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RESEARCH ARTICLE

A COMBINED EFFICACY OF KAISHORE GUGGULU AND PUNARNAVADI GUGGULU IN THE MANAGEMENT OF VATARAKTA (GOUT): A CASE SERIES.

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Key words:-

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Abstract

Even though Gout is generally grouped under Arthritis, it is a metabolic disorder of Uric Acid. Extensive description of Vatarakta in ayurvedic classics shows that it was prevalent widely in that era too. In present era changes in lifestyle & food habits leads to recognizable increase in incidence of Vatarakta in common people. Total 35 patients of Vatarakta (Gout), out of which 32 patients completed the course of treatment. Study was Open label, Interventional, Prospective and Single arm clinical trial for the duration of 42 days (6 weeks). Patients were given Kaishore Guggulu and Punarnavadi Guggulu 2 tablets (500 mg) each twice a day with lukewarm water. The required amount of medicines was supplied by the IMPCL (A Govt. of India Enterprise) Mohan – Dist. Almora, Utrakhnad after ensuring safety and quality batch to batch. Patients were followed 2-week interval i.e. on 2nd, 4th and 6th week of treatment period. The effects of treatment on subjective and objective parameter evaluated. Results obtained shows encouraging results in the management of Vatarakta (Gout) with no side effects observed so far.

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Introduction:-

Non-communicable diseases and chronic diseases/ disorders get favor from the faulty life style of modern society. The factors contributing to the life style disorders includes faulty food and drink habits like irregular eating, fast food eating, alcohol, smoking, tobacco chewing, drugs addiction, and sedentary life, irregular sleeping pattern & stress. Non-communicable diseases are different because they are preventable and their incidence can be lowered by adopting healthy dietary habits and life style. Vatarakta also known as Adhayavataⁱ emerges from inappropriate dietary regime, occupation and environment. The term Adhayavata is self-explanatory that it is more prevalent among Adhya (Rich people). The causative factors of Vatarakta mentioned in Charak samhita are closely related to faulty eating habits and sedentary life style. The symptomatology of Vatarakta like Shool, Shotha, Sparshasahatvam etc. mimics the symptoms of Gout. Purines metabolism (found in many foods and in human tissue) result into production into uric acidⁱⁱ. Gout is caused by hyperuricemia (serum uric acid >7mg/dL), which leads to the deposition of monosodium urate (MSU) crystals in tissue. An imbalance in the production and excretion of urate, i.e., overproduction, underexcretion or both leads into hyperuricemia. Asymptomatic hyperuricemia (serum uric acid

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up to 8mg/dL) does not need to be treated. Risk factors for gout include being (Adhya) obese, having insulin resistance, hypertension (obesity, insulin resistance & hypertension collectively called Metabolic X Syndrome), congestive heart failure, alcohol (Sura-Asava) intake (beer and spirits more than wine), diuretic use, a diet rich in meat and seafood (Kllin-Shuksha-Ambuj-Anoop Mansa), and poor kidney function^{iii,iv}.

Vatarakta is a burning problem of the society. This may compromise the quality life of patient due to permanent inflammatory and degenerative changes in the joints.

Aim And Objective:-

To study combined clinical efficacy of Kaishore Guggulu and Punarnavadi Guggulu in the management of Vatarakta (Gout).

Material And Methods:-

Present study was Open label, Interventional, Prospective and Single arm clinical trial for the duration of 42 days. Total 35 patients were enrolled, in which 32 patients completed clinical trial. Three dropout patients left study due to their personal reasons.

Selection of Cases:-

The selection of patients was made randomly from OPD of Regional Ayurveda Research Institute for Nutritional Disorders (RARIND), Mandi, Himachal Pradesh. (A peripheral institute of Central Council for Research in Ayurvedic Sciences, New Delhi, Ministry of AYUSH, Govt. of India.)

Inclusion Criteria:-

- Diagnosed and confirmed cases of Vatarakta.
- Age between 21-80 years of either sex.
- Patient willing to give consent to participate in the study.

Exclusion Criteria:-

- Patient on Hypouricemic therapy, Steroids, and Pain killers.
- Osteoarthritis, Rheumatoid arthritis.
- Patients with other severe illness.
- Pregnancy

Subjective parameters for Assessment:-

Sandhishula (Pain in Joints), Toda (Piercing pain), Sandhi shotha (Swelling), Tenderness, Daha (Burning sensation), Erythema, Ushma (Warmth), Stabdhta (Stiffness) and Acute flares of disease.

