COMPARATIVE STUDY OF *LASUNA KSHEERPAKA* AND *SHEPHALIPATRA KWATH (PARIJATA)* IN THE MANAGEMENT OF *GRIDHRASI*

Dr. Sainath Dilip Patil[1]*, Dr. Prasad K. Patil[2] and Dr. Sushant M. Thorat[3]

[1]*M.D. Kaychikitsa, Associate Professor, Department of Kaychikitsa, KDMG Ayurvedic medical college, Chalisgaon, Maharashtra, India.
[2]M.D. Kaychikitsa, Spandan Hospital, Khopoli, Raigad, Maharashtra, India.
[3]M.S. Shalya, Assistant Professor, Department of Shalyatantra, S.V.N.H.T's Ayurved Mahavidyalaya, Rahuri, Maharashtra, India.

*Corresponding Author: Dr. Sainath Dilip Patil

M.D. Kaychikitsa, Associate Professor, Department of Kaychikitsa, KDMG Ayurvedic medical college, Chalisgaon, Maharashtra, India.

ABSTRACT

Purpose-comparative study of *lasuna kasheerpaka* and *Shephalipatra kwath (parijata)* in management of *Gridhrasi* **Design**: Prospective, randomized, interventional, hospital based comparative study **Material & Methods:** In present study 60 patients were randomly selected and divided into 2 groups, with 30 patients each. First group was treated with *Lasuna Ksheerpaka* as experimental group; Second group was treated with *shephalipatra kwath* as controlled group. Clinical parameters like *Ruk*, *Toda*, *Stambha*, *Spandan*, *Gourav*, *Tandra*, *Aruchi*, SLR test were adopted. These were suitably graded to assess the results that were statistically analyzed. **Results:** The above distribution shows that in group- A there were 24 patients got moderate change, 2 patients got mild changes and 4 patients got Good change, where as in the group-B there were 20 patients got moderate changes, 9 patients got mild changes and 1 patient got good change in symptoms. But according to the Mann-Whitney test (Z), the difference between both of above group was found non significant, as the calculated P>0.05. From this we can conclude that the treatments given to the both of the groups are equally effective. **Conclusion:** On comparing the overall effect of both drugs we can conclude that *Lasuna ksheerapaka* is statistically effective than *Shephalipatra kwath* by giving 7.7% more relief in all symptoms.

KEYWORDS: *Gridhrasi*, *lasuna*, *Shephalipatra*, SLR test.

INTRODUCTION
Any knowledge system grows and develops through continuous researches and re-evaluations. Ayurvedic classics always emphasized the need of advancements in the science to keep pace with the need of time. The pledged purpose of Ayurveda as a medical system is to ensure a healthier and longer life to the humanity. In the backdrop of the resurgence of Ayurveda as an alternative or even an ultimate anchor to the psychosomatic and life style related diseases, the time is ripe enough to seriously take up productive researches in such disorders where Ayurveda can offer a better hand than any other medical system. In present era the disorders affecting the loco motor system are increasing. These conditions considerably reduce the human activity in terms of social and professional life.

Among such disorders Ayurvedic classics have described a severe debilitating disease in the name of '*Gridhrasi*'. The name itself indicates the way of gait shown by the patient due to extreme pain just like a *Gridhra* (Vulture). In modern view the above condition is described in which pain is experienced along the course and in the distribution of sciatic nerve. It is now become well known even among the laymen, as Sciatica.

As the advancement of busy, professional and social life, improper sitting posture in offices, factories, continuous and overexertion, jerking movements during traveling and sports – all these factors create undue pressure to the spinal cord and play an important role in producing low backache and sciatica. Likewise, progressive disorders affecting the pelvis and nearer structures are also precipitating this condition. In this way, this disease is now becoming a significant threat to the working population.

