsible for the *Vatarakta* and adopting the *Pathya-Apathya* mentioned by the *Ayurveda Acharyas*, one may get rid of *Vatarakta* and can lead a healthy life.

Improper and unhealthy lifestyle is the main causative factor for *Vatarakta*. In *Ayurveda*, lifestyle means all the things that produce effect over *Shareera* (body), *Indriya* (sense organs), *Satwa* (mind) and *Atma* (soul). The way of thinking, eating, living, indulging in different activities etc. are the most important part of lifestyle because these have greater impact on a person. *Hetu* is the foremost among *Nidana Panchaka* and thus understanding of different types of *Hetu* is necessary as *Nidana Parivarjana* i.e. avoidance of causative factors is one of the principal treatment of any *Vyadhi*.

The trial drug used in this study was "*Patoladi Kwath*" are having such active principles which acts on *Vatadushti*, *Raktadushti*, *Kapha* accumulation and *Sammurchana* of *Vata* and *Rakta*. According to *Doshakarmata* this drug act as *Tridhosha-shamak*. Drugs

like *Guduchi*, *Bibhitaka*, *Haritaki* and *Shatavari* have *Mutravirechana* property. Due to *Mutravirechana* property this drug also helps in excretion of excess uric acid present in blood.

Due to its *Mutral*, *Vednasthapaka*, *Rasayana*, and *Dahaprashamana* qualities, *Patoladi kwath* functions as a *Rakta Shodhaka* and *Pitta Shamaka* in *Vatarakta* by relieving the obstruction of *Vata* caused by *Dushita Rakta*, *Kapha*, and *Medas* and by reducing the severity of signs and symptoms in patients.

The result showed statistically highly significant (<0.001) results both on subjective and objective parameters. No adverse effect of the therapy was noted during the trial period.

Overall effect of therapy shows that 13 patients (76%) cured completely and 1 patient (5%) showed markedly improved and 1 patient (5%) showed moderately improved, 2 patients (11%) were having no improvement.

The clinical trial medications are easily available, feasible, and reasonably priced. The medications have no negative effects and can be taken for a very long period.

On the basis of this study, it can be concluded that trial drug, '*Patoladi kwath*' is very effective in the management of *Vatarakta* (Gouty Arthritis). No side effects of the drugs were noted during the trial and follow up period.

The proper interpretation of concepts has been done while keeping in mind all the warnings against bias in research. The author would feel that his/her efforts had not been in vain if this study provided future research workers with some guidelines.

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