Objective parameters for assessment: Serum Uric Acid.

Laboratory Investigations: CBC, ESR, RFT, LFT, Lipid Profile, Urine R/M, ECG, Chest X-Ray PA View.

Intervention:-

Kaishore Guggulu and Punarnavadi Guggulu 2 tablets (~500 mg) each twice a day with lukewarm water after meals. The required amount of medicines was supplied by the IMPCL (A Govt. of India Enterprise) Mohan, Almora, Uttarakhand, after ensuring safety and quality batch to batch. Patients were followed every 2-week interval i.e. on 14th day, 28th day and 42nd day of treatment period. Results were statically analyzed at the end of the study by Paired Student's t-test.

Drug Contents: **Table 1** showing contents of Kaishore Guggulu and **Table 2** showing contents of Punarnavadi Guggulu.

Observations and Results:-

Observations: In present study patients were selected from age group of 20-90 years (**Table 3**), (n=32), out of which highest 25% were of 51-60 age group followed by 21.87 % each of 41-50 & 61-70 age group, 15.62% were in 31-40 age group and 3.12% were in each of 21-30 & 81-90 age group. Gender wise (**Table 4**) 31.25% were females and 68.75% were males. In Sr. Uric Acid (**Table 5**), 87.5% of patients had hyperuricemia (Sr. Uric acid >6.8mg/dL) at baseline of study and after 42 days (6 week) of treatment 90.62% of patients achieved normal Sr. Uric Acid levels. Symptoms wise (**Fig. 1**) 100 % patients had Sandhishula (Pain in Joints), 87.5% patients had Toda (Piercing

pain), 100% had Sandhi shotha (Swelling), 90.6% had Tenderness, 65.6% had both Daha (Burning sensation) & Erythema, 62.5% had Warmth, 68.75% had Stabdhta (Stiffness) and 78.12% had Acute flares of disease.

Results:-

The change in mean Serum Uric Acid at Baseline and 6 weeks was analyzed by paired Student's t-test and results were statically significant (P Value <0.0001) (Table 6). Severity of symptoms were analyzed before (baseline) and after intervention (42nd day) by Paired Student's t-test (Table-7), and result shown significant results (P<0.0001) in Sandhishula (Pain in Joints), Toda (Piercing pain), Sandhi shotha (Swelling), Tenderness, Daha (Burning sensation), Erythema, Warmth, Stabdhta (Stiffness) and Acute flares of disease. Percentage Relief in Symptoms (Fig. 2) after intervention of 42 days (6 weeks) was 80% in Sandhishula (Pain in Joints), 73% in Toda (Piercing pain), 87% in Sandhi shotha (Swelling), 81% in Tenderness, 76% in Daha (Burning sensation), 84% in Erythema, 88% in Warmth, 72% in Stabdhta (Stiffness) and 72% in Acute flares of disease.

Discussion:-

Gout is a metabolic disease that most often affects middle-aged to elderly men and postmenopausal women^v; in present study age group 41-70 year (68.75 %, n=22). Gout is more prevalent in males^{vi}, in this study males are 68.75% (n=22) of sample size (n=32).

Kaishore Guggulu:-

Kaishore Guggulu^{vii} is a drug of choice in Vatarakta (Gout). It corrects purine metabolism and checks on uric acid production. Further, it improves the elimination process of uric acid through urine. Anti-inflammatory properties of Guggulu^{viii,ix}, Guduchi^{x,xi}, Shunthi^{xii}, and Trivrit^{xiii} relieves in inflammation induced by crystals to synovial membrane and adjacent tissues. Amalaki^{xiv} and Shunthi¹¹ act as analgesics, relieving in Toda (Piercing pain), tenderness, Sandhi Shula (Pain in joints) in gout patients. Haritaki^{xv} and Amalaki^{xvi,xvii} has adaptogenic property reducing acute flares in gout patients. Bibhataki^{xviii} shows nephroprotective property, a reduces chances of Uric acid stone development in patients of Gout. Danti^{xix} and Pippali^{xx} have immunomodulator property, hence reducing symptoms of Gout. **Punarnavadi Guggulu:** Punarnavadi Guggulu potentiate treatment with its diuretic effect. Through urine increasing uric acid excretion and hence lowering blood serum levels of Uric Acid.

Conclusions:-

Combine therapy with Kaishore Guggulu and Punarnavadi Guggulu in Vatarakta (Gout) shows marked improvement in various parameters with no apparent adverse effects observed so far.

Table 1:- Contents of Kaishore Guggulu.

Sr. No.	Hindi Name	Botanical Name	Part Used
1.	Guggulu	<i>Commiphora mukul</i>	Oleo resin
2.	Haritaki	<i>Terminalia chebula</i>	Fruit
3.	Bibhataki	<i>Terminalia bellerica</i>	Fruit
4.	Amalaki	<i>Emblica officinalis</i>	Fruit
5.	Guduchi	<i>Tinospora cordifolia</i>	Stem
6.	Shunthi	<i>Zingiber officinale</i>	Rhizome
7.	Maricha	<i>Piper nigrum</i>	Seed
8.	Pippali	<i>Piper longum</i>	Fruit
9.	Vidanga	<i>Embelia ribes</i>	Fruit
10.	Trivrit	<i>Operculina turpethum</i>	Root
11.	Danti	<i>Baliospermum montanum</i>	Seed

Table 2:- Contents of Punarnavadi Guggulu.

Sr. No.	Hindi Name	Botanical Name	Part Used
1.	Punarnava	<i>Boerhavia Diffusa</i>	Root
2.	Devdaru	<i>Cedrus Deodara</i>	Stem bark
3.	Haritaki	<i>Terminalia chebula</i>	Fruit
4.	Guduchi	<i>Tinospora cordifolia</i>	Stem
5.	Shudh Guggulu	<i>Commiphora mukul</i>	Oleo Resin
6.	Gomutra	-	Cow urine

Table 3:- Age wise distribution of patients (n=32).

Age Group	Number of patients	Percentage (%)
21-30	1	3.125
31-40	5	15.625
41-50	7	21.87
51-60	8	25
61-70	7	21.87
71-80	3	9.375
81-90	1	3.125

Table 4:- Gender wise distribution (n=32).

Gender	Number	Percentage (%)
Male	22	68.75
Female	10	31.25

Table 5:- Hyperuricemia (Sr. Uric Acid >6.8mg/dL) among patients (n=32).

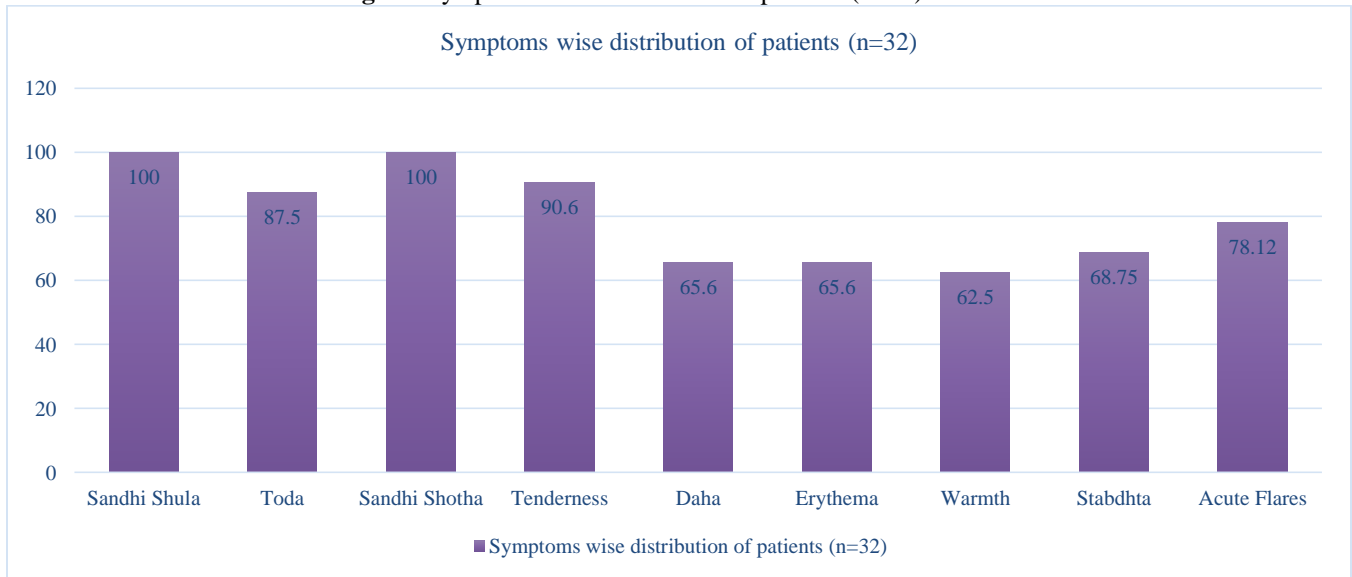
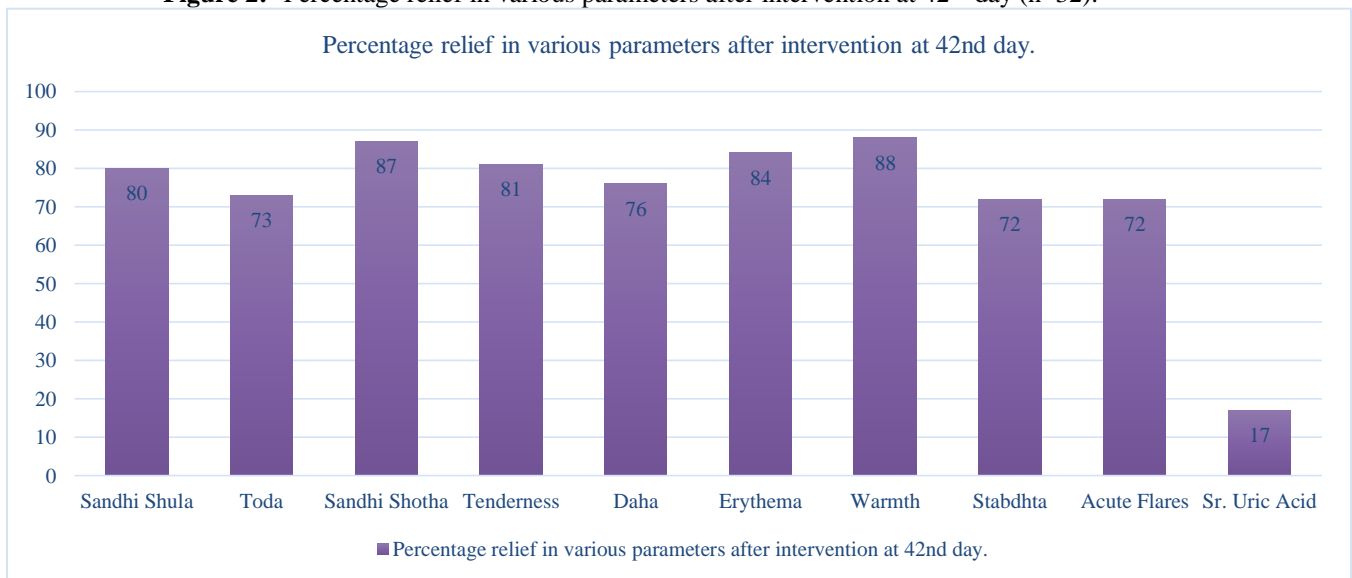
At Baseline		After 42 Days (6weeks)	
Number of patients	Percentage	Number of patients	Percentage
28	87.5	3	9.37

Table 6:- Statistical analysis of improvement in Sr. Uric Acid after 42 days (6 weeks) of treatment (n=32).

Observations	Mean			S.D.	S.E.	T Value	P Value
	BT	AT	Diff.				
Sr. Uric Acid	7.4	6.1	1.3	0.48	0.085	15	<0.0001

Table 7:- Statistical analysis of improvement in various symptoms of Vatarakta after 42 days (6 weeks) of treatment (n=32).

Observations	Mean			S.D.	S.E.	P Value
	BT	AT	Diff.			
Sandhi Shula	2.469	0.45	2	0.71	0.13	<0.0001
Toda	1.5	0.35	1.1	0.87	0.16	<0.0001
Sandhi Shoth	1.6	0.26	1.4	0.55	0.1	<0.0001
Tenderness	1.6	0.35	1.3	0.86	0.15	<0.0001
Daha	1.1	0.29	0.84	0.83	0.15	<0.0001
Erythema	1.0	0.23	0.84	0.82	0.15	<0.0001
Ushma	0.87	0.097	0.77	0.76	0.14	<0.0001
Stabdhta	1.2	0.39	0.87	0.76	0.14	<0.0001
Acute Flare	1.2	0.39	0.87	0.72	0.13	<0.0001

Fig. 1:- Symptoms wise distribution of patients (n=32)**Figure 2:-** Percentage relief in various parameters after intervention at 42nd day (n=32).**References:-**

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