AYUSHDHARA

ISSN: 2393-9583 (P)/ 2393-9591 (O)

An International Journal of Research in AYUSH and Allied Systems

Research Article

THE EFFICACY OF *AMRUTA GUGGULU* (INTERNAL) AND *MADHUYASHTYADI TAILA* (EXTERNAL) IN THE MANAGEMENT OF *VATARAKTA* W.S.R. TO GOUTY ARTHRITIS

Jyothi Rapolu[1]*, K. Laxmikantham[2], P.Srikanth Babu[3]

*[1]Assistant Professor, Dept of Kayachikitsa, A. L. Govt. Ayurvedic College, Warangal.

[2]Professor, [3]Professor and HOD, Dept. of Kayachikitsa, Dr. BRKR Govt. Ayurvedic College, Hyderabad, Telangana.

Article info

Article History:

Received: 28-02-2024

Accepted: 18-03-2024

Published: 07-05-2024

KEYWORDS:

Amruta Guggulu, Madhuyashtyadi Taila, Vatarakta, Gouty Arthritis.

ABSTRACT

Ayurveda is the only medical science which has focused more on prevention of diseases and maintenance of health. The system advocates for a balance between lifestyle, diet, upright attitude. In the modern context of life, people and their dietary habits, lifestyle, social structure and environment have undergone a remarkable change leading to many avoidable diseases. *Vatarakta* is one among those diseases. The name *Vatarakta* indicates the unique pathology of morbid *Vata dosha* and *Rakta dhatu*. Based on aetiolgy, pathogenesis, signs and symptoms *Vatarakta* can be compared with Gouty Arthritis of contemporary medicine. It is a painful metabolic disorder caused due to hyperuricemia, which in turn is caused by genetic factors, dietary factors which are rich in purine, alcohol consumption, drugs, smoking and lack of physical activity. In moderns medicine Gouty Arthritis is treated by NSAIDS, steroids, uricosuric agents, allopurinol, febuxostat etc. But in due course all these drugs can lead to adverse effects when used for long duration. This causes additional trouble to the patients. Keeping this in view, there is a need for simple, safe and effective treatment. Hence this study has been initiated to evaluate the clinical efficacy of *Amruta guggulu* (internal) and *Madhuyashtyadi taila* (external) in the management of *Vatarakta* w.s.r to Gouty Arthritis.

INTRODUCTION

Vatarakta is a chronic progressive metabolic disorder of the musculoskeletal system and cripples the day to day activities of humans. It is adequately described in Ayurveda as a special entity. The first and detailed description of *Vatarakta* is found in *Charaka chikitsa sthana* 29th chapter. Morbid *Vata dosha* and *Rakta dhatu* are the important factors in etiopathogenesis of the disease. Diet, lifestyle modalities play a major role in causing *Vatarakta*. The vitiated *Vata* and *Rakta* move all over the body and become localized where there is *Kha-vaigunya. Rakta maargavarana* is the principal pathology involved. *Sthana samsraya* occurs at *Hastamula gata* or *Padamula gata sandhi* where the disease gets manifested in the form of *Purvarupas* like *Atisweda* or *Asweda, Twak vaivarnya, Sparshagnata, Karshnyata, Kshate ati ruk* of the affected joint. Depending upon the site of pathogenesis and *Dhatus* involved, *Vatarakta* is classified into 2 types – *Utthana* and *Gambheera*. *Utthana Vatarakta* involves *Twak* and *Mamsa dhatu* where as *Gambheera Vatarakta* involves remaining *Medo, Asthi, Majja, Sukra dhatus*. If both superficial and deeper *Dhatus* are involved then it is called as *Ubhayashritha Vatarakta*. Depending upon the *Dosha* predominance, *Vatarakta* is further classified into *Vatadhika Vatarakta, Pittadhika Vatarakta, Kaphadhika Vatarakta* and *Raktadhika Vatarakta*. Specific symptoms of *Vatarakta* are *Shola, Daha, Raaga, Stabdata, Bheda, Gourava, Shyava twak in Sandhi sthana.* If not treated in early stages it leads to *Kanjatwa, Pangutwa* and *Sandhi vakreekarana*. Depending upon *Dosha bala* and *Sthana vishesha*, various treatment modalities which alleviate vitiated factors and that clears the *Raktamargavarana* should be adopted apart from *Nidana parivarjana*.

Access this article online

Quick Response Code

https://doi.org/10.47070/ayushdhara.v11i2.1534

Depending on aetiopathogenesis, signs and symptoms *Vatarakta* can be compared with Gouty Arthritis of contemporary medicine. It is the most common crystal-related arthropathy. Gouty arthritis is a clinical syndrome caused by an inflammatory response to Monosodium Urate Monohydrate (MSUM) crystals with hyperuricemia. Hyperuricemia can result from excessive urate production, impaired renal uric acid excretion or a combination of the two mechanisms. Diet and lifestyle by altering the purine metabolism play a crucial role in developing the disease. The urate crystals when precipitate on the articular cartilage of joints, on tendons and in the surrounding tissues, triggers the immune response in synovial fluid of the joint leading to severe arthritis. Abrupt initial onset involving most commonly big toe, ankle or other joints of the foot is the characteristic feature of gout. Upper limbs are affected in chronic tophaceous or recurrent acute gout, especially the distal interphalangeal joint. Management of gout involves correcting factors contributing to hyperuricemia and using a urate lowering drug regularly and permanently. In the present clinical study, excluding dropouts, a total of 30 patients are taken into the consideration. Patients with classical signs and symptoms of *Vatarkta* and who fulfilled the ACR criteria (American College of Rheumatology) for diagnosis of gouty arthritis are taken into consideration for study.

Selection Criteria

Selection of Patient

30 patients suffering from *Vatarakta* are selected from OPD and IPD of Post Graduate Department of Kayachikitsa, Dr. BRKR Govt. Ayurvedic College and Hospital, Hyderabad. Among these 30 patients, who fulfilled the below mentioned criteria of inclusion were taken for the study. The detailed profile of selected patients is prepared as per the designed study pro forma which incorporates relevant data like symptomology, physical signs, investigation reports, as well as assessment criteria.

Inclusive Criteria

- Patients with classical signs and symptoms of *Vatarakta*.
- Patients of either gender will be selected for the study.
- Age group above 18 years and below 60 years will be selected.
- Both acute and chronic cases will be included.
- Patients who fulfilled the revised criteria for gouty arthritis fixed by the American College of Rheumatology.

Exclusive Criteria

- Patients of *Vatarakta* associated with any systemic disorder which interfere with study are excluded.
- Patients of age group below 18 years and above 60 years.
- Patients associated with any severe arthritic conditions such as septic arthritis, rheumatoid arthritis are excluded.
- Pregnant and lactating women are also excluded from the study.

Diagnostic Criteria

A definite diagnosis of gout is best established by aspiration and demonstration of uric acid crystals from synovial fluid or tophus. But when the crystal examination is negative or not possible, two different criteria have been proposed for the presumptive diagnosis.

