

## A CLINICAL STUDY TO EVALUATE THE THERAPEUTIC EFFECT OF SAMASHARKARA GUGGULU IN GRIDHRASI W.S.R TO SCIATICA

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### ABSTRACT

**Objective:** To evaluate the therapeutic effect of *Samasharkara Guggulu in Gridhrasi* with special reference to sciatica. **Method:** Interventional and non randomized open labelled single study with pre and post test design. 30 patients diagnosed as *Gridhrasi/Sciatica* fulfilling the diagnostic/ inclusion and exclusion criteria were taken for study from OPD and IPD of *Shri Dharmastala manjunatheshwara Ayurveda Hospital*, Udupi, Karnataka. The oral medication *samasharkara Guggulu* given 3g TID. Medicines of *Samasharkara guggulu* was obtained from *Shri Dharmasthala manjunatheshwara Ayurveda Pharmacy Kuthpady*, Udupi.

**KEYWORDS:** Gridhrasi, ruja, sciatica.

### INTRODUCTION

*Gridhrasi* is mentioned as a condition which has the classical symptoms of *Vata Dosha*, with *Shoola* as its *Pradhana Lakshana* and *Sakthi Utshepa Nigraha*<sup>[1]</sup> which is typical of sciatica syndrome features, and its confirmatory test of SLR. Patients with sciatica suffers from low back ache which radiates to any one limb or both the limbs. The line of management depends upon the *Nidana*. *Atyadhva Atiyana*, *Vyayama*, *Vyavaya*, *Dhavana*, *Pidana*, *Bharavanana* are some of the causative factors for this disease. *Vataja Gridhrasi* is characterized by the symptoms like *Stambha*(stiffness), *Ruk*(pain), *Toda* (pricking sensation) and *Muhurspandana*(twitching), while *vatakaphaja Gridhrasi* has features of *Tandra*(drowsiness), *Gaurav* (heaviness in legs) and *Arochaka*(tastelessness) along with the above symptoms.

In the practice of conventional medicine, the treatment of Sciatica is limited to analgesics, anti-inflammatory drugs, physiotherapy as well as surgical intervention in extreme cases. Matchless to the cost of these treatments the response is never complete. In addition to this relapse of the illness greatly enhance the gravity of the problem. On the other hand, *Gridhrasi* is enlisted as one among the *Vatavyadhi* in *Ayurveda*. Various treatment modalities like *Snehana*, *Swedana*, *Virechana*, *Basti* etc are said to be efficacious. Even specific treatments like *Siravyadha*, *Agnikarma*, *Basti* are also emphasised. Many *Shamana yoga* are mentioned in our classics which are proved to be efficacious. *Guggulu* is the best among the *Shamana Aoushadies* for vitiated *Vata*. In *Vatavyadhi*, in most of the occasions the use of *Guggulu* is mentioned for the purpose of *vatashamaka* as well as *Shulahara*. The *Guggulu yoga* is mentioned in many contexts of *Vatavyadhi chikitsa*.

## METHDOLOGY

### Objectives of the study

1. A Clinical study to evaluate the therapeutic effect of *samasharkara guggulu* in *Gridhrasi/Sciatica*.

### Source of data

Minimum 30 patients diagnosed as *Gridhrasi/Sciatica* fulfilling the diagnostic/ inclusion and exclusion criteria will be taken for study from OPD and IPD of *Shri Dharmastala manjunatheshwara Ayurveda Hospital*, Udupi, Karnataka. The oral medication *samasharkara Guggulu* given 3g TID. Medicines of *Samasharara guggullu* will be obtained from *Shri Dharmasthala manjunatheshwara Ayurveda Pharmacy Kuthpady*, Udupi.

### Method of collection of data

A special proforma will be prepared incorporating all the clinical manifestation and assessment criteria including laboratory investigation findings of the *Gridhrasi /Sciatica*. Complete data including detailed clinical history and complete physical examination will be collected from all the selected patients as per this proforma.

### Design of the study

1. It is a single clinical study with pre and post-test design.
2. A minimum 30 patients suffering from *Gridhrasi* will be selected irrespective of their sex, creed, caste and gender.
3. The parameters of signs and symptoms along with investigations will be scored on the

basis of standard method and will be analysed statistically using paired T test and Wilcoxon's method.

## INTERVENTION

The patients selected were administered with Samasharkara Guggulu. DOSAGE: 3g TID  
Anupana- *ushna jala* Duration of study: 21days. Follow up period- 14days Administration-  
After food.

### a) Diagnostic criteria

Symptoms of *vataja Gridhrasi* like radiating pain which radiates from back of thigh, leg and foot stiffness, pricking sensation, twitching in buttocks. And *vatakaphaja gridhrasi* like heaviness of the legs, drowsiness and tastelessness. Patient suffering from low back ache with radiating pain towards the lower limb.

### b) Inclusion Criteria

1. Patients having low back ache with radiation.
2. Patients having sciatica with mild to moderate osteoporotic changes in lumbosacral spine where surgical interventions are absolutely not necessary and medical management is suggested.
3. Patients with or without radiological evidence-MRI, CT of disc prolapses.
4. Patients with or without radiological evidence-MRI, CT of lumbar spondylosis.
5. Patient between the age group of 20-60 years and of either sex.

### c) Exclusion criteria

Deformities and congenital defects of spine. Tuberculosis of spine  
Neoplasm of spine  
Pregnancy and lactating mother Fracture of lumbosacral vertebrae.

### d) Assessment Criteria

#### Primary outcome measures

*Pain (Ruk)* – Visual analogue scale.<sup>[14]</sup>

*Stiffness (Sthambha) Pricking type of pain (Toda)*

Functional Ability- Sugar baker & Barofsky Clinical Mobility Scale.<sup>[15]</sup>

Functional disability – Oswestry Disability assessment questionnaire.<sup>[16]</sup>

**OBSERVATION**

Among the 7% patients, belonged to age group of 21-30. 10% of patients in 31-40 years. Followed by 6 % in 41-50 and 12 % of patients in 51-60 years of age. In 61-70 years, age group % of patients.

Out of 30 patients, 43% were male's 57 % were females.

Out of 30 patients, 83% of the patient belonged to hindu religion 14% of patients belonged to Christianity and 3% to to Muslim community Educational status: Majority of patients comprising 21% in this study had completed their Higher secondary education followed by Primary school education 25% and contributing Junior college 14%. This reflects the overall educational status of the society. Educational qualification and work are related. Both the group of population which had manual labor as well as sedentary office job has sciatica syndrome.

79% of patients were married compared to 18% of unmarried individuals in the sample. 7% were divorced.

About 54 % of the patients belonged to middle class. 33% were from lower middle class, 10% were from upper middle class and 10 % hailed from poor socioeconomic status.

Maximum number of patients were Employees i.e., 48 %. Students were 7%. Homemakers with 17%. Buisness men with 14% and manual worker with 10%.

Out of 30 patients, only 38 % of the patients were restricted to vegetarian diet, and the remaining 62 % of the patients had the habit of taking mixed diet.

Assesment about addiction shows that 60% of the patients had addiction od consuming alcohol. Nature of Sleep: Out of the 30 patients, maximum of 47% of the patients had disturbed sleep 20% had ratri jagarana. This indicates the severity of the illness the study population is experiencing. Ratrijagarana has been mentioned as a causative factor for vatavyadhi.

Analysis of the *Prakruti* reveals that Majority of Patients belonged to *Vatapitta Prakruti* i.e., 47 % and 7 % belonged to *Vatakapha Prakruti*, 13% belonged to *Pittakapha Prakruti*. This observation supports the susceptibility of persons with *Vata as Prakruti* to develop *Vataja* disorders like *Gridhrasi*, which is accordingly to the general principles laid in the literature.

Analysis of the symptoms revealed that 67% patients exhibited *Kevala Vataja Gridhrasi*, and 33 % patients had *vata-kaphaja* type of *Gridhrasi*.

## RESULT

On assessment of pain with Greenough and fraser scoring method, the mean score was 38.167 which increased to 47.267 on 21 days. Neurological deficit was assessed with Herron and turners rating. Which revealed that the mean value before the treatment 26.967 which was increased decreased to 14.267. The statistical analysis showed,  $t=5.181$  and  $p<0.001$  which is statistically significant. Functional ability was assessed with sugar baker and barofsky clinical mobility scale that showed the mean value of functional ability before the treatment was 15.667 which was increased to 20.533. The statistical analysis showed,  $t =$  and  $p<0.001$  which is statistically significant. Functional disability assessed according to Oswestry disability assessment questionnaire with the range of 0-5 with higher value indicating more pain. The mean value of functional disability before the treatment was 12.400 which was increased to 6.167. The statistical analysis showed,  $t =$  and  $p<0.001$  which is statistically significant.

| Effect of treatment On:                        | Bt Mean | AT % Of Improvement | Mean |
|--|---------|---------------------|------|
| <input type="checkbox"/> Pain                  | 38.16   | 47.26               | 23   |
| <input type="checkbox"/> Neurological Deficit  | 26.96   | 14.26               | 52   |
| <input type="checkbox"/> Functional Ability    | 15.66   | 20.53               | 23   |
| <input type="checkbox"/> Functional Disability | 12.4    | 6.16                | 51   |
| <input type="checkbox"/> Slr                   | 43      | 62                  | 44   |
| <input type="checkbox"/> Sthambha              | 1.3     | 0.33                | 74   |
| <input type="checkbox"/> Toda                  | 1.13    | 0.50                | 55   |
| <input type="checkbox"/> Spandana              | 0.700   | 0.20                | 71   |
| <input type="checkbox"/> Aruchi                | 0.300   | 0.100               | 66   |
| <input type="checkbox"/> Tandra                | 0.367   | 0.267               | 27   |
| <input type="checkbox"/> Gaurava               | 0.651   | 0.850               | 34   |

## PROBABLE MODE OF ACTION

*Gridhrasi* is one of the *vata vyadhi* which presents with severe pain and radiation where *vata* plays a major role. *Samasharkara guggulu* mentioned in *Bhava prakasha* 29<sup>th</sup> *adhikara*, alleviates the condition due to its ingredients with *Kashaya rasa* and the *prakshepaka dravyas* like *Haritaki*, *vibhitaki*, *Amalaki*. As these drugs are *tridosha hara* and especially *vata kapha hara*. *Guggulu* which is the main ingredient is *kaphavata hara* and has anti-inflammatory property and is analgesic due to its *ushna virya* and is mentioned as *vedana sthapana*. As *Sanga* and *margavarodha* type of *srotodushti* is found in *gridhrasi*, *sanga* of dosha produces *stabdhata*, *gaurava*, *sphurana*. *Margavarodha* leads to *toda* and *ruk*. *Aruchi*, *Tandra* and

*Gaurava* in addition to the *Vataja* symptoms. Along with *Vata Prakopaka Nidana*, *Kapha Prakopaka Nidana* gives rise to *Agnimandya*, which leads to accumulation of *Ama*. This condition also affects the *Agni* of *Rasa Dhatu*, resulting in the production of *Kapha abundantly* as it is *Mala* of *Rasa dhatu*. This yoga helps in reducing the *margavarana* and also *dhatu kshaya* by reducing the symptoms. As in this study the subjects have shown good response in remission of symptoms like neurological deficit and functional disability. This proves that *Samasharkara Guggulu* helps in pacify the condition caused due to *margavarana* or *dhatukshaya*.

## DISCUSSION

Minimum 30 patients diagnosed as Gridhrasi/Sciatica fulfilling the diagnostic/ inclusion and exclusion criteria was taken for study from OPD and IPD of Shri Dharmastala manjunatheshwara Ayurveda Hospital, Udupi, Karnataka. The oral medication samasharkara Guggulu was given 3g TID. It is a single clinical study with pre and post-test design. The parameters of signs and symptoms along with investigations was scored on the basis of standard method and was analyzed statistically using paired T test and Wilcoxon's method. The medicines were given for 21 days and assessed during the follow up. These findings were graded with the Assessment of Pain (Greenough and Fraser scoring method), Assessment of Neurological Deficit, Assessment of Functional Ability (Sugarbaker and Barofsky Clinical Mobility scale), Functional Disability (Oswestry Disability assessment Questionnaire).

## CONCLUSION

Samasharkara guggulu showed significant result with p value ( $<0.001$ ) in most of the subjective and objective criteria. Overall effect of the yoga is analysed in the condition of Gridhrasi or sciatica.

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