According to Ayurveda simple freedom from disease is not health. For a person, to be healthy he should be mentally and spiritually happy. An imbalance in Doshik equilibrium is termed as 'Roga'. Among Tridosha, *Vata* is responsible for all Cheshta and all the diseases. As having the properties of loco motor, its dynamic entity, its intensity and majority of its specific disorders in

number more importance and attention is given to the *Vata* dosha.

When we analyze the conditions which precipitate 'Gridhrasi' it can be learnt that any abhighat affecting the lower part of the spinal cord can produce this disease. But then even mild stresses induced in the above part can make considerable alterations in the functions of loco motor system. This may predispose the conditions similar to 'Gridhrasi' in due course.

A variety of *vata*vyadhies described in Charaka Samhita are divided into samanyaja and nanatmaja. *Gridhrasi* comes under 80 types of nanatmaja *vata*vyadhies.[1] The cardinal signs and symptoms are *Ruk*, *Toda*, Muhu*Spandan*a, and *Stambha* in the Sphik, Kati, Uru, Janu, Jangha and Pada in order and Sakthikshepa nigraha i.e. restricted lifting of the leg. In *kapha* nubandhi *Tandra*, *Gourav*a, *Aruchi* are present.

The knowledge of this condition, to the modern medical science is just two centuries old, while this condition is known to Ayurveda since last five thousand years. The modern line of treatment provides a range of analgesic and sedative type of medication. Physiotherapy and lastly surgery which are also not the final answer and there is a common problem of recurrence. "Sciatic Syndrome" - a condition described in modern medicine resembles with *Gridhrasi*. In sciatica there is pain in the distribution of sciatic nerve which begins from buttock and radiates downwards to the posterior aspect of thigh, calf and to the outer border of foot. Herniation or degenerative changes in intervertebral disc is the most common cause. There is often history of trauma, as twisting of the spine, lifting heavy objects or exposure to cold.

As far as aetio-pathology of *Gridhrasi* is concerned 'Vata vaigunya' is important. It essentially plays a role in the over stimulation of the nerve as experienced by severe pain in the course of affected part.

It is worthwhile to study the various etiologies mentioned for the formation of *vata*vyadhies and their role in the formation of *vata*vaigunya with special reference to *Gridhrasi*.

In *Gridhrasi*, the vitiated *vata* dosha produces pain firstly in the nitambapradesh then the pain radiates to kati, prushtha, uru, jaanu, jangha and pada respectively. The *Lasuna* has the Snigdh, pichhil, guru and ushna guna which mainly acts on the *Ruk*sha guna of vitiated *vata*. Therefore *Lasuna* is selected for study.

Shephali (Parijata) have laghu, *Ruk*sha and ushna properties which mainly act on the Sheeta guna of the *Vata* and it also acts as *Kapha vata* shamak so *Shephalipatra* is selected.

MATERIALS AND METHODS
The study design set for the present study is **"Randomised comparative study".** Patients having lakshanas of *Gridhrasi* mentioned in ayurvedic classical texts were selected for the research work. Clinical data obtained from the study was analyzed with proper statistical methods & results are presented. Total 60 patients were selected. The study completed in two groups viz.

After complete examination and investigations all patients were divided into 2 groups.

EXPERIMENTAL GROUP (GROUP A)
In this group 30 patients were kept on *Lasuna Ksheerpaka* 40 ml twice daily.

CONTROL GROUP (GROUP B)
In this group 30 patients were kept on *Shephalipatra kwath* 40 ml twice daily.

TREATMENT PLAN
For Group A (Experimental group)
- **Drug :** *Lasuna* ksheerapaka
- **Dose :** 40 ml
- **Kala :** Vyanodane (After morning & evening meal)
- **Duration of Trial :** 28 days
- **Route of Administration:** Oral
- **Follow up:** 7th day, 14th day, 21th day, 28th day

For Group B (Control Group)
- **Drug :** *Shephalipatra kwath*
- **Dose :** 40 ml
- **Kala :** Vyanodane (After morning & evening meal)
- **Duration of Trial:** 28 days
- **Route of Administration:** Oral
- **Follow up:** 7th day, 14th day, 21th day, 28th day

ADVICE
The pamplates of pathyakarak Ahar, Vihar are given to patients. The following preventive measures are advised to patients of *Gridhrasi* undergoing treatment.
- Proper posture during work should be kept.
- Sitting and standing for prolonged period should be avoided.
- Avoid asymmetrical standing.
- Support must be given to feet while sitting.
- Crossing of legs at knee should be done.
- Avoid forward bending while working.
- Avoid straight bending down while lifting weights.
- Stretching and strengthening exercise are useful.