1. A triad of acute mono arthritis, hyperuricemia and dramatic response to colchicine is highly diagnostic in the absence of demonstrating the crystals.
2. Alternatively the American College of Rheumatology also proposed diagnostic criteria acute gout.

ACR Criteria for diagnosis of acute Gouty Arthritis

The presence of urate crystals in the synovial fluid or tophus proved by chemical means or polarized light microscopy or presence of 6 of the following 12 clinical, laboratory and radiographic phenomenon.

1. More than one attack of acute arthritis
2. Maximum inflammation developed within one day
3. Attack of monoarticular arthritis
4. Joint redness observed
5. Painful or swollen first metatarsophalangeal joint
6. Unilateral attack involving first metatarso-phalyngeal joint.
7. Unilateral attack involving tarsal joint
8. Suspected tophus
9. Hyperuricemia
10. Asymptomatic swelling within joint (radiograph)
11. Subcortical cyst without erosion (radiograph)
12. Negative culture of joint fluid for microorganisms during attack of joint inflammation.

By means of above mentioned two tools, diagnosis of gouty arthritis was made.

Investigations

- Routine: CBP, CUE, RBS, RA factor, CRP, serum calcium
- Specific: ESR, serum uric acid, X-ray of the affected joint

Methodology

The present study is a clinical study on *Vatarakta* which is carefully designed with required parameters.

Study design: Random open clinical trial.

Sampling: Randomized sampling technique is adopted in selecting the subjects. Here, age, gender, occupation, habits, addictions were considered.

Sample size: 30

Drug Interventions

1	Drug	*Amruta guggulu*	*Madhuyashtyadi taila*
2	Dosage	1gm tid after food	External application, twice a day on affected joint
3	Form	Tablet	*Taila*
4	Root of administration	Oral	External application
5	*Anupana*	Water	None
6	Review	Once in 15 days	

Amrutha Guggulu

Method of preparation: *Guduchi* (750gm), *Guggulu* (375gm), *Harithaki* (375gm), *Vibhithaki* (375gm) and *Amalaki* (375gm) are taken and made into small pieces, boil them in 13 litres of water until it is reduced to 1/4th. Filter it and further boil until it becomes semi-solid. Then add powders of 23gm each of *Danthi, Vyosha, Vidanga, Guduchi* and pulp of *Triphala* along with 12gm of *Trivrit*.

Madhuyashtyadi Taila

Method of preparation: 5kg of *Madhuyashti*, boiled in 12 litres of water and its decoction reduced to 1/4th of the quantity along with 3.5kg of *Tila taila*, equal amount of milk, paste of 48gm of each *Stira, Tamalaki, Durva, Payasya, Abhiru, Chandana, Agaru, Hamsapadi, Mamsi, Madhuparni, Ashwagandha, Satapushpa, Rddhi, Padmaka, Jivanthi, Twak, Patra, Balaka, Paundarika, Manjishta, Sariva, Aindri* and *Vitunnaka*, and medicated oil cooked.

Treatment Period

Pre - assessment - 0 day
First assessment - 15th day
Second assessment - 30th day
Third assessment - 45th day
Fourth assessment - 60th day
Follow up - after one month
Total duration of treatment: 90 days

Assessment Criteria

After therapeutic intervention, the changes in the state of the disease *Vatarakta* are determined by adopting standard gradings for subjective, objective and special investigation criteria.

Objective Parameters

1. Serum Uric Acid

Males		**Females**	
Up to 7mg/dl	0	Up to 6mg/dl	0
7.1 – 8.5 mg/dl	1	6.1 – 7.5 mg/dl	1
8.6 - 10 mg/dl	2	7.6 - 9 mg/dl	2
> 10 mg/dl	3	> 9 mg/dl	3

Subjective Parameters

1. ***Sandhi shula*** **(pain in affected joint)**
   No pain - 0
   Mild - 1
   Moderate - 2
   Severe - 3
2. ***Sandhi daha*** **(burning sensation)**
   Normal - 0
   Mild - 1
   Moderate - 2
   Severe – 3
3. ***Sandhi shotha*** **(swelling of affected joint)**
   Absent - 0
   Mild - 1
   Moderate - 2
   Severe - 3
4. ***Sandhi stabdata*** **(stiffness of joint)**
   Normal movement - 0
   Mild restricted - 1
   Moderately restricted - 2
   Can't move - 3
5. ***Sandhi raaga*** **(erythema of the affected joint)**
   Normal - 0
   Mild - 1
   Moderate - 2
   Severe - 3
6. **No. of joints involved**
   1 – 2 - **0**
   3 – 4 - **1**
   > 4 - **3**

2. ESR

0 - 20 mm/hr	0
21 - 35 mm/hr	1
36 - 50 mm/hr	2
> 50 mm/hr	3

Criteria for Statistical Assessment

Subjective Parameters

Average was determined by using Mean and Standard deviation. Pre and post trial data was compared using Wilcoxon signed rank test.

Objective Parameters

Average was determined by using Mean and Standard deviation. Pre and post trial data was compared using Paired t test.

Criteria for Assessment of Results

The total effect of therapy was assessed on subjective and objective parameters as follows:

Marked relief - 76% to 100%

Moderate relief - 51% to 75%

Mild relief - 26% to 50%

No relief - 0 to 25%

Relief in percentages calculated for both subjective and objective parameters and the average as the final result.

OBSERVATIONS

A total of 30 patients who are fulfilling the inclusion criteria are selected irrespective of age, sex, religion and caste.

The selected patients are assessed before and after the treatment basing on subjective and objective parameters giving a specific grading scale for each parameter as mentioned in materials and methods.

The observation and results along with statistical analysis of the patients are mentioned in the following headings:

- Demographic data
- Data related to *Vatarakta*
- Data in relation to response of treatment

Demographic Data

Table 1: Showing distribution of 30 patients according to different age group

S.no	Age groups	No. Of patients	%
1	20 - 30	2	6.7
2	31 - 40	9	30
3	41 - 50	3	10
4	51 - 60	10	33.3
5	61 - 70	6	20
	Total	30	100

Table 2: Showing distribution of patients according to Gender

S.no	Gender	No. of patients	%
1	Male	24	80
2	Female	6	20
	Total	30	100

Table 3: Showing distribution of patients according to occupation

S.no	Occupation	No. of patients	%
1	Teacher	7	23.3
2	House wife	6	20
3	Engineer	8	26.6
4	Business	4	13.3
5	Employee	2	6.6
6	labour	2	6.6
7	Student	1	3.3
	Total	30	100

Table 4: Showing distribution of patients according to Religion

S. no	Religion	No. of patients	%
1	Hindu	24	80
2	Muslim	4	13.3
3	Christian	2	6.6
	Total	30	100

Table 5: Showing distribution of patients according to socio economic status

S. no	Status	No. of patients	%
1	Rich	8	26.6
2	Middle class	20	66.6
3	Poor	2	6.6
	Total	30	100

Table 6: Showing distribution of patients according to dietary habits

S.no	Diet	No. of patients	%
1	Mixed	25	83.3
2	Vegetarian	5	16.6
	Total	30	100

Table 7: Showing distribution of patients according to alcohol consumption

S.no	Alcohol consumption	No. of patients	%
1	Alcoholic	17	56.6
2	Non-Alcoholic	13	43.3
	Total	30	100

