



Research Article

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ROLE OF GUGGULUTIKTAKA GHRITA IN THE MANAGEMENT OF OSTEOARTHRITIS W.S.R. TO KNEE JOINT

Babasaheb D. Patil^{1*}, Manoj L. Sonaje²

¹Associate Professor, Department of Samhita & Basic Principle, L.K.R. Ayurveda Medical College & PG Research Centre, Gadhinglaj, Kolhapur, Maharashtra, India

²Assistant Professor, Department of Shalyatantra, L.K.R. Ayurveda Medical College & PG Research Centre., Gadhinglaj, Kolhapur, Maharashtra, India

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*Corresponding author

E-mail: drbabasahebpatil@gmail.com

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ABSTRACT

Osteoarthritis is most widespread form of arthritis seen in elderly and knee joint pain is the most common complaint for which medical advice is sought in such circumstances. Major treatment for this complaint is prescription of established calcium compounds with NSAID's. But with this established treatment also total eradication of the pain is not possible. Basti (a medicated enema) in Ayurveda is practiced in many connective tissue disorders like Rheumatoid Arthritis, Osteoarthritis, Gout, Lumbar Sprain, Spondylosis etc. The present study was conducted at L.K.Redekar Ayurveda College and PG Research Centre Gadhinglaj Dist Kolhapur, India, with the aim and objective of assessing efficacy and safety of Guggulutiktaka ghrita in the management Knee Osteoarthritis. It's found that there is incredible role of guggulutiktaka ghrita in the management of sandhigatavata vis as vis Osteoarthritis

Keywords: Osteoarthritis, Guggulutiktaka Ghrita, Knee joint, Sandhigatavata

INTRODUCTION

Osteoarthritis is a foremost health problem considering its associated disability and impact on the quality of life. It is a leading cause of disability in elderly people¹. Patients of osteoarthritis usually come with joint pain, stiffness and localized swelling which get worse in the morning and relieved after some movement in hour². According to W.H.O. osteoarthritis is the second commonest musculoskeletal problem in the world population. In India osteoarthritis of knee joint is more common than hip joint³. The incidence prevalence and availability of subjects knee joint arthritis was taken for the subject of interest.

Analgesics and NSAID's relive pain and improve function but prolonged use of these drugs may not be encouraged due to their adverse reactions. So it is a need of hour to find out alternate therapy to combat the pain as well as improve the quality of life of individual. A pilot clinical trial was designed to find out a solution to knee osteoarthritis with 'Guggulutiktaka Ghrita, which is vataghna (Vata pacifier) in nature. In Ayurvedic literature the Guggulu tiktaka ghrita is being used for treatment of asthimajja kshaya⁴ and also the combination explained in asthimajjagata Vata. This drug is mentioned by Ashtanga Hridaya in the management of bones and associated disorders⁵.

MATERIALS AND METHODS

Selection of Patient

The patients were selected irrespective of cast, creed, religion, sex from OPD and IPD Department of L.K.R. Ayurveda Hospital, Kolhapur, India, in the duration of Jan 2011-June 2012. The study was performed as per the

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The patients were selected via randomly selection method. The patients were clinically assessed and diagnosed on the basis of history and clinical examination. The patient who had clinical sign and symptoms of osteoarthritis was selected as per inclusion and exclusion criteria.

Lab Investigations

- Hemogram
- RA Test
- ASO Titer
- Serum Calcium
- Serum Uric Acid

Inclusive Criterion

- Age group from 40 – 80 years.
- Clinically and radiologically diagnosed patients of Knee Osteoarthritis

Exclusive Criterion

- Diabetes, Hypertension and all systemic disorder which can hamper its treatment were excluded
- Age group below 30 and above 80 were excluded
- Patients of fracture, Rheumatoid arthritis, Gout

Intervention

Name of Drug: Guggulu tiktaka Ghrita.

Reference: Ashtanga Hridaya

Indication: Bones and associate disorders

Route: Oral

Dose: 20 g

Vehicle: Luke warm water

Frequency: Once in a day

Timing: Early in the morning

Duration: 45 Days

Drug Review

Guggulutiktaka ghrita is mentioned in Ashtanga Hridaya. Ghrita was prepared as mentioned in sharandhara samhita. Guggulutiktaka Ghrita contains

- Nimba (*Azadirachta indica*)
- Amrita (*Tinospora cordifolia*)
- Patol (*Tricosanthus cucumerina*)
- Kantakari (*Solanum xanthocarpum*)
- Vamsha (*Bambusa arundinacea*)
- Amalaki (*Emblica officinalis*)
- Bibhitaki (*Terminalia bellerica*)
- Haritaki (*Terminalia chebula*)
- Shunthi (*Zinziber officinale*)
- Maricha (*Piper nigrum*)
- Pippali (*Piper longum*)
- Musta (*Cyperus rotundus*)
- Haridra (*Curcuma longa*)
- Daruharidra (*Berberis aristata*)
- Vatsaka (*Holarhena antidysentrica*)

- Pippalimula (*Piper longum Radix*)
- Chitraka (*Plumbago zeylenica*)
- Bhallataka (*Semicarpus anacardium*)
- Katuki (*Picrorhiza kurrora*)
- Ativisha (*Aconitum heterophyllum*)
- Vacha (*Acorus calamus*)
- Vidanga (*Emblia ribes*)
- Yavakshara
- Sajjikshara

Assessment criteria

Subjective parameters

- Pain in the knee joints.
- Local Tenderness
- Morning stiffness duration.
- Localized swelling

The all gradation were adopted as per WOMAC Gradation Scale.⁶

Objective parameters

Angle of extension and flexion (Goniometry)

OBSERVATIONS AND RESULTS

Table 1: Observations of Study

N	Observation	Max Observation	Max no	%
31	Sex	Male	22	74.19
31	Age Group	51-70	26	83.87
31	Prakriti	Vata Kaphaja	16	51.61
31	BMI	Normal Wt 18.5 to 24.9	23	74.19
31	Habitat	Rural	26	83.87
31	Religion	Hindu	30	96.77
31	Occupation	Agriculture	17	54.83
31	Economic Status	Poor	22	70.96
31	Educational Status	Literate	22	70.96
31	Manasik Prakriti	Rajasik	19	61.29
31	RA Test	Positive	12	38.70
31	ASO Titer	Positive	14	45.16
31	Sleep	Disturbed	16	51.61
31	Koshtha	Krura	16	51.61
31	Mala	Irregular	17	54.83
31	Mutra	Regular	19	61.29
31	Kshudha	Good	18	58.06
31	Diet Type	Irregular Non veg Mixed	25	80.64
31	Diet Habit	Vishamasana	26	83.87
31	Nature of work	Labor	16	51.61
31	Nutrition	Poor	18	58.06

Table 2: Statistical Analysis of Assessment parameter by Wilcoxon sign rank test

Sign and Symptoms	N		Median	25%	75%	W	t	P
Localized swelling	31	BT	27.0000	24.250	28.750	-378.0	-378.00	<0.001*
		AT	24.0000	21.250	26.000			
Duration of morning Stiffness	31	BT	60.000	32.500	120.00	-496.0	-496.00	<0.001*
		AT	0.000	0.000	60.000			
Tenderness	31	BT	2.000	2.000	3.000	-406.0	-406.00	<0.001*
		AT	1.000	0.000	1.000			
Pain In Knee Joints	31	BT	3.000	3.000	3.000	-465.00	-465.00	<0.001*
		AT	1.000	0.000	1.000			

Table 3: Statistical Analysis of Assessment parameter by paired't' test

Sign and Symptoms	N		Mean	MD	SD	SEM	T	P
Angle of Extension and Flexion	31	BT	95.613	36.355	18.457	3.315	8.888	<0.001*
		AT	59.258					

As per statistical analysis it was found that Guggulutiktaka Ghrita have significant role in reducing all subjective and objective parameters of Knee joint arthritis with p value < 0.001.

DISCUSSION

The disease is found in elderly, in dry and suburban region, the male is more prone to disease due to physical hard work. The malnourish peoples found more in particular study. The overall improvement in various clinical parameters according to Ayurveda might be a result of elimination of vitiated Vatadosha and decrease in the dhatukshaya and also reducing the inflammation by the application of tiktarasa dravyas. There was no any adverse effect noticed during or after the treatment. It was not known that what is the role of this therapy in long term management of osteoarthritis. Does it recur or not or it vanishes totally. For this purpose a separate study may be beneficial.

CONCLUSION

On the basis of this pilot study we can say that administration of Guggulutiktaka Ghrita is an effective medicine in reduction of pain, swelling, tenderness and restrictions to movements without any noxious effect which is very important.

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