



# AN OPEN RANDOMIZED COMPARATIVE CLINICAL STUDY ON THE EFFECT OF VATARI GUGGULU AND VISHWADI GUGGULU IN THE MANAGEMENT OF GRIDHRASI.

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## ABSTRACT

**Background:** *Gridhrasi* is a *Vataja nanathmaja vyadhi* that affects the hip and the lower limbs. Life time incidence of low back pain is said to be 50-70% with the incidence of *Sciatica* more than 40%. *Shamana aushadhi* is mentioned as one of the main line of treatment for *Gridhrasi*. The present study is intended to evaluate the effectiveness of *Vatari Guggulu* and *Vishwadi Guggulu* oral medication in management of *Gridhrasi*. **Objectives of the Study:** To make a comprehensive literary study of *Gridhrasi*. To evaluate the therapeutic efficacy of *Vatari Guggulu* in bringing symptomatic relief in patients of *Gridhrasi*. To evaluate the therapeutic effect of *Vishwadi guggulu* bringing symptomatic relief in patients of *Gridhrasi*. To evaluate the comparative therapeutic effect of *vatari guggulu* and *vishwadi guggulu*. **Methodology:** Among 60 registered patients 60 of them completed the course of treatment They were administered with *Vatari Guggulu* 1gram thrice daily with Warm water as anupana orally after food for 30 patients and *Vishawadi Guggulu* 1gram thrice daily with Warm water as anupana orally after food for 30 patients for a period of 30 days. For statistical analysis subjective parameters were assessed by with unpaired t test . **Results:** In the parameters of Comparative analysis of the overall effect of the treatments in both the groups was done by statistically with unpaired t test. The test shows that the treatment is equally significant in Group B when compared to Group A. Group A overall result is 69.66% and Group B overall result is 74.06%. **Conclusion:** The test shows that the treatment is equally significant in *Vishwadi Guggulu* when compared to *Vatari guggulu*.

**Keywords:** *Gridhrasi*, *Sciatica*, *Vatari Guggulu*, *Vishawadi Guggulu*.

## INTRODUCTION :

Today's lifestyle and nature of work are an added tension on the usual health. The aggravating factors, such as over exertion, sedentary occupation, jerky movements during travelling, and lifting, create mental stress, which leads to low backache. One of the main causes of low backache is the intervertebral disc prolapsed (IVDP)<sup>1</sup>. The IVDP means the protrusion from the nucleus pulposus of vertebrae through a rent within the annulus fibrosus<sup>2</sup>. In 95% of the lumbar disc herniation, L4-L5 and L5-S1 discs are most commonly affected<sup>3</sup>. In IVDP, the pain may be located in the low back only or referred to a leg, buttock, or hip, which outline the features of sciatica-

syndrome. Sciatica is a strike pain, which causes difficulty in walking. It hampers the daily routine and deteriorates quality life of patient<sup>4</sup>. The prevalence of sciatica varies considerably ranging from 3.8% in the working population to 7.9% in nonworking population<sup>5</sup>. It is most prevalent in people during their 40s and 50s and men are more commonly affected than women. Low back pain has been enumerated as fifth most common cause for hospitalization and the third most frequent reason for a surgical procedure<sup>5</sup>.

The signs and symptoms of "Sciatica" found in modern medicine are quietly mimic with the condition of *Gridhrasi* mentioned in Ayurveda. *Gridhrasi* comes under *Nanatanja Vata vyadhi*<sup>7</sup>. *Gridhrasi*, the name itself indicates the way of gait shown by the patient due to extreme pain, that is, *Gridha* or Vulture. The cardinal signs and symptoms of *Gridhrasi* are *Ruk* (pain), *Toda* (pricking sensation), *Muhuspandan* (Tingling sensation), *Stambha* (stiffness) in the *Sphik*, *Kati*, *Uru*, *Janu*, *Jangha*, and *Pada*<sup>8</sup> in order and *Sakthikshepanigraha* (i.e., restriction in upward lifting of lower limbs)<sup>9</sup>. In *Gridhrasi*, *Tandra* (Drowsiness), *Gaurava* (Heaviness), and *Aruchi* (Anorexia) may be present if *Kapha* is associated with *Vata*<sup>10</sup>.