Data Related to *Vatarakta*

Table 8: Showing incidence of *Prakrithi*

S.no	*Prakrithi*	No. of patients	%
1	VP	14	46.6
2	PK	6	20
3	VK	10	33.3
	Total	30	100

Subjective Parameters

Table 9: Showing distribution of patients according to chronicity of illness

S.no	Chronicity	No. of patients	%
1	0 – 6 months	4	13.3
2	7 – 12 months	10	33.3
3	13 – 24 months	8	26.6
4	25 – 36 months	5	16.6
5	>3 years	3	10
	Total	30	100

Table 10: Showing distribution of patients according to incidence of clinical features *Sandhi shoola*

S. no	*Sandhi shoola*	No. of patients	%
1	Normal	0	0
2	Mild	0	0
3	Moderate	5	16.6
4	Severe	25	83.3
	Total	30	100

Table 11: Showing incidence of *Sandhi daha*

S. no	*Sandhi daha*	No. of patients	%
1	Normal	8	26.6
2	Mild	7	23.3
3	Moderate	10	33.3
4	Severe	5	16.6
	Total	30	100

Table 12: Showing incidence of *Sandhi shotha*

S. no	*Sandhi shotha*	No. of patients	%
1	Normal	4	13.3
2	Mild	7	23.3
3	Moderate	14	46.6
4	Severe	5	16.6
	Total	30	100

Table 13: Showing incidence of *Sandhi raaga*

S. no	*Sandhi raaga*	No. of patients	%
1	Normal	14	46.6
2	Mild	5	16.6
3	Moderate	9	30
4	Severe	2	6.6
	Total	30	100

Table 14: Showing incidence of *Sandhi stabdata*

S.no	*Sandhi stabdata*	No. of patients	%
1	Normal	2	6.6
2	Mild	6	20
3	Moderate	17	56.6
4	Severe	5	16.6
	Total	30	100

Table 15: Showing distribution of no. of joints involved

S. no	No. of joints	No. of patients	%
1	1 - 2	6	20
2	3 - 4	8	26.6
3	More than 4	16	53.3
	Total	30	100

Table 16: Showing incidence of clinical features (subjective parameters)

S. no	Clinical features	No. of patients	%
1	*S. shoola*	30	100
2	*S. daha*	23	76.6
3	*S. shotha*	26	86.6
4	*S. raaga*	16	53.3
5	*S. stabdata*	28	93.3

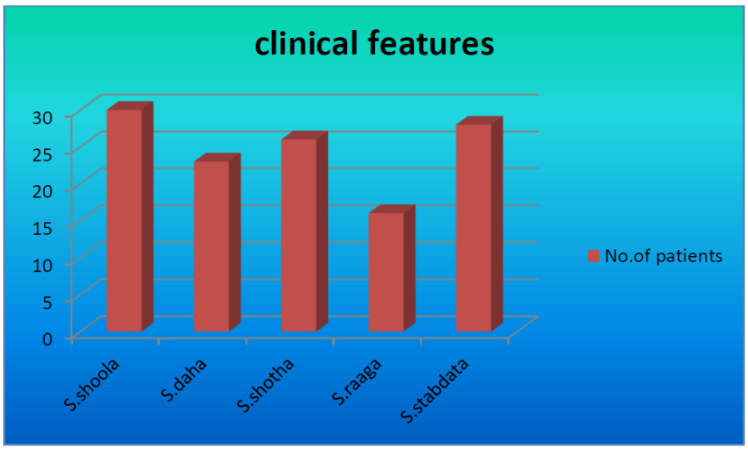


Table 17: Showing Incidence of ESR levels

S. no	ESR levels	No. of patients	%
1	0 – 20 mm/hr	5	16.6
2	21 – 35 mm/hr	19	63.3
3	36 – 50 mm/hr	5	16.6
4	>50 mm/hr	1	3.3
	Total	30	100

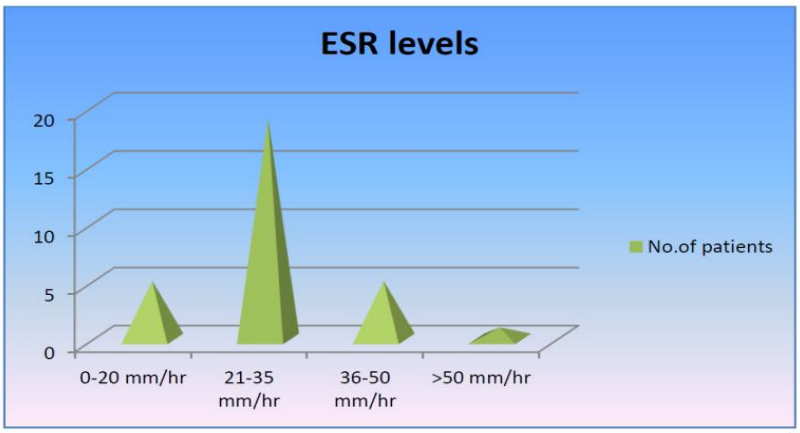
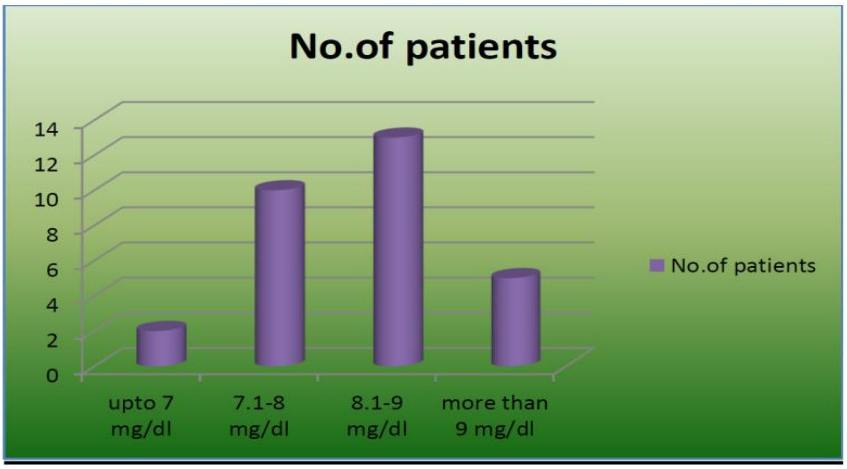


Table 18: Showing incidence of serum uric acid levels

S. no	Serum uric acid	No. of patients	%
1	Upto 7 mg/dl	2	6.6
2	7.1 to 8 mg/dl	10	33.3
3	8.1 to 9 mg/dl	13	43.3
4	More than 9 mg/dl	5	16.6
	Total	30	100



RESULTS WISE OBSERVATIONS

Subjective parameters

Table 19: Showing the results of *Sandhi shoola*

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	0	0	4	13
Grade 1	0	0	22	73
Grade 2	5	17	4	13
Grade 3	25	83	0	0

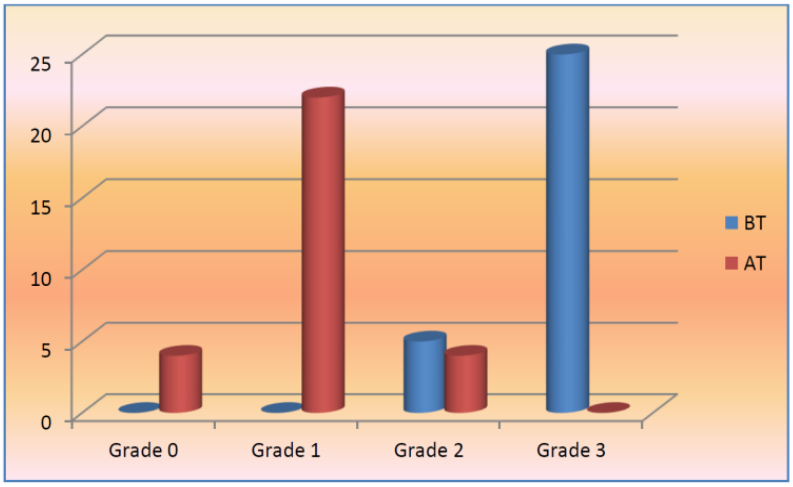


Table 20: Showing results of *Sandhi daha*

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	8	27	18	60
Grade 1	7	23	12	40
Grade 2	10	33	0	0
Grade 3	5	17	0	0

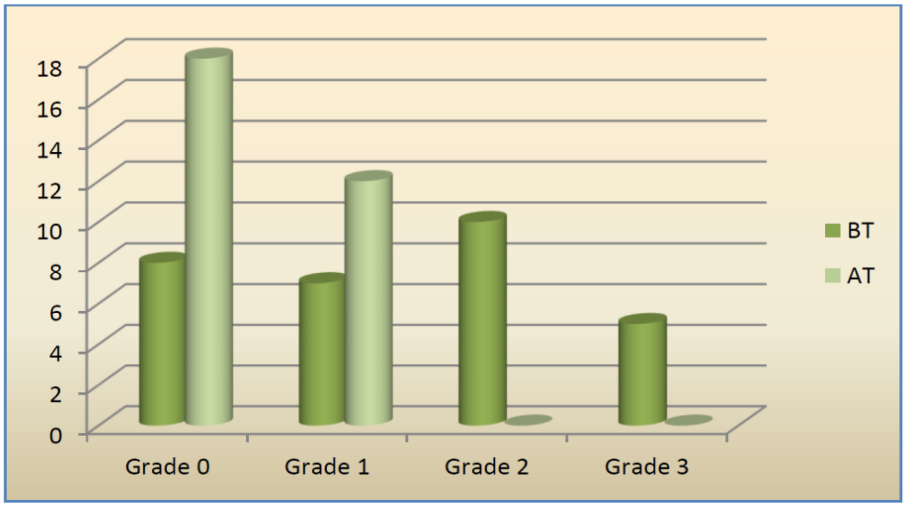


Table 21: Showing results of *Sandhi shotha*

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	4	13	13	43
Grade 1	7	23	17	57
Grade 2	14	47	0	0
Grade 3	5	17	0	0

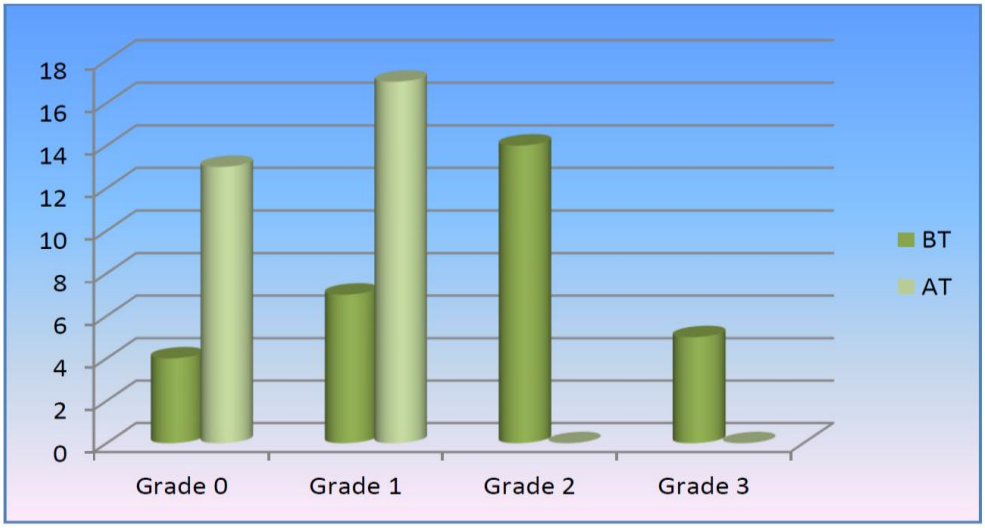


Table 22: Showing results of *Sandhi raaga*

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	14	47	21	70
Grade 1	5	17	9	30
Grade 2	9	30	0	0
Grade 3	2	7	0	0

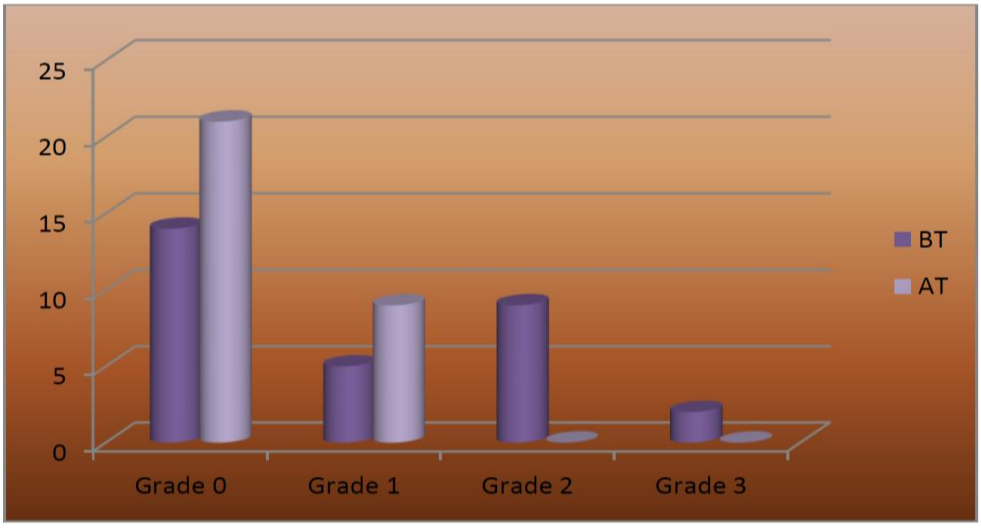


Table 23: Showing results of *Sandhi sthabdata*

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	2	7	13	43
Grade 1	6	20	16	53
Grade 2	17	57	1	3
Grade 3	5	17	0	0

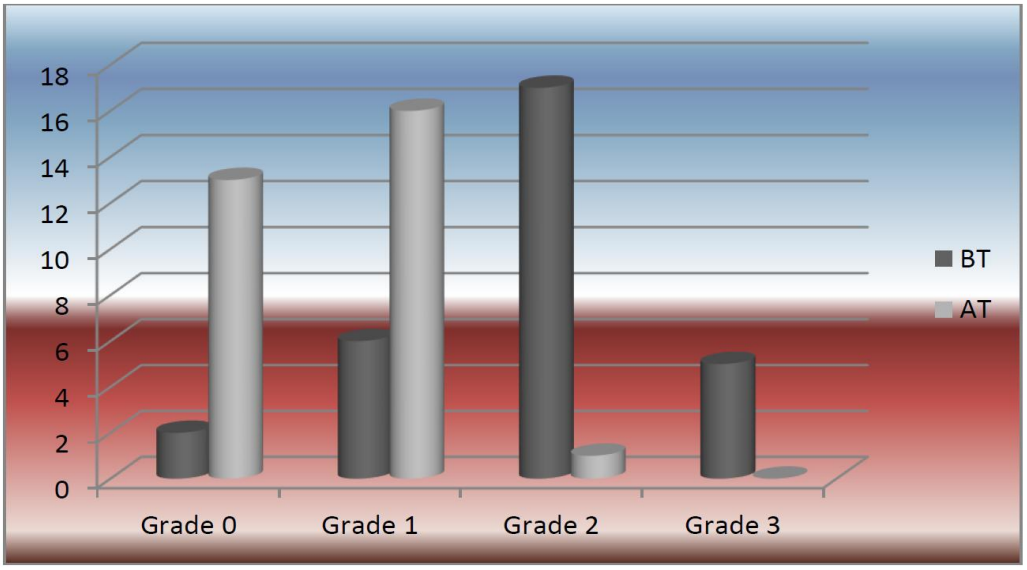


Table 24: Showing results in no. of joints involved

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	0	0	5	17
Grade 1	6	20	15	50
Grade 2	8	27	10	33
Grade 3	16	53	0	0

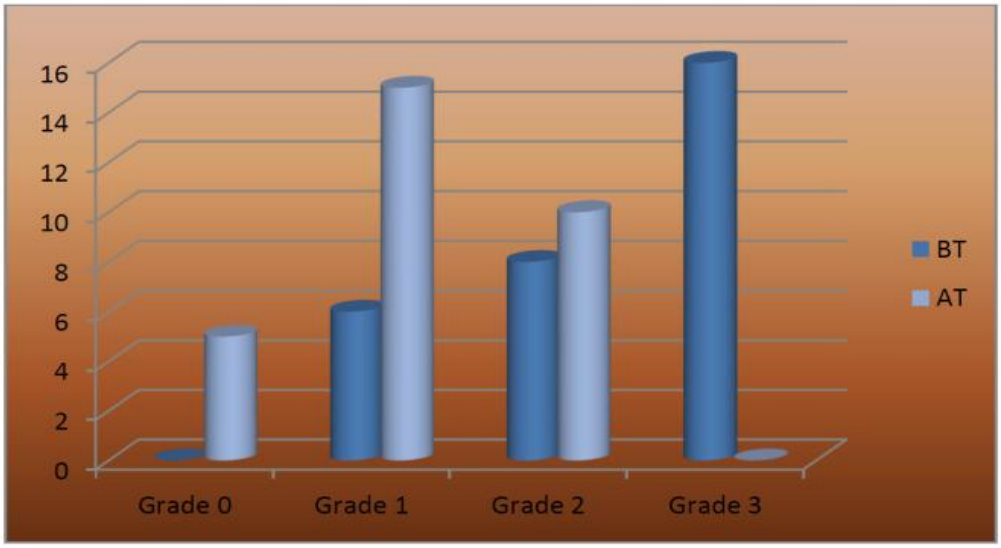


Table 25: Showing results in ESR levels

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	5	17	27	90
Grade 1	19	63	3	10
Grade 2	5	17	0	0
Grade 3	1	3	0	0

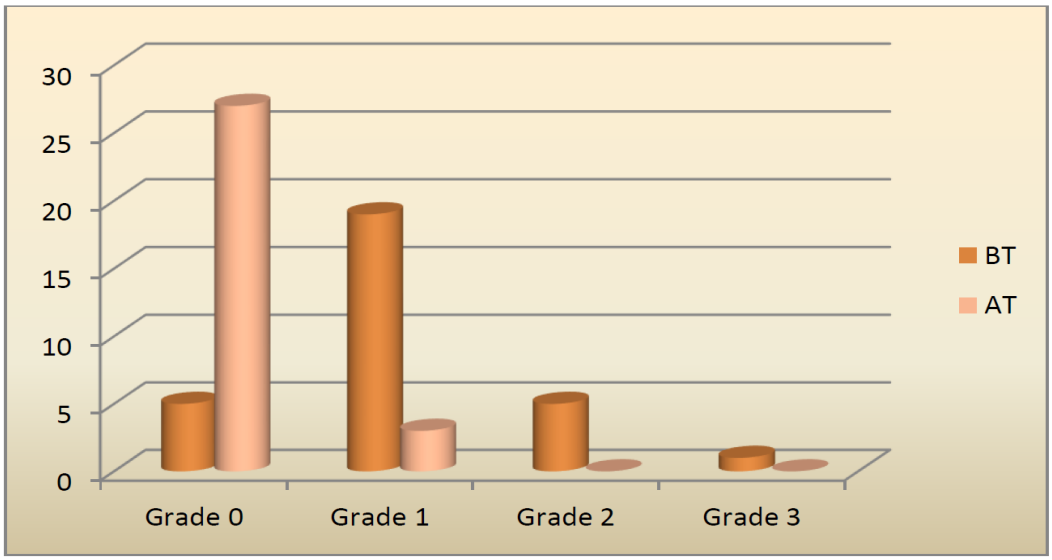
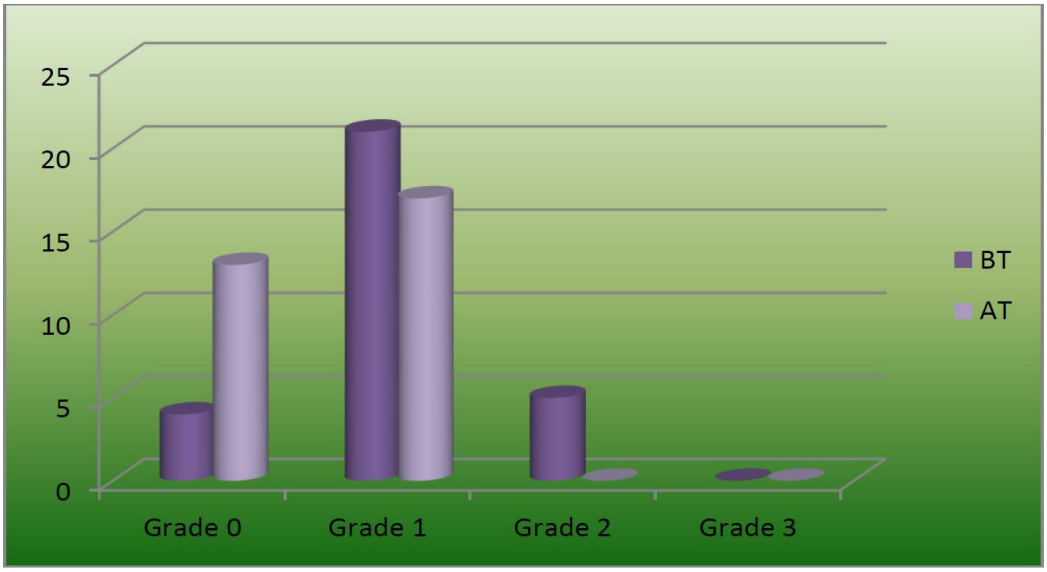


Table 26: Showing results in Serum uric acid levels

Grade	Before treatment		After treatment	
	No. of patients	%	No. of patients	%
Grade 0	4	13	13	43
Grade 1	21	70	17	57
Grade 2	5	17	0	0
Grade 3	0	0	0	0



Statistical Analysis

Table 27: Showing Statistical analysis of Subjective parameters using Wilcoxon Signed Rank test

S. no	Parameter	Mean (W)	S.D (W)	Z value	P-value	Significant
1	*Sandhi shoola*	232.5	48.62	-4.7821	<.00001	Significant
2	*Sandhi daha*	138	32.88	-4.1973	<.00001	Significant
3	*Sandhi shotha*	175.5	39.37	-4.4573	<.00001	Significant
4	*Sandhi raaga*	105	26.79	-3.9213	<.00001	Significant
5	*Sandhi sthabdata*	203	43.91	-4.6226	<.00001	Significant
6	No. of joints involved	138	32.88	-4.1973	<.00001	Significant

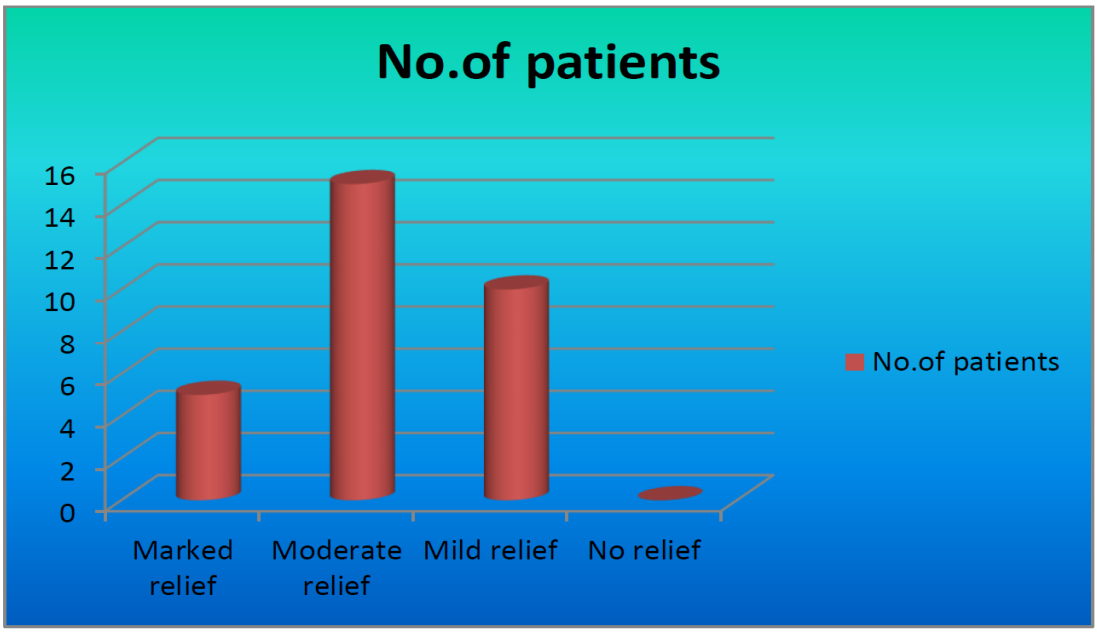
Table 28: showing Statistical analysis of Objective Parameters using Paired 't' test

S. no	Parameter	Mean		SD		t-value	p-value	Significance
		BT	AT	BT	AT			
1	ESR	0.60	0.10	0.89	0.31	3.75	0.0008	ESS
2	S. Uric acid	1.03	0.57	0.56	0.50	4.06	0.0003	ESS

Overall Assessment of Results

Table 29: Showing overall Assessment of Results

S. no	Assessment	No. of patients	%
1	Marked relief	5	17
2	Moderate relief	15	50
3	Mild relief	10	33
4	No relief	-	-



DISCUSSION

The present study on *Vatarakta* is done with two drugs, *Amruta guggulu* for internal administration and *Madhuyashtyadi taila* for external application on the affected joint.

The ingredients of *Amruta guggulu* are *Guduchi, Guggulu, Triphala, Trikatu, Danthi Vidanga* and *Trivrit* where as the main ingredients of *Madhuyashtyadi taila* are *Yashtimadhu* and *Tila taila*.

The management of the disease *Vatarakta* goes through two ways.

1. Management of symptoms
2. Breaking down the pathology - either by Xanthine Oxidase inhibitors which decrease the production of uric acid or excretion of Uric acid through uricosurics.

Guduchi has anti-inflammatory activity which gives symptomatic relief and also by its uricosuric action, excretes excess amounts of uric acid from the body. It also acts as *Rasayana* (anti-oxidant).

Guggulu has anti-inflammatory, anti-oxidant, uricosuric, anti-rheumatoidal properties thus helps in breaking down the patho-physiology of the disease.

Tripala, Trikatu, Danti, Vidanga and *Trivrit* have anti-oxidant, anti-inflammatory, analgesic, antipyretic, diuretic and immuno-modulatory properties. In this way the drug *Amrutha guggulu* has all the aspects of pharmaco-therapeutic effect required for the management of the disease.

Yashtimadhu has anti-inflammatory and anti-oxidant properties. *Tila taila* is the best *Vatahara* drug when used externally for *Abhyanga*. Thus, along with all other ingredients, *Madhuyashtyadi taila* acts as anti-inflammatory and analgesic, reducing the pain at the affected joint.

Discussion on Demographic Data

Incidence of *Vatarakta* according to:

Age

It is observed that gout prevalence increases in direct association with aging including elderly women. In children serum uric acid levels are at low levels. After puberty the levels start to increase to reach their normal levels. In elderly women the levels attain the range equal to men. Due to the change in the lifestyle, dietary habits the possibility of the disease may increases with age. This explains why gout is a disease of middle aged, older men and post menopausal women.

Gender

Because of the dietary habits and addictions like alcohol, there may be higher incidence of the disease in men when compared to women. Usually in men serum uric acid levels are higher than in women. However these levels in post menopausal women increase to reach men's level. In the present study all the women affected with the disease attained menopause. It can be considered that after menopause, due to the loss of uricosuric effect of estrogen the prevalence increases.

Occupation

Sedentary lifestyle associated with some occupations is an important etiological factor in the disease *Vatarakta*. In the present study majority of the patients are engineers, known to sit for longer times with lack of physical exercise. Their irregular food habits lead to disorders like obesity, diabetes mellitus and hypertension which are risk factors of hyperuricemia. It is also mentioned that excessive

travelling with the feet in dangling position on vehicles is one of the *Nidana* of *Vatarakta*.

Religion

It is very much difficult to observe ethnic differences in the incidence of gout. Individual lifestyle plays a major role irrespective of their religion. Variation in frequency of genetic disorders, such as inherited enzyme abnormalities, inherited urate under excretion as well as environmental factors such as diet, drugs and toxins contribute to the ethnic distribution of the disease.

Socio economic status

Gout is considered as the "disease of kings" or "rich man's disease". According to Ayurveda, one of the synonyms of the disease *Vatarakta* is *Adhya vata*. The word *Adhya* means rich person. Due to their lifestyle with more comfort and royalty in rich and middle class status, the prevalence may be more. Rich foods have a higher concentration protein. The consumption of alcohol or large, rich meals can lead to increase in fatty acids or ethanol concentrations which are associated with increased levels of serum uric acid.

Diet

Diet provides an exogenous source of purines and accordingly contributes to the serum urate in proportion to its content. High purine diet like sea food, red meat and organ meat might increase the risk of developing Gout. The involvement of free fatty acids in triggering release of IL-1B may be an important factor in the development of gouty flares.

Alcohol Consumption

According to Ayurveda, *Madya gunas* are *Amla rasa, Ushna, Teekshna, Sukshma, Vyavayi, Vikasi* which tend to vitiate *Rakta dhatu*, ultimately causing *Vatarakta*.

In modern point of view, researchers have proved that the purine nucleotide degradation during ethanol catabolism, inhibition of renal excretion of urate by lactic acid, and high purine guanosine content of certain kinds of beverages like beer are responsible for the elevation of serum uric acid levels following alcohol consumption in gouty arthritis patients. Some red wines contain purines or oxypurines which lead to an increase purine load. Alcohol may also contribute to obesity which is associated with under excretion of uric acid.

Prakriti

In present study *Vata-Pitta prakriti* persons are more affected with *Vatarakta*. *Pitta dosha* is more related to *Rakta dhatu, Rakta dushti* will simultaneously vitiate *Pitta dosha* and in disease *Vatarakta* it will also vitiate *Vata dosha.*

Incidence of Clinical Features

Sandhi shoola - 100%
Sandhi daha - 77%
Sandhi shotha - 87%
Sandhi raaga - 53%
Sandhi stabdata - 93%

Clinical Response to Treatment

- In the present study an effort has been made according to the guidelines laid down by the classical texts and American Rheumatological Association (ARA 2015), in the selection of the patient and final analysis of the results.
- All the parameters are scored according to the severity grade.
- The clinical response of the therapy was assessed on the basis of the change in the severity score after the treatment.

Subjective Parameters

Effect on *Sandhi shoola*

The initial mean score of the symptom *Sandhi shoola* is 2.9 and it came down to 1 after treatment exhibiting a statistically highly significant improvement with p-value <.00001 and about 65% relief.

Shoola is the cardinal symptom of the disease *Vatarakta* which exhibits strong association of *Vata dosha*. The drug *Amrutha guggulu* has its ingredients like *Guduchi, Guggulu, Triphala, Danti* which possess the properties of *Vatanulomana, Shoola prashamana* and *Vedanasthapana*. For external application, *Madhuyashtyadi taila* with its ingredients like *Tila taila*, *Abhiru, Twak, Vitunnaka* helps in reducing the pain with their *Shoola prashamana* property.

Anti-inflammatory activity of *Amrutha* reduces the inflammation and gives symptomatic relief. *Guggulu* possesses the properties of anti-inflammatory and anti-rheumatoidal which help in reduction of the symptom *Sandhi shoola.*

Effect on *Sandhi daha*

The initial mean score of *Sandhi daha* is 1.5 which came down to 0.4 after the treatment and is found to be statistically highly significant with p-value <.00001. Overall improvement in relief of the symptom is about 73%.

The symptom *Sandhi daha* shows the predominance *Pitta dosha. Amrutha guggulu* reduces the burning sensation with the *Dahaprashamana* property of ingredients like *Amalaki*, by balancing *Tridoshas*.

For external application, the drugs *Yashtimadhu, Chandana, Bhumyamalaki, Vidari, Hamsapadi, Chandana* and *Usira* have the properties of

Dahaprashamana and *Sheeta veerya* which might reduced *Daha* of the affected joint.

Effect on *Sandhi shotha*

The initial mean score of the symptom is *Sandhi shotha* is 1.7 and it came down to 0.6 after drug intervention and is proved to be statistically highly significant with p-value <.00001. Relief is about 66%.

Guggulu, Triphala, Danti, Sunti and *Trivrit* of *Amrutha guggulu* have *Shothahara* property. In *Madhuyashtyadi taila,* the ingredients *Yashtimadhu*, *Shalaparni, Bhumyamalaki, Manjishta* and *Vitunnaka* possesses the same property which may be considered to reduce *Shotha* at the affected joint.

Effect on *Sandhi raaga*

70% improvement is observed in the symptom of *Sandhi raaga*. The initial mean score is 1 and after the treatment it has come down to 0.3. This improvement is found to be highly significant with p-value <.00001.

Erythema is associated with vitiated *Pitta* and *Rakta*. *Raktokleshaka* and *Raktashodhaka* properties of herbs like *Maricha, Vidanga, Amalaki* might be useful in bringing down the discolouration of the inflamed skin. Vasodilatory property increases the blood circulation to the affected joint and enhances the process of phagocytosis of antigen-antibody complexes responsible for hypersensitivity which gave rise to erythema, inflammation.

Madhuyashtyadi taila has the drugs *Sariba*, *Twak, Chandana, Aindri, Durva, Hamsapadi* possessing *Raktashodhaka* property. *Manjishta, Agaru* are *Varnya* which help in reducing the *Raaga* at the affected site.

Effect on *Sandhi stabdata*

The initial mean score is 1.8 and after drug intervention it is 0.6 which is statistically highly significant with p-value <.00001. Overall improvement in the symptom is 67%.

Stabdata (stiffness) may be due to the pain which results in muscle spasm in the affected joint. It can be associated with *Kapha* vitiation. *Vata-kapha hara* drugs like *Trikatu, Vidanga, Ashwagandha*, *Satapushpa* might be helpful for bringing down the *Stabdata* of the affected joint. *Maricha* acts as muscle relaxant. It is observed that anti spasmodic property of *Haritaki, Vibhitaki, Shalaparni, Vidari*, *Tamalaki* is very much beneficial in bringing down the stiffness.

Effect on No. of joints Involved

53% relief in the symptom is observed in the symptom. The mean initial score is 2.3 and after the treatment is 1.3 which is found to be statistically highly significant with p-value <.00001.

The decrease in no. of joints involved after the treatment may be due to the anti-rheumatoidal, anti-inflammatory, anti-oxidant properties of the drugs present in *Amrutha guggulu* and *Madhuyashtyadi taila* by bringing down the symptoms. Anti-oxidant property of *Haritaki, Danti, Maricha* helps in rejuvenation of the joint by healing the deformed tissue along with breaking the pathology of the disease.

Objective Parameters

Effect on ESR

The initial mean score is 0.6 and after drug intervention it is 0.1 with p-value equals to 0.0008 which is considered to be extremely statistically significant. Overall improvement is 83%.

Vatarakta being an inflammatory disease, in most of the cases ESR levels are found to be raised. The decrease in ESR levels after the treatment might be due to *Amapachana, Agnideepana, Raktaprasadana, Srotoshodhana* and anti-inflammatory, anti-oxidant, immunomodulatory properties of the drug *Amrutha guggulu*.

Effect on Serum Uric Acid Levels

The average decrease in serum uric acid levels is found to be 45%. The initial mean score is 1.03 and after the treatment is 0.6, p-value is 0.0003 which is considered to be extremely statistically significant.

The drugs *Amrutha* and *Guggulu* are known to have uricosuric action which excretes excess amounts of uric acid from the body. *Triphala* works as a xanthine oxidase inhibitor like allopurinol which suppresses the production of uric acid. *Amalaki* is a good source of vitamin C which is associated with lowered serum uric acid levels. When serum uric acid is lowered below MSU saturation point, the crystals dissolve and gout can be cured.

DISCUSSION ON RESULTS

The overall outcome of the trail is assessed by considering the results of the parameters, both before and after treatment. A significant change is observed in both subjective parameters like *Sandhi shoola, Sandhi daha, Sandhi shotha, Sandhi raaga, Sandhi stabdata* and objective parameters like serum uric acid levels, ESR values.

In the present study on *Vatarakta*, marked relief is observed in 5 members (17%), moderate relief is in 15 members (50%), mild relief is observed in 10 members (33%).

CONCLUSION

In the present study, total no. of 30 patients suffering from the disease are selected for the study and the treatment period is 90 days. Along with the administration of drugs, patients are advised strict diet restrictions like non-vegetarian food and alcohol.

From the study it has been observed that the drugs are very effective in reducing the symptoms. The results are statistically significant in all subjective and objective parameters.

Finally it can be concluded that the drug *Amrutha Guggulu* and *Madhuyashtyadi taila* have beneficial role in the management of the disease *Vatarakta* as described in our texts and this study has proved the same.

REFERENCES

1. Charaka samhitha by Prof. Priyavrat Sharma, Volume 2, Chaukhambha Orientalia, 6th edition 2001, Chikitsa sthana, 29/1-29
2. Susrutha samhitha by Prof. K.R. Srikantha Murthy, Vol 1, Chaukambha Orientalia, Reprint edition: 2008, Nidana sthana, 1/50 - 59, Vol 2, edition: 2nd 2005, Chikitsa sthana, 5/1 - 18
3. Ashtanga Sangraha of Vagbhata, by Prof. K.R. Srikantha Murthy, Vol 2, Chaukambha orientalia, 5th edition: 2005, Nidana sthana, 16/1-18, Chikitsa sthana, 24/1-33.
4. Ashtanga Hrdayam of Vagbhata by Prof.K.R. Srikantha Murthy, Vol. 2, Choukambha Krishnadas Academy, edition: Reprint 2006, Nidana sthana, 16/1-17, Chikitsa sthana, 22/1-48.
5. Bhela samhitha by P.V. Sharma, Chaukambha Visvabharathi, Reprint: 2008, Chikitsa sthana, 15/1-54.
6. Harita samhitha by Harihara Prasad Tripathi, Chaukambha Krishnadas Academy, edition: 2004, 23/1-11
7. Gadanigraha of Sri vaidya Sodhala, edited by Sri Ganga Sahaya Pandeya, Part 2, Chaukambha Sanskrit Sansthan, edition: Reprint 2005, 20/1-65.
8. Vangasena samhitha of Vangasena by Dr. Nirmal Saxena, Vol 1, Chowkambha Sanskrit Series Office, edition: 2nd 2014, 29/1-222.
9. Madhava nidana of Madhavakara by Prof. K.R. Srikantha Murthy, Chaukambha Orientalia, edition: 7th 2005, 23/1-18.
10. Bhavaprakasha of Sri Bhavamisra by Bhisagratna Pt. Sri Brahmasankara Misra, part 2, Chaukambha Sanskrit sansthan, Fifth edition: 1980, Chikitsa prakaranam, 27/1-265.
11. Yogaratnakara by Dr. Madham Shetty Suresh Babu, Vol 1, Chowkambha Sanskrit Series Office, edition: 2nd 2011, chapter, Vatarakta.
12. Bhaishajya Ratnavali of Sri Govinda Dasji, Vol 2, Chaukambha Sanskrit Bhavan, edition: 1st 2006, 27/1- 205.
13. Chakradatta by Priyavrat Sharma, Chaukambha Orientalia, edition: 2007, 23/1-78
14. Rheumatology, Marc C.Hochberg, Alan J. Silman, Josef S. Smolen, Michael E. Weinblatt, Michael H. Weisman, Vol 2, 4th edition, Section 14, chapter 174, 175, 176.
15. Davidson's Princilples & Practice of Medicine, 22nd edition, part 2, 25th chapter.
16. Data Base on Medicinal Plants used in Ayurveda by P.C.Sharma, M.B Yelne, T.J. Dennis, Vol 1, 2, 3, 5, 6, 7, 8, Central Council for Research in Ayurveda & Siddha, Edition: 2005.
17. Bhavaprakasha Nighantu of Sri Bhavamisra by K.C.Chunekar and G.S.Pandey, Chaukambha Sanskrit series office, 5th edition: 1969

Cite this article as:
Jyothi Rapolu, K. Laxmikantham, P.Srikanth Babu. The Efficacy of Amruta Guggulu (Internal) and Madhuyashtyadi Taila (External) in the Management of Vatarakta w.s.r. to Gouty Arthritis. AYUSHDHARA, 2024;11(2):1-16.
https://doi.org/10.47070/ayushdhara.v11i2.1534
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Jyothi Rapolu
Assistant Professor,
Dept of Kayachikitsa,
A.L.Govt.Ayurvedic College,
Warangal, Telangana.
Email: rapoluj1@gmail.com