

**A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF  
VISHWADYA GUGGULU WITH RASNA SAPTAKA KASHAYA AND  
TRAYODASHANGA GUGGULU WITH RASNA SAPTAKA KASHAYA IN THE  
MANAGEMENT OF GRIDRASI W.S.R TO SCIATICA****Dr. Bhargavi P.<sup>1\*</sup>, Dr. Vijayalakshmi<sup>2</sup> and Dr. Muralidhara<sup>3</sup>**<sup>1</sup>PG Scholar, Department of Kayachikitsa SKAMCH & RC, Bengaluru.<sup>2</sup>Associate Professor, Department of Kayachikitsa SKAMCH & RC, Bengaluru.<sup>3</sup>Professor, Department of Kayachikitsa SKAMCH & RC, Bengaluru.**\*Corresponding Author: Dr. Bhargavi P.**

PG Scholar, Department of Kayachikitsa SKAMCH &amp; RC, Bengaluru.

Article Received on 23/09/2020

Article Revised on 13/10/2020

Article Accepted on 3/11/2020

**ABSTRACT**

*Gridhrasi* is one of *Vataja Nanatmaja vyadhi*, it is classified as *Vataja* and *Vatakaphaja* based on the involvement of *Dosha. Ruk, Toda, Sthambha, Sakti Kshepa Nigrahana* along with *Aruchi, Gourava* and *Tandra* are the cardinal symptoms. It is said to be *Krichrasadhya* and is a growing global problem because of the lifetime prevalence of the condition. It can be co-related with *Sciatica* also known as *Lumbar Radiculopathy*. The aim of the present study was to find out efficacy of *Vishwadya Guggulu* mentioned in *Bruhat Nighantu Ratnakara* and *Trayodashanga Guggulu* mentioned in *Bhaishajya Ratnavali* along with *Rasna Saptaka Kashaya* mentioned in *Chakradatta* as common drug in both the groups. Total of 40 patients diagnosed with *Gridhrasi* were assigned into two groups with each comprising of 20 subjects. **Group A-** Was given with 24ml of *Rasna Saptaka Kashaya* twice daily before food with hot water as *Anupana* along with *Vishwadya Guggulu* 2tablets (500mg each) twice daily after food for 14days. **Group B-** Was given with 24ml of *Rasna Saptaka Kashaya* twice daily before food with hot water as *Anupana* along with *Trayodashanga Guggulu* 2tablets (500mg each) twice daily after food for 14 days. The statistical analysis after intervention showed statistically highly significant ( $p < 0.001$ ) results, when compared between group and within the group before Treatment to After Treatment and after treatment to at Follow up on all the parameters in both groups.

**KEYWORDS:** *Vishwadya Guggulu, Trayodashanga Guggulu, Rasna Saptaka Kashaya, Gridhrasi, Sciatica.*

*Gridhrasi* is included under 80 *Nanatmaja Vatavyadhi*<sup>[1]</sup> where there is vitiation of *Vatadosha* or *Vatakaphadosha*. The signs and symptoms of the disease are *Sthamba, Ruk, Toda* and *Muhu Spandana* along with *Tandra, Arochaka* and *Gourava*. Patient may also present with *Sakthi Utkshepa Nigraha* and *Dehasya Pravakratha*. In *Gridhrasi*, *Sthanasamshraya* of *Dosha* happens in *Sphik, Kati, Prishtha, Janu, Jangha* and *Pada* thus affecting the *Kandara* of leg. *Apana Vata* and *Vyana Vata* are involved in this condition.

Low back ache is the most common disorder which affects particularly in the most productive period of life i.e. 30 to 60 yrs. 40% of cases comes under *sciatica* otherwise known as *lumbar radiculopathy*, a painful condition chiefly affecting the low back area which radiates downwards to one leg or both legs. *Sciatica* is a syndrome characterized by pain starting in the lumbar region and spreading down the legs up to the foot which is intensified by coughing or sneezing. In severe conditions there may be numbness, muscular weakness,

pins and needles or tingling and difficulty in moving or controlling the leg. More than 10 million cases of *sciatica* have been reported in India per year.<sup>[3]</sup>

According to the National Institute of Arthritis, Musculo-skeletal and Skin diseases; 8 out of 10 people have some type of back ache.<sup>[4]</sup> In about 90% of cases *sciatica* is caused by a herniated disc with nerve root compression, but lumbar stenosis and less often tumours are possible causes.<sup>[5]</sup> In general an estimated 5% - 10% of patients with low back pain have *sciatica*, whereas the reported lifetime prevalence of low back pain ranges from 49% to 70%.<sup>[5]</sup> The annual prevalence of disc related *sciatica* in the general population is estimated at 2.2%.<sup>[5]</sup>

Since *Gridhrasi* is a *Shoola Pradhana Vatavyadhi* intervening with the functional ability of low back and lower limbs, effective medications is important that soothe the severity of the pain and improve functional ability. Sequential administration of *Snehana, Swedana, Basti Karma, Siravyadha, Agnikarma* and

*Shamanoushadis* are the lines of treatment of *Gridhrasi Vyadhi* as expounded in the Ayurveda literature. The treatment principle is to treat the *Vata Dosha*.<sup>[6]</sup> There are various *Shamanoushadis* explained in our classics, *Vishwadya Guggulu* and *Rasna Saptaka Kashaya* is one among them.

CTRI Registration was CTRI/2019/01/016833. Duration of the study was 14 days. Assessment was done before and after the study period.

**Inclusion criteria:** Patients with *Pratyathma Lakshanas* of *Gridhrasi*, Patients with the signs and symptoms of *Sciatica* and Patients of 18-70 years of either sex.

**Exclusion criteria:** Patients with Carcinoma of spine, Tuberculosis of spine and spinal fractures, Cauda equina syndrome, Any systemic disorder which might interfere with the course of treatment, Pregnant and lactating women and Sacralisation of spine.

#### Aims and Objectives

- To evaluate the efficacy of *Vishwadya Guggulu* with *Rasna Saptaka Kashaya* in *Gridhrasi* w.s.r to *Sciatica*.
- To evaluate the efficacy of *Trayodashanga Guggulu* with *Rasna Saptaka Kashaya* in *Gridhrasi* w.s.r to *Sciatica*.
- To compare and evaluate the therapeutic efficacy of both the group.

#### MATERIALS AND METHODS

The subjects of either gender diagnosed with *Gridhrasi* who fulfilled the inclusion and exclusion criteria were assigned with random allocation, complying with the informed Consent (IC). A case proforma containing all necessary details pertaining to study was prepared. The parameters considered for the study were graded as mentioned in the case proforma.

#### Ruk (Pain)

*Ruk* was graded based on Visual Analogue Scale.

#### Scoring pattern for Ruk.

Criteria	Score
No Pain	0
Mild	1
Moderate	2
Severe/Unbearable	3

#### Toda (Pricking sensation)

#### Scoring pattern for Toda.

Criteria	Score
No Pricking sensation	0
Occasionally in a day	1
Persists for few hours a day	2
Persistent throughout the day	3

#### Stambha (Stiffness)

#### Scoring pattern for Stambha.

Criteria	Score
No Stiffness	0
Occasionally in a day	1
Persists for few hours a day	2
Persistent throughout the day	3

#### Grhnatha (Spasm)

#### Scoring pattern for Grhnatha.

Criteria	Score
No spasm	0
Occasionally in a day	1
Persists for few hours a day	2
Persistent throughout the day	3

#### Muhu Spandana (Throbbing pain)

#### Scoring pattern for Spandana.

Criteria	Score
No throbbing pain	0
Occasionally in a day	1
Persists for few hours a day	2
Persistent throughout the day	3

#### Aruchi (Anorexia)

#### Scoring pattern for Aruchi.

Criteria	Score
Normal desire for food	0
Eating timely without much desire	1
Eating food a little longer than regular intervals	2
Aversion to the sight of food	3

#### Tandra (Paraesthesia)

#### Scoring pattern for Tandra.

Criteria	Score
No Paraesthesia	0
Occasionally in a day	1
Persists for few hours a day	2
Persistent throughout the day	3

#### Gaurava (Heaviness)

#### Scoring pattern for Gaurava.

Criteria	Score
No Heaviness	0
Occasional heaviness	1
Persistent for few hours a day	2
Persistent throughout the day	3

#### Lasegue's sign

#### Scoring pattern for Lasegue's sign.

Lasegue's sign	Present
	Absent

#### Assessment Criteria

**Subjective criteria:** *Ruk* (Pain), *Toda* (Pricking sensation), *Sthambha* (Stiffness), *Grhnatha* (Catch),

*Spandana* (Twitching), *Tandra* (Drowsiness), *Aruchi* (Anorexia), *Gourava* (Heaviness)

**Objective criteria:** SLR Test and Lasegue's sign.

**Diagnostic criteria:** Patients presenting with *Pratyatma Lakshanas* of *Gridhrasi*, Patients presenting with signs and symptoms of Sciatica and SLR test positive in affected leg (Ranging between 30<sup>0</sup> to 70<sup>0</sup>).

**Statistical Analysis:** Statistical analysis was done using SPSS VER 2.0. Subjective parameters such as *Ruk*, *Toda*, *Sthamba*, *Ghranata*, *Spandana*, *Aruchi*, *Tandra* and *Gourava* were subjected to Wilcoxon Signed rank test to compare the Mean values within the groups. The objective parameter SLR was subjected to Student's to compare the Mean values within the groups. Chi-square test was applied for assessment of Lasegue's Sign within the groups. These tests were applied at different time points like before treatment (BT), after treatment (AT) and at follow-up (AF).

**Investigation:** X-ray of the lumbo sacral spine in antero-posterior and lateral view, Blood for Hb%, Total Count, Differential Count, Erythrocyte Sedimentation Rate and RBS.

#### Observation

**Gender-** 22(55%) were female, **Age-** 16(40%) were between 29-38 years, **Habitat-** 38(95%) were from *Sadharana Desha*, **Occupation-** 20 (50%) were homemakers, **Low back ache:** All 40(100%) had low back ache, **Radiation of pain-** 21(52.5%) had Radiation to both the lower limb, **SLR Test and Lasegue's sign-** 40(100%) had positive SLR and Lasegue's test, **Nidra-** 21 (40%) had disturbed sleep, **Prakruthi-** 18 (45%) subjects belonged to *Vata kaphaja Prakruti*, **Agni-** 29 (72.5%) subjects were having *Vishmaggni*, **Ahara-** 20 (50%) subjects were indulging in *Akalabhajana* and 18 (45%) subjects were indulging in *Vishamashana*, **Vyayama-** 29 (72.5%) subjects had *Avara Vyayama Shakti*, **Type of Gridhrasi-** 28 (70%) subjects were of *Vata-kaphaja*, **Chronicity-** 24(60%) had more than 1 year.

## RESULTS

### Effect of Treatment on *Ruk*.

<i>Ruk</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	21.00	420.00	20.00	400.00	190.00	-0.593	0.553	NS
AT	18.40	368.00	22.60	452.00	158.000	-1.374	0.170	NS
AF	17.50	350.00	23.50	470.00	140.000	-2.071	0.038	S

### Effect of Treatment on *Toda*.

<i>Toda</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	20.08	401.50	20.92	418.50	191.5	-0.25	0.799	NS
AT	18.95	379.00	22.05	441.00	169	-0.95	0.339	NS
AF	18.05	361.00	22.95	459.00	151	-1.49	0.134	NS

### Effect of Treatment on *Sthamba*.

<i>Sthamba</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	21.30	426.00	19.70	394.00	184.00	-0.46	0.642	NS
AT	19.08	381.50	21.92	438.50	171.50	-0.87	0.385	NS
AF	18.28	365.50	22.72	454.50	155.50	-1.3	0.165	NS

### Effect of Treatment on *Grhnatha*.

<i>Grhnatha</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	22.15	443.00	18.85	377.00	167.000	-0.99	0.319	NS
AT	17.48	349.50	23.52	470.50	139.500	-1.840	0.066	NS
AF	17.48	349.50	23.52	470.50	139.500	-1.840	0.066	NS

**Effect of Treatment on *Muhu Spandana*.**

<i>Muhu Spandana</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	22.68	453.50	18.32	366.50	156.500	-1.503	0.133	NS
AT	21.18	423.50	19.82	396.50	186.500	-0.417	0.677	NS
AF	20.50	410.00	20.50	410.00	200.000	0.000	1.000	NS

**Effect of Treatment on *Aruchi*.**

<i>Aruchi</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	19.28	385.50	21.72	434.50	175.50	-0.750	0.453	NS
AT	19.30	386.00	21.70	434.00	176.00	-0.860	0.390	NS
AF	18.92	370.00	22.80	441.50	168.50	-1.174	0.240	NS

**Effect of Treatment on *Tandra*.**

<i>Tandra</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	19.72	394.50	21.28	425.50	184.50	-0.465	0.642	NS
AT	21.45	429.00	19.55	391.00	181.00	-0.615	0.539	NS
AF	21.32	426.00	19.68	393.50	183.50	-0.559	0.576	NS

**Effect of Treatment on *Gourava*.**

<i>Gourava</i>	Group A		Group B		Mann-Whitney U	Z value	p-value	Remarks
	Mean rank	Sum of ranks	Mean rank	Sum of ranks				
BT	20.45	409.00	20.55	411.50	199.00	-0.32	0.974	NS
AT	18.22	364.50	22.78	455.50	154.50	-1.508	0.131	NS
AF	19.00	380.00	22.00	440.00	170.00	-1.049	0.294	NS

**Effect of treatment on objective parameter****SLR****Effect of treatment on SLR.**

SLR		Mean	SD	SE	MD	PSE	t	P value	Re
BT	Group A	48.25	10.548	2.358	-1.500	3.260	-0.460	0.648	NS
	Group B	49.75	10.062	2.250					
AT	Group A	69.50	12.866	2.877	13.250	3.818	3.471	0.001	HS
	Group B	56.25	11.224	2.510					
AF	Group A	68.50	13.964	3.122	13.250	4.065	3.260	0.002	HS
	Group B	55.25	11.639	2.603					

**Lasegue's sign.**

Effect of treatment on lasegue's sign in between the groups						
Before treatment – after treatment						
Group	Present	Absent	Chi square value		p – value	Remarks
A	18	2	0.52		>0.05	NS
B	20	0				
After treatment – After follow up						
Group	Present	Absent	Chi square value		p– value	Remarks
A	4	16	0.17		>0.05	NS
B	3	17				

## DISCUSSION ON OBSERVATION

**Gender-** In the present study majority were females. Females are frequently involved in postural stress like bending, lifting, sitting and sustained non-neutral postures in routine household works. Men tend to carry heavy weight, ride for longer distance on uneven roads. These can be considered as pre-disposal factors to sciatica.

**Age-** Majority i.e. 16 (40%) subjects belonged to the age group of 29-38 years.

According to *Sushruta* 41-70years is *Parihani avastha*. Here there will be *Vata prakopa* resulting in decline of *Shareera Bala and Dhatus*. *The highest prevalence of herniated lumbar disc is among people aged 30-50 years and in older age group it is majorly due to disc degeneration*. Hence, prevalence of sciatica is high in middle and old aged people, which is supported in this study.

**Habitat-** Majority of the subjects were from *Sadharana Desha*. In Urban area majority of the population travel for longer duration in motor vehicles, indulge in irregular diet and will have bad postural habits due to prolonged working hours; these are the predisposing factors for *Gridhrasi*.

**Occupation-** In the present study majority were homemakers. Strenuous work, lifting heavy weights, day sleep and stress are usually seen in home makers. Improper posture, prolonged work hours and *Vegadharana* is observed in other profession such as engineers and drivers, these are the *Nidanas* responsible for *Gridhrasi*.

**Low back ache-** All the subjects had experienced low back ache due to *Prakupitha Vata* which takes *Sthana Samshraya* in *Kati Pradesha*.

**Radiation of pain-** 21 subjects were having Radiation of pain to Both Lower Limbs, the typical characteristic feature of *Gridhrasi* is pain traversing from *Kati Pradesha* progressing towards subjects *Paada*.

**SLR test and Lasegue's test-** It was positive in all the subjects, the diagnostic feature of sciatica is positive SLR and lasegue's sign, the same has been reflected in the study.

**Nidra-** Majority of the patients had *Nidranasha*, the character of pain in this disease will lead to disturbed sleep. *Nidranasha* is one of the consequences of *Vikara* as stated by *Acharya Charaka*.

**Prakruthi-** In this study, most of the subjects belonged to *Vata kaphaja Prakruti*, from this observation, we can say that there is dominance of *Vata Dosha* in majority of the

patients which maybe a predisposing factor for the *Vata Vyadhi*. The observed findings are in the support of this principle as per the classical description.

**Agni-** Most of the subjects had *Vishamagni*, it is due to the vitiation of *Vata*, and this signifies the importance of *Vata Dosha* in the pathogenesis.

**Aharaja Nidana-** *Akalabhojana, Vishamashana* and *Adhyashana* was observed in majority of the subjects like consuming food untimely, having little quantity of food and having dry food articles which is responsible for vitiation of *Vata Dosha*.

**Viharaja Nidana-** *Atiyaana* and *Bharaharana* were the common *Nidanas* found in the subjects. Riding on uneven roads and lifting heavy weights leads to disc herniation and disc bulge leading to *Sciatica*.

**Vyayama Shakti:** *Avara Vyayama Shakti* was observed in majority of the subjects this could be due to intensity of pain and restricted movements in *Gridhrasi*.

**Type of Gridrasi-** As majority of the patients were of *Vata-kaphaja prakruthi*, this could be the reason for observing *Vata-kaphaja Gridhrasi* dominantly.

**Chronicity-** Majority had chronicity for more than a year. This signifies the *Sadhyaasadhya* of the *Vyadhi*, early recovery can be favoured in the subjects with less chronicity.

### Discussion on disease

*Gridhrasi* is a condition of *Vata* characterized by *Sthamba, Ruk, Toda, Grhnatha* and *Spandana* beginning from *Sphik Pradesha, Kati, Prishta* radiating down to the posterior of *Uru, Janu, Jangha, Pada* and *Angulis* which shows the involvement of *Asthi Dhatu*. Radiating nature of pain is suggestive of *Snayu Upadhatu Sankocha*. Disability to walk is suggestive of involvement of *Mamsa Dhatu*. In *Vata-Kaphaja Gridhrasi* along with these symptoms *Aruchi, Tandra* and *Gourava* are seen, which is due to vitiation of *Rasa Dhatu*. These *Lakshanas* are seen in *Sciatica* which shows similar presentation.

The prevalence of sciatica symptoms reported in the literature varies considerably ranging from 1.6% in the general population to 43% in a selected working population. Although the prognosis is good in most patients, a substantial proportion continues to have pain for 1 year or longer.

### Discussion on drug

**Vishwadya Guggulu<sup>[7]</sup>** It is mentioned in *Bruhat Nighantu Ratnakara*. The contents of it are *Shunti, Pippali, Pippalimula, Vidanga, Devadaru, Saindhava, Chitraka, Yavani, Maricha, Vacha, Abhaya* and



*Guggulu*. In *Gridhrasi*, main *Dosha* are *Vata* and *Kapha*. A brief insight into *Doshagnatha* action of this combination shows main action against *Kapha Vata Dosha* by virtue of its *Ushna Veerya* and *Tikshna Guna*. Predominant *Rasa* in this combination are *Katu*, *Tiktha*, *Kashaya* which possess *Deepana Pachana* properties which help in *Ama Pachana* and pacifies *Kapha*. *Abhaya* is *Rasayana* and has *Vatanulomana* property, it helps to pacify *Vata*. Thus, it controls both *Kapha* and *Vata* together and minimizes the process of pathogenesis.

***Rasna Saptaka Kashaya***<sup>[8]</sup>. It is mentioned in *Chakradatta*, indicated for *Shula* in *Jangha*, *Uru*, *Prishtha*, *Trika* and *Parshva*. The ingredients of it are *Rasna*, *Guduchi*, *Aragvadha*, *Devadaru*, *Gokshura*, *Eranda* and *Punarnava*. *Eranda* and *Rasna* have *Amapachana* and *Kapha-Vatahara* properties, *Guduchi* having *Tikta*, *Kashaya* property does *Deepana* and it is also *Balya*. *Punarnava* is having *Tikta Kashaya Rasa*, *Katu Vipaka* and *Ushna Veerya* helps to relieve *Sthamba*. *Rasna Saptaka Kashaya* does *Ama Pachana* and acts as *Agnivardaka*. *Ama* due to *Agnimandya* causes obstruction, which in turn leads to *Vata Prakopa*. By doing *Ama Pachana* it helps to relieve *Vata* and thereby reduces the *Ruk* which is one of the cardinal symptoms of *Gridhrasi*.

#### ***Trayodashanga Guggulu***<sup>[9]</sup>

It is mentioned in *Bhaishajya Ratnavali*, the ingredients of it are *Abha*, *Ashwagandha*, *Hapusha*, *Guduchi*, *Shatavari*, *Gokshura*, *Vridhdharuka*, *Rasna*, *Shatapushpa*, *Shati*, *Yavani*, *Shunti*, *Guggulu* and *Goghrita*. *Ashwagandha*, *Guggulu* and *Abha* have *Balya*, *Brihmana* and *Rasayana* property, *Ashwagandha* is *Vatashamaka*, *Vedana Sthapana* and *Shoola prashamana*. *Shunti* has *Amapachaka* property. *Vridhdharu*, *Hapusha* and *Rasna* do *Amapachana* and thereby pacify *Kapha*. *Ghrta* is *Jeevaniya*, *Rasayana* and *Balya* brings *Mardatva* of *Vata* and due to its properties *Trayodashanga Guggulu* helps in reducing symptoms of *Gridhrasi*.

#### **Probable mode of action of drugs-**

*Vishwadya Guggulu* due to its *Katu*, *Tiktara* and *Ushna Veerya* causes *Agnideepana*, acts as *Srotoshodhana* and *Kaphashamaka* which reduces the symptoms like *Stambha*, *Gaurava*, *Tandra* and *Aruchi* by to its *Laghuguna*. Due to *Madhura Vipaka* and *Ushna Veerya* does *Vatanulomana* and *Bruhmana*, thereby reduces the symptoms of *Gridhrasi*.

*Ushna Virya*, *Tikta* and *Katu Rasa* of drugs in *Trayodashanga Guggulu* help in *Ama pachana* and pacify *Kapha* due to its *Snigdha Guna* it helps to reduce *Vata*. It had significant result on *Ruk*.

Another reason behind the effectiveness of this therapy might be that both the combination was administered with *Rasna Saptaka Kashaya*, it removes *Avarana* by its *Ushna Veerya*, *Tikta Kashaya Rasa* and *Katu Vipaka*.

*Eranda* is one of the ingredients and it mitigates *Rukshatva* of *Vata* by its *Snigdha Guna*.

#### **CONCLUSION**

*Gridhrasi* is one among *Vataja Nanatmaja Vyadhi*. The study reveals that the disease is more prevalent in the age group of 29-38 years, which signifies that *Gridhrasi* is commonly seen in middle age due to long working hours, improper posture and traveling for longer distance. It reveals that both the trial drugs were safe without any adverse effect. The results were found to be statistically highly significant ( $p < 0.001$ ) before treatment to after treatment and statistically significant after follow-up on all parameters. From the study, it is established that the combination *Vishwadya Guggulu* with *Rasna Saptaka Kashaya* act as *Vata-Kaphahara*, *Deepana*, *Pachana*, *Vedanasthapana*, *Rasayana* and give considerable relief from *Gridhrasi*. Thus, it can be concluded that these medicines are effective in the management of *Gridhrasi* especially on *Vata Kaphaja Gridhrasi*.

Based on the observation and results the following hypotheses were accepted.

- *Vishwadya Guggulu* with *Rasna Saptaka Kashaya* is effective in *Gridhrasi* w.s.r to *Sciatica*.
- *Trayodashanga Guggulu* with *Rasna Saptaka Kashaya* is effective in *Gridhrasi* w.s.r to *Sciatica*.
- *Vishwadya Guggulu* with *Rasna Saptaka Kashaya* is effective than *Trayodashanga Guggulu* with *Rasna Saptaka Kashaya* in *Gridhrasi* w.s.r to *Sciatica*.

#### **REFERENCES**

1. Sharma Ram Karan, Dash Bhagwan, Charaka Samhitha of Agnivesha. Vol-I. Chowkhamba Sanskrit Series Office, Varanasi, 2010. Sutra Sthana. Chapter: 20/11. Pg No 363.
2. Kshemaraja Sri Krishnadas. Harita Samhita of Harita. Sri Venkateshwara Mudranalaya, Mumbai, 1974, 200.
3. Kaustubh Jagdale / More than 10 million sciatica cases per year (India) [internet] 2016 <https://www.linkedin.com/pulse/more-than-10-million-sciatica-cases-per-year-india-kaustubh-jagdale>. (Accessed 15 December 2019).
4. Backpain [internet] [updated 2017 may 15] <https://medlineplus.gov/backpain.html>, 2019; 15.
5. BW Koes, MW Van Tulder, WC Peul. Diagnosis and treatment of sciatica. *BMJ*, 2007; 334: 1313. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1895638/> 15
6. Agnivesa Charaka Samhita, Ayurveda Dipika commentary of Cakrapanidatta, edited by Jadavji Trikamji Acharya, Chowkhamba Publication, Varanasi, and Reprinted edition, 2015; 28: 89.
7. Bruhat Nighantu Ratnakara, Hindi Tika Samhita, Panchama/Shasta Bhaga, Edited by Shri Dhattarama Srikrishna Lalmathura, Khemraj srikrishnadas prakashana, Mumbai pg:474.

8. Chakradatta (Chikitsa Sangraha of Chakrapanidutta), English Translation by Dr G Prabhakar Rao, First Edition, 2014; 5: 265.
9. Bhaishajya Ratnavali of Kaviraj Shri Govinda sen, Edited by Dr G Prabhakar Rao, Chaukamba Orientalia, Varanasi Vol-II, First Edition, 2014; 98-101.