The management provided by the contemporary medicine for this condition is either conservative or surgical in nature<sup>11</sup>. By taking into consideration, more prevalence rate of *Gridhrasi* and to overcome the above expensive therapeutics; there is great need to find out effective management of *Gridhrasi*. Here the study tries to find out the comparative effect of *Vatari guggulu* and *Vishwadi guggulu* when administered orally in the management of *Gridhrasi*.

**AIMS AND OBJECTIVES:** To evaluate the comparative therapeutic effect of *vatari guggulu* and *vishwadi guggulu* in the management of *gridhrasi*.

## MATERIAL AND METHODS :

A minimum of 60 patients fulfilling the diagnostic and inclusion criteria of either gender was selected for the clinical study. They were randomly assigned in to two groups A and B with 30 patients each.

## INCLUSION CRITERIA:

The patients were taken for the present study as per the following inclusion criteria.

1. Patients with *Pratyatma lakshana of Gridhrasi*.
2. Patients between the age group of 16 to 60 years.
3. Patients having positive physical signs of radicular pain/ Sciatica

## EXCLUSIVE CRITERIA:

1. Neoplastic conditions of spine.
2. Trauma of spine.
3. Infections of spine.
4. Pregnant and lactating Women .

## DIAGNOSTIC CRITERIA:

Clinical diagnosis of *Gridrasi*, based on typical history and clinical presentation of progressive pain, stiffness.

And Positive SLR test in the affected leg.

## ASSESSMENT CRITERIA:

*Stambha, Ruk, Toda, Spandana, Aruchi, Tandra, Gaurava* .

## INTERVENTION:

The patient selected will be randomly divided into 2 groups of 30 each by adapting the permuted block randomization method.

**Group A:** Recruited subjects will be treated with oral administration of Vatari guggulu 1 gram Thrice a day with warm water as anupana for the duration of 30 days

**Group B:** Recruited subjects will be treated with oral administration of Vishwadhi guggulu 1 gram Thrice a day with warm water as anupana for the duration of 30 days

## DURATION OF THE STUDY:

**Group A:** The study includes 30 days of medication with Vatari guggulu followed by another 30 days of follow up period. Total duration of study 60 days.

**Group B:** The study includes 30 days of oral intake of Vishwadhi guggulu followed by another 30 days of follow up period. Total duration of study 60 days.