SELECTION OF PATIENTS
Patients for this clinical research were selected from OPD & IPD of Kayachikitsa department of our institute and also from medical camps.

INCLUSION CRITERIA
- Patients with all the symptoms of the *Gridhrasi* were selected and divided in 2 group's viz. Group A and Group B.
- Patient in age – Above 20 yrs. and below 60 yrs.
- Sex – Both sexes.

EXCLUSION CRITERIA
- Below 20 yrs. and above 60 yrs.
- Patients suffering from CA of spine, Tuberculosis of spine, Tumor of Cauda equina, Pregnancy, DVT, Uncontrolled Diabetes Mellitus and any other significant pathological changes.

WITHDRAWAL CRITERIA
- Occurrence of serious adverse events.
- The investigator feels that the protocol has been violated/patients were became in-cooperative.
- The patient is not willing to continue the trial / to follow the assessment schedule.

INVESTIGATIONS
Following investigations were done on 1st day prior to inclusion.
CBC, ESR, X-Ray (Lumbo-sacral region) (AP-Lateral view).

CRITERIA FOR ASSESSMENT
Clinical Parameters: - Following chief complaints were assessed using V.A.S (Visual Analogue Scale) to determine their order of severity.
1. *Ruk*
2. *Toda*
3. *Stambha*
4. *Spandan*
5. *Gourav*
6. *Tandra*
7. *Aruchi*
8. SLR test

The detail assessment of clinical signs and symptoms are described below with the detail of score given to each sign and symptoms and clinical tests carried out.

Result of therapies was assessed on the basis of comparison of scores recorded before treatment and after treatment and relapse (if occurs).

1. *Ruk* (pain)
Table no. 1: Severity of pain on the basis of the ability of patient to walk without any difficulty.

a.	No pain	0
b.	Occasional pain	1
c.	Mild pain but no difficulty in walking	2
d.	Moderate pain and slight difficulty in walking	3
e.	Severe with severe difficulty in walking	4

2. *Stambha* (Stiffness):-Table no.2

a.	No stiffness	0
b.	Sometimes for 5 to 10 mins	1
c.	Daily for 10 to 30 mins	2
d.	Daily for 30 to 60 mins	3
e.	Daily more than 1 hr.	4

3. *Toda* (Pricking sensation):-Table no.3.

a.	Absent	0
b.	Occasionally	1
c.	Mild	2
d.	Moderate	3
e.	Severe	4

4. *Spandan* (Twitching):- Table no.3

a.	No twitching	0
b.	Sometimes for 5 – 10 mins	1
c.	Daily for 10 – 30 mins	2
d.	Daily for 30 – 60 mins	3
e.	Daily more than 1 hr.	4

5. SLR test
In this test the relaxed and extendedlower extremities should be lifted from the bed and patient should be instructed to inform the examiner about when and where the pain occurs and this should be recorded in terms of appropriate degrees made in supine sleeping position. This was measured in terms of degrees using Goniometer. **Table no.5.**

a.	**More than 90°**	**0**
b.	71° - 90°	1
c.	51° - 70°	2
d.	31° - 50°	3
e.	Upto 30°	4

6. *Gourav*:- **Table no.6**

a.	Absent	0
b.	Occasionally	1
c.	Mild	2
d.	Moderate	3
e.	Severe	4

7. *Tandra*: - **Table no.7**

a.	Absent	0
b.	Occasionally	1
c.	Mild	2
d.	Moderate	3
e.	Severe	4

8. *Aruchi* :- **Table no.8**

a.	Absent	0
b.	Occasionally	1
c.	Mild	2
d.	Moderate	3
e.	Severe	4

Group – A – Follow up; Table no.9

Symptoms	1st day	7th day	14th day	21th day	28th day
Ruk					
Stambha					
Toda					
*Spandan*a					
SLR test					
Gourav					
Tandra					
Aruchi					

Group – B – Follow up; Table no.10

Symptoms	1st day	7th day	14th day	21th day	28th day
Ruk					
Stambha					
Toda					
*Spandan*a					
SLR test					
Gourav					
Tandra					
Aruchi					

OBSERVATIONS AND RESULTS
Table no. 11: Symptom wise distribution of 60 patients of *Gridhrasi*.

Symptoms	% Relief	
	Group-A	Group-B
Ruk	60.1	46.8
Stambha	58.6	52.4
Toda	64.8	53.8
Spandan	58.4	59.6
SLR Test	58.8	57.7
Gourav	62.1	46.2
Tandra	67.9	48.5
Aruchi	53.5	46.5
Total score	60.5	52.8

The above results shows relief in percentage,
A) **Group – A** – *Ruk* (60.1%), *Stambha* (58.6%), *Toda* (64.8%), *Spandan* (58.4%), SLR test (58.8%), *Gourav* (62.1%), *Tandra*(67.9%), *Aruchi* (53.5%).
B) **Group – B** - *Ruk* (46.8%), *Stambha* (52.4%), *Toda* (53.8%), *Spandan* (59.6%), SLR test (57.7%), *Gourav* (46.2%), *Tandra*(48.5%), *Aruchi* (46.5%).

Table no 12: Overall effects on *Gridhrasi*.

Overall Effect	No. of cases	
	Group-A	Group-B
No change (<25%)	-	-
Mild change (25% – 49.9%)	2	9
Moderate change (50% -74.9%)	24	20
Good change (75 % +)	4	1

The above distribution shows that in group- A there were 24 patients got moderate change, 2 patients got mild changes and 4 patients got Good change, where as in the group-B there were 20 patients got moderate changes, 9 patients got mild changes and 1 patient got good change in symptoms.

Table no 13: Total score wise distribution of 60 patients of *Gridhrasi*.

Total score	Day-0		Day-28		% Relief	Wilcoxon Signed Ranks Test Z	P
	Mean score	Sd	Mean score	Sd			
Group-A	13.50	3.85	5.33	2.32	60.5	4.799	<0.001 HS
Group-B	13.40	3.10	6.33	2.41	52.8	4.835	<0.001 HS

Above Table shows that the *Lasuna* ksheerapaka provides highly significant relief (p=0.001) i.e. 60.5% and *Shephalipatra kwath* also provides highly significant relief (p=0.001) i.e. 52.8% in total score of patients.

Table no. 14: Comparative effects of the drugs on TOTAL SCORE.

Total score	Mean difference score	Sd	Mann-Whitney Z	P
Group-A	8.17	2.23		
Group-B	7.07	1.552	1.875	0.061 NS

The mean difference score in the experimental group – A (8.17) was found greater than the mean difference score of the control group - B (7.07). This suggests that the treatment given to the experimental group – A is more effective than that of the treatment given to the control group.

But according to the mann-whitney test (Z), the difference between both of above group was found non significant, as the calculated P>0.05. From this we can conclude that the treatments given to the both of the groups are equally effective.

DISCUSSION
In human body, the lumber spine is the site of most expensive orthopedic problem for the world's industrialized countries. The central nervous system as well as autonomic nervous system work through the spine and the entire nervous system dependant upon the spine. So the diseases affecting lumber spine are handled very carefully.

Gridhrasi is such a disease having its origin in Pakvashaya and seat in Sphika and Kati i.e. lumbar spine. In classics, *Gridhrasi* is included under 80 types of Nanatmaja *Vata* Vikara under the heading of *Vata*vