



A CLINICAL STUDY TO EVALUATE THE EFFICACY OF YOGOTTAMA GUTIKA IN JANUSANDHIGATA VATA w.s.r OSTEOARTHRITIS

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ABSTRACT

Objective: To evaluate the the efficacy of yogottama gutika in janusandhigata vata w.s.r osteoarthritis. **Method-** Interventional non-randomized open labeled single group study with pre-test and post-test design. Twenty patients diagnosed with Janusandhigatavata, aged 40-70yrs irrespective of gender and caste were selected from OPD/IPD of SDM Ayurveda Hospital, Udupi. The patients were selected as per inclusion and exclusion criteria and administered with 8capsules of 500mg yogottama gutika thrice a day for 14 days. Statistical analysis was done using students paired t test and Wilcoxon signed rank test. **Result-**Yogottama gutika showed improvement on pain pn right knee joint by 48% and left by 64%, Stiffness on right by 74% and left by 75%,Swelling on right knee by 50% and left by 20%, Tenderness on right by 52% and left knee by 69%, Range of movement on right knee by 70% and left by 50%, 30m walk by 41%, 10 situps by 33%, 10 steps climbing by 35%, WOMAC score by 47%. **Conclusion:** *Yogottama gutika* is effective on *janusandhigata vata*. It is evident with a highly significant statistical result in the symptoms of both subjective and objective criteria, with effective remission seen in overall parameters which were considered for present study.

Key Words: *Janusandhigatavata, Yogottama gutika, Osteoarthritis.*

INTRODUCTION

Sandhigatavata is mentioned as one among the vata vyadhi, affecting the sandhi. Osteoarthritis is typically a progressive disease that may eventually lead to disability. It gets debilitating over time which affects the quality of life in an individual.

Vata dosha is considered to play a major role in maintaining samyavastha of tridosha¹.The dosha involved in Sandhigatavata is vata, associated with Kapha occasionally. Pain is the main feature of the disease. The

morbid vata dosha does shoshana of shleshaka kapha situated in sandhi and it is more evident in asthi dhatu as asthi and vata are having aashraya ashrayi sambandha. Clinically it is manifested as shotha, shoola, stabdhata and sandhi sputana and atopa.

Osteoarthritis is considered under umbrella of degenerative disease of joints. Osteoarthritis is the most common articular disease and a major cause of chronic disability² It is the second most common musculoskeletal problem in the world (30%) after low back ache (50%). It is a chronic degenerative disorder not just localized to the cartilage. It involves articular cartilage, meniscus, ligament and periarticular muscle that may result from multiple pathophysiological mechanisms.

The risk factors that include are old age, overweight and obesity, female sex, previous trauma, repetitive falls, genetic factors, prior musculoskeletal diseases and endocrine or metabolic disorders and frequent squatting and kneeling. The cardinal pathological feature of Osteoarthritis is a progressive loss of articular cartilage. The pathological changes occur in the synovial joint in which all the tissues are affected i.e. subchondral bone, synovium, meniscus, ligaments and supporting neuromuscular apparatus as well as cartilage.

In Ayurvedic point of view the increased morbidity of the disease are regulated by many treatment principles. Samshodhna and samshamana chikitsa includes antaparimarjana and bahiparimarjana chikitsa. The common treatment has been explained by Acharya Charaka. Later other authors described about the specific treatment of the disease. Snehana, svedana, mardana, upanaha, agnikarma and bandhana³ are the specific line of treatments.

METHODOLOGY

Objective Of Study:

To evaluate the therapeutic effect of Yogottama gutika in patients suffering from Janusandhigata Vata

Source of Data :

20 patients suffering from Janusandhigata Vata irrespective of sex and caste were selected from IPD/OPD of SDM Ayurveda Hospital, Udupi.

Method of collection:

A special Proforma was prepared with all points of history taking, physical signs and symptoms as mentioned in Ayurvedic texts and laboratory investigations were carried out as mentioned in Allied sciences. Accordingly, patients were selected and were subjected to detailed clinical history and complete examination.

Study design:

It was an open clinical study with pre-test and post test design. Investigations and the parameters of signs and symptoms were scored on the basis of standard method and was analyzed statistically.

Intervention:

- Yogottama gutika - 8 tablets each of 500 mg was administered thrice a day in empty stomach with the anupana of Ushnajala for 14 days.
- Follow up: 14 days after treatment.

DIAGNOSTIC CRITERIA

- Patient presenting with symptoms diagnostic of Janusandhigata Vata – janusandhigata soola, sophha and stabdhatha.

INCLUSION CRITERIA:

- Patients diagnosed as Janusandhigata Vata fulfilling the diagnostic criteria of Osteoarthritis of knee
- Age group between 40 to 70 years were selected.

EXCLUSION CRITERIA:

- Age group above 70 and below 40 years.
- Patients with Tuberculosis, Rheumatoid Arthritis, Systemic Lupus Erythematosus, Psoriatic Arthritis, Gouty Arthritis.

ASSESSMENT CRITERIA:

- Signs and symptoms of Janusandhigata Vata and Osteoarthritis were evaluated before and after treatment on 14th and 28th day. Subjective and objective analysis was done.
- Pain - Visual Analogue Scale(VAS)
- Swelling- girth of joint is measured with tape.
- Movement of joints- measurement is done with Goniometer.
- WOMAC- Index for Osteoarthritis
- Functional ability :-
 - Walking - time required to cover 30 meters in seconds.
 - 10 sit -ups time required in seconds.
 - Time taken to climb 10 steps

INVESTIGATIONS:

- Haematological investigations –
 - Hemoglobin %

- Total leukocyte count
- Differential leukocyte count
- Erythrocyte sedimentation rate
- Radiological Investigations:
 - X-ray : AP & Lateral view of knee(if available)

Observation: As per observation, maximum number of patients belonged to the age group 61 to 70 years (50%), 80% were female, house wives 65%. and were Hindus (75%). Majority of the patients were married (95%) and were from primary educated group (35%). In the present study 70% of the patients has tea/coffee habit. As this study showed maximum number of patients 60% had taken vishamashana and were of Vatapitta Prakruti that is 60% and all 100% had madhyama sara, satmya and samhanana, 90% had madhyama satva. 80% of the patients had madhyama ahara Shakti and 55% had Madhyam vyayama Shakti. All the patients selected in the study were under Madhyama vaya (50%) and vriddha vaya (50%). All the patients had gradual onset 100%. X-ray reports suggested that 100% of patients had osteophytes. Majority of the patients had WOMAC score between 50-75.

RESULT: Yogottama Gutika showed improvement on Pain (48%) in right and (64%) in left knee joint, Stiffness (74%) in right and (75%) in left knee joint, Swelling (50%) in right and (20%) in left knee joint, Tenderness (52%) in right and (69%) in left knee joint, Range of movement (70%) in right and (50%) in left knee, 30M walk (41%), 10 situps (33%), climbing 10 steps (35%) and WOMAC SCORE (47%) with p value < 0.001. [Table No; 1 & 2]

DISCUSSION:

In the present study, 20 patients were selected suffering from Janusandhigatavata. The diagnostic criteria considered were sandhishoola, sandhishotha, prasaranaakunjanayo apravriti ase these were the cardinal features which were presented by the patients. Patients fulfilling the diagnostic criteria according to pratyatma lakshana of sandhigata vata were considered. Patients between 40 to 70 years were selected as the disease is manifested in sampurna and parihani stage of madhyamavastha and vardhakya avastha. Other. Patients were observed to record the changes in symptoms and the objective criteria. Patients were treated with 8 tablets of Yogottama gutika in TID dose for 14 days. After the treatment of 14 days patients were further followed for 2 weeks to identify if the treatment in the study has produced any ill effects or worsened the disease.

Paired 't' test and wilcoxon signed rank tests were done for the statistical analysis as the study consisted of 20 patients. For the assessment WOMAC index of Osteoarthritis, Visual analogues scale (VAS), Goniometry and functional ability test were performed as standard parameters.

Mode of Action: Yogottama gutika a shaman aushadi was selected for the present study, overall consisting of 27 drugs. They are gajapippali, musta, daruharidra, vidanga, guggulu, pippali, hareetaki, shringi, taleesapatra, pushkaramoola, chavya, amlaki, maricha, vibheetaki, nagakeshara, chitraka, haridra, ela, ajamoda, saindava lavana, yavakshara, sarja kshara, shilajatu and yoraja.

Predominantly in this gutika maximum drugs had katu, tikta ,kashaya rasa. Laghu, rooksha, teeksha as its guna with ushna veerya and katu vipaka. While looking into the karma of the drugs most of them had vatakaphahara property. Yogottama gutika could show its result in the criterias like pain, swelling, tenderness and so on due to its shula and shothahara property. The drugs like amalaki, musta, hareetaki, shilajatu, pippali possessed rasayana property.

CONCLUSION:

Yogottama Gutika showed highly significant result with P value (<0.001) in most of the subjective and objective criteria's. Overall effect of Yogottama Gutika showed Mild remission in 20%, Moderate remission in 25%, Marked remission in 30% and Good remission in 25%. No patient showed Worsening or Complete remission.

Table no.1- Showing the Statistical Results of Objective Criteria's

| SYMPTOMS | n | MEAN | | SD | | t - VALUE | % of improvement | P - VALUE |
|----------------|----|--------|--------|--------|--------|-----------|------------------|-----------|
| | | BT | AT | BT | AT | | | |
| PAIN - RT | 20 | 6.100 | 3.200 | 1.804 | 1.240 | 12.704 | 48% | <0.001 |
| PAIN - LT | 20 | 4.400 | 1.600 | 2.415 | 1.095 | 7.945 | 64% | <0.001 |
| SWELLING - RT | 20 | 42.685 | 40.730 | 3.355 | 2.722 | 7.027 | 50% | <0.001 |
| SWELLING - LT | 20 | 38.120 | 37.36 | 9.217 | 8.994 | 3.151 | 20% | <0.001 |
| ROM - RT | 20 | 119.50 | 127.30 | 7.536 | 6.233 | -6.476 | 70% | <0.001 |
| ROM - LT | 20 | 120.00 | 125.70 | 29.919 | 30.229 | -4.686 | 50% | <0.001 |
| 30M WALK | 20 | 0.638 | 0.376 | 0.0873 | 0.0475 | 4.888 | 41% | <0.001 |
| 10 SITS UP | 20 | 3.290 | 2.192 | 0.289 | 0.184 | 7.535 | 33% | <0.001 |
| CLIMB 10 STEPS | 20 | 2.271 | 1.484 | 1.165 | 0.854 | 7.122 | 35% | <0.001 |
| WOMAC SCORE | 20 | 44.800 | 23.15 | 1.828 | 0.960 | 13.545 | 47% | <0.001 |

Table no.2- Showing the Statistical Results of Subjective Criteria's

| SYMPTOMS | n | MEAN | | SD | | % of improvement | Z - VALUE | P - VALUE |
|------------------------|----|-------|-------|-------|-------|------------------|-----------|-----------|
| | | BT | AT | BT | AT | | | |
| MORNING STIFFNESS – RT | 20 | 1.100 | 0.700 | 0.553 | 0.503 | 74% | -3.655 | <0.001 |
| MORNING STIFFNESS – LT | 20 | 1.000 | 0.250 | 0.649 | 0.444 | 75% | -3.638 | <0.001 |
| TENDERNESS- RT | 20 | 2.200 | 1.050 | 0.951 | 0.605 | 52% | -3.758 | <0.001 |
| TENDERNESS – LT | 20 | 1.600 | 0.500 | 1.046 | 0.607 | 69% | -3.397 | <0.001 |

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