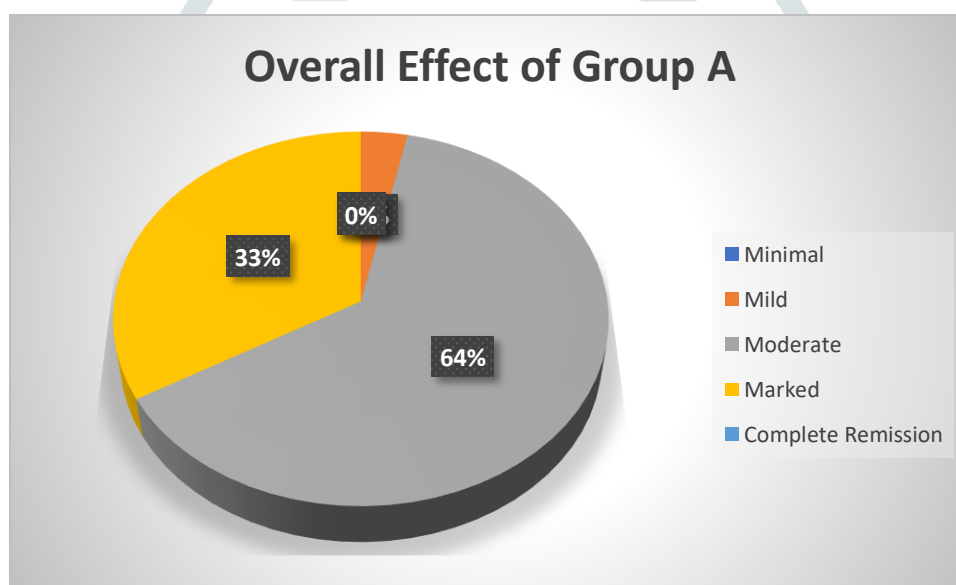
**FOLLOW UP:** 30 days after treatment

## OBSERVATION AND RESULTS:

In this study 60 patients were enrolled, majority of the patients were in age Group 51-60 years. They were 36.67%. Group wise division: They were 43.33% and 30% respectively in A and B Group. Sex wise: Out of 60 patients in group A and Group B, maximum patients were female 37. They were 61.67%. Group wise division: They were 63.33% and 60% respectively in A and B Group. Maximum patients **Occupation** were Housewife (36.67%). Group wise division: In, Group A, they were 33.33% and in Group B they were 40%. **Economic Status** were Middle Class (55%). Group wise division: In, Group A, they were 60% and in Group B they were 50%. **Education** wise Degree (33.33%). Group wise division: In, Group A, they were 33.33% and in Group B they were 33.33%. Patients **Diet** were Mixed (86.67%). Group wise division: In, Group A, they were 80% and in Group B they were 93.33%. Maximum patients **Marital Status** were Married (90%). Group wise division: In, Group A, they were 90% and in Group B they were 46.67%. **Chronicity** were 1 Year and above (68.33%). Group wise division: In, Group A, they were 76.67% and in Group B they were 90%. Out of total 60 patients in Group A and Group B, maximum patients **Affected Side** were Both (76.67%). Group wise division: In, Group A, they were 70% and in Group B they were 83.33%.

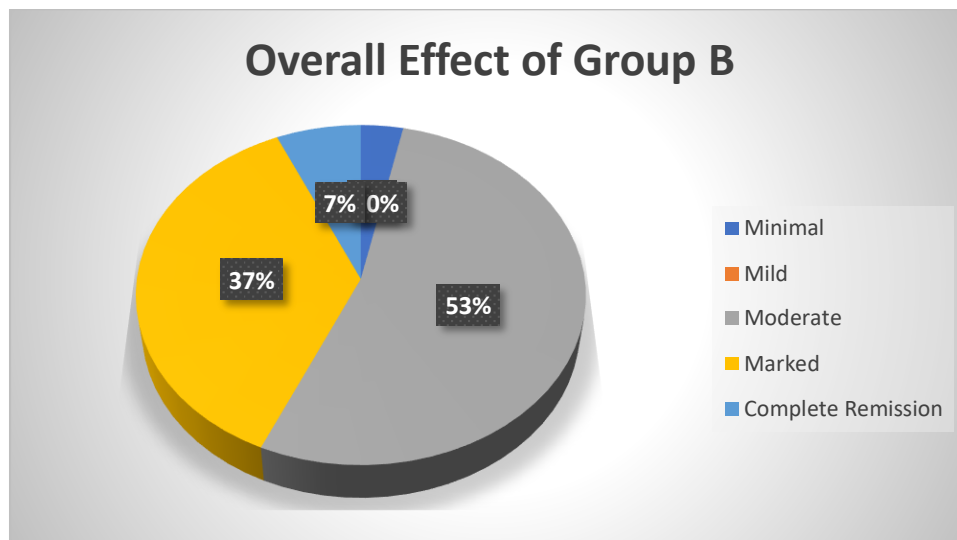
**RESULTS:****Table No 1- Overall effect of VATARI GUGGULU- Group-A**

<b>EFFECT OF TREATMENT IN GROUP - A</b>		
<b>Class</b>	<b>Grading</b>	<b>No of patients</b>
0-25%	Minimal	0
26%-50%	Mild	1
51% - 75%	Moderate	19
76% - 99%	Marked	10
100%	Complete Remission	0

**Result on Group A****Table No. 2 Overall effect of VISHWADI GUGGULU- Group-B**

<b>EFFECT OF TREATMENT IN GROUP - B</b>		
<b>Class</b>	<b>Grading</b>	<b>No of patients</b>
0-25%	Minimal	1
26%-30%	Mild	0
51% - 75%	Moderate	16
76% - 99%	Marked	11
100%	Complete Remission	2

**Result on Group B**



**Table No.3- Comparative results of Group-A and Group-B**

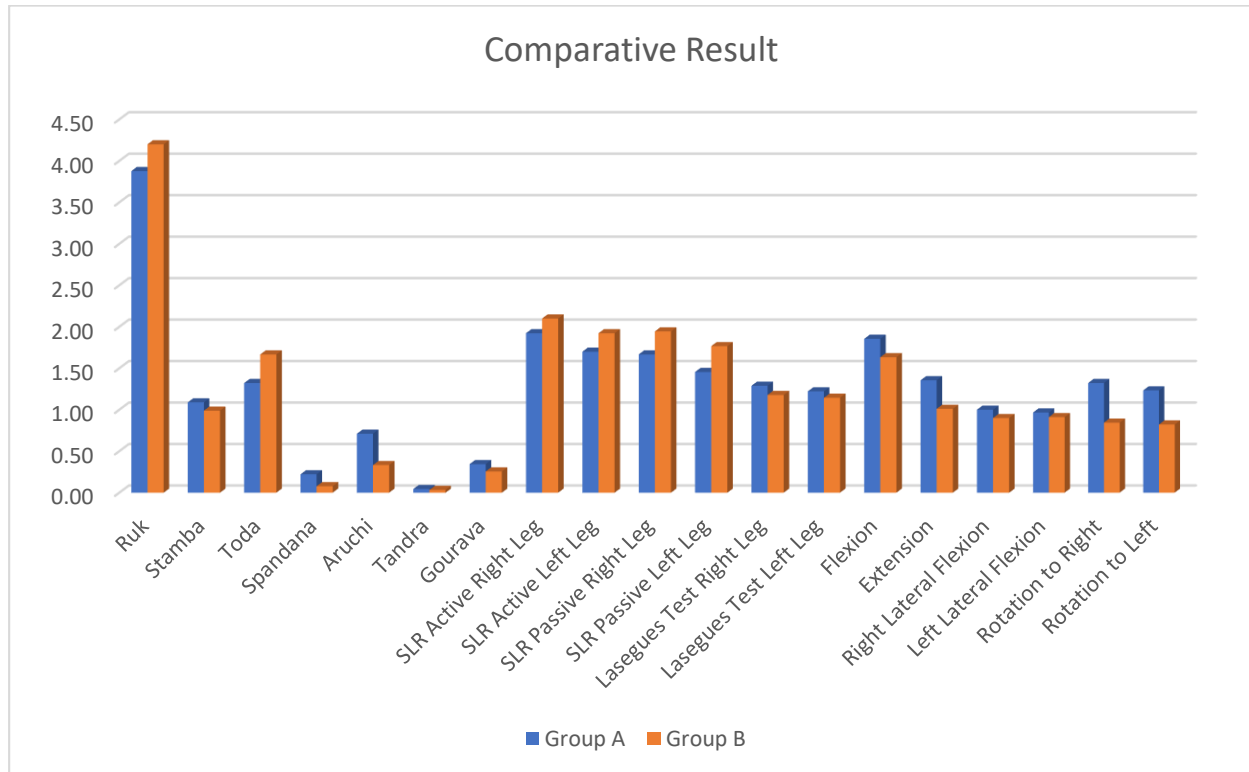
Signs and Symptoms	Group A (Mean Score)	Group B (Mean Score)	SD	SE	T Value	P Value
Ruk	3.88	4.20	0.953	0.177	1.86	<0.05
Stamba	1.09	0.99	1.266	0.235	0.46	>0.05
Toda	1.32	1.67	0.957	0.178	1.95	<0.05
Spandana	0.22	0.08	0.335	0.062	2.41	<0.05
Aruchi	0.71	0.33	1.012	0.188	1.84	<0.05
Tandra	0.04	0.03	0.163	0.030	0.40	>0.05
Gourava	0.34	0.26	0.918	0.170	0.53	>0.05
SLR Active Right Leg	1.92	2.10	0.682	0.127	1.39	>0.05
SLR Active Left Leg	1.70	1.92	0.972	0.181	1.17	>0.05
SLR Passive Right Leg	1.67	1.94	0.979	0.182	1.38	>0.05
SLR Passive Left Leg	1.46	1.77	0.681	0.126	1.33	>0.05
Lasegues Test Right Leg	1.29	1.18	0.804	0.149	0.74	>0.05
Lasegues Test Left Leg	1.22	1.14	0.820	0.152	0.50	>0.05
Flexion	1.86	1.63	0.651	0.121	1.86	<0.05
Extension	1.36	1.01	0.681	0.126	2.66	<0.05
Right Lateral Flexion	1.00	0.90	0.764	0.142	0.67	>0.05
Left Lateral Flexion	0.97	0.91	0.840	0.156	0.35	>0.05
Rotation to Right	1.32	0.84	0.937	0.174	2.87	<0.05
Rotation to Left	1.23	0.82	0.933	0.173	2.37	<0.05

Group A	Group B	Mean Difference	SE (±)	T value	P value
69.66	74.06	4.40	3.50	1.23	>0.05

**Table no 4- Comparative results of Group A and Group B**

Comparative analysis of the overall effect of the treatments in both the groups was done by statistically with unpaired t test. The test shows that the treatment is equally significant in Group B when compared to Group A. Group A overall result is 69.66% and Group B overall result is 74.06%.

**Chart Comparative results of Group-A and Group-B**



## DISCUSSION

### Discussion on comparison of *Gridhrasi* :

*Gridhrasi* is a *Vyadhi* that is caused by the vitiated *Vata* or *Kapha*. *Vataprakopaka lakshanas* like *Ruk*, *Toda*, *Stambha* are the cardinal symptoms in the disease. *Gridhrasi* is one among the 80 *Vataja Nanatmaja Vyadhi*. In this condition pain starts from *Sphik* and gradually radiates to *kati*, *Pristha*, *Uru*, *Janu*, *Jangha* and *Padha*, and associated with stiffness, distress, piercing pain and also twitching sensation frequently. These symptoms are of *Vata* but when the disorder is caused by *Vata* and *Kapha* it is associated with *Tandra*, *Gaurava* and *Arochaka*. Due to the severity of pain causes the limitation in day to day activities. In *Gridhrasi*, due to *vataprakopaka aaharavihara*, *vata* gets vitiated, and decreased *sleshma* in *kati-pristha* the *sthana samshraya* takes place in *sphika*, *kati*, *pristha* affecting the leg. There is *Ruk*, *Toda*, *Stambha*, in waist and hip and back of the thigh, knee, calf and foot respectively. When the *Kandara* are afflicted by vitiated *Vata*, movements of the lower extremity get restricted, that is known as *Gridhrasi*.

## THERAPEUTIC EFFECT OF MEDICATION

The assessment of results was made by adapting the standard methods of international scoring techniques and the Pratyatma Lakshana of *Gridhrasi*. It included the assessment of Pain (VAS scale) with signs and symptoms as per the classics of Ayurveda, such as *Stambha*, *Ruk*, *Toda*, *Grahana*, *Spandana*, *Aruchi*, *Gaurava*, and *Tandra*. **Effect on Stambha:** The therapeutic effect on *Ruk* was statistically significant in both Groups A and B shows 75.00% improvement in both the groups respectively. **Effect on severity of Ruk:** The therapeutic effect on *Ruk* was

statistically significant in both Groups A and B shows 74.00% improvement and 73.33% of improvement in both the groups respectively. **Effect on Toda:** Magnitude of **Toda** in patients of *Gridhrasi* before and after the treatment was assessed and analyzed statistically in group A 78.08% improvement and in group B 70.89% of improvement of from **Toda**. **Effect on Spandana:** The mean severity of Spandana was markedly reduced in all the groups which were statistically significant in both Groups A and B shows 94.12% improvement and 100% of improvement in both the groups respectively. **Effect on Aruchi:** The therapeutic effect on Aruchi was statistically significant in both Groups A and B shows 76.92% improvement and 66.67% of improvement in both the groups respectively. **Effect on Tandra:** The therapeutic effect on Tandra was statistically significant in both Groups A and B shows 100% of improvement in both the groups respectively. **Effect on Gaurava:** Magnitude of gaurava in patients of *Gridhrasi* before and after the treatment was assessed and analyzed statistically in group A 80.95% improvement and in group B 54.55% of improvement of from Gaurava.

**Mode of action of Vatari Guggulu:** From the *Rasa Panchakas* of *Vatari Guggulu*, it is observed that, most the drugs are having *katu rasa*, *ushna guna* and *veerya* and *katu vipaka*. *Vatari guggulu* does *ama pachana* by its *laghu,ruksha* and *tikshna guna*, *ushnaviryra* and *katu vipaka* possesses *vata kapha shamaka karma*. *Eranda* reduces *apana vata dusti* which is present in *kati pradasha* by its *Sukshma ,teekshana* and *laghu guna*, and its *vata anuloma* property . Since its indicated directly in *vata* and *kapha samskrusta dosha* . And due to its *samskarasya anuvartana* property by adding other ingredients in *Vatari guggulu* it reduces *ruk , toda and sthamba*.

**Mode of action of Vishwadi Guggulu:** From the *Rasa Panchakas* of *Vishwadi Guggulu*, it is observed that, most the drugs are having *katu rasa*, *ushna guna* and *veerya* and *katu vipaka*. *Vatari guggulu* does *ama pachana* by its *laghu,ruksha* and *tikshna guna*, *ushnaviryra* and *katu vipaka* possesses *vata kapha shamaka karma*.

## CONCLUSION

Gridhrasi is one of the Vatavyadhi and is described as a separate clinical entity. The characteristic features are Stambha, Ruk, Toda, Grahana and Spandana in Sphik, Prishtha, Uru, Janu, Jangha and Pada. According to Sushruta Sakthikshepa Nigraha is the cardinal symptom. In Allied Science the disease Gridhrasi can be correlated to Sciatica. A condition where the patient suffers from low back ache which refers to lower limb either unilateral or bilateral. Hence, movement of the affected leg is restricted and patient is not able to walk properly. *Vatari Guggulu* is a Herbo mineral compound with ingredients like *Eranda Taila*, *Shudha Gandhaka*, *Shudha Guggulu*, *Haritaki*, *Vibhitaki*, and *Amalaki* in equal proportions. As the drugs are having *Tridoshaghna* and dominantly *Vatakaphahara* qualities, they help in alleviating both *Vata* and *Kapha Dosha*. *Vishwadi Guggulu* is a Herbo mineral compound with ingredients like *Shunti*, *Pippali*, *Pippali mula*, *Vidanga*, *Devadaru*, *Saindhava*, *Rasna*, *Vahni cheetah*, *Ajwain*, *Maricha*, *Shuddha guggulu*, in equal proportions. As the drugs are having *Tridoshaghna* and dominantly *Vatakaphahara* qualities, they help in alleviating both *Vata* and *Kapha Dosha*. Here in this study *Vatari Guggulu* was given in Group A. The second Group B was tried with *Vishwadi Guggulu*. The study revealed that marked effect on signs and symptoms of *Gridhrasi-Ruk*, *Toda*, *Stamba*, *Gaurava*, *Aruchi* and *Tandra*. The test shows that the treatment is equally significant in *Vishwadi Guggulu* when compared to *Vatari guggulu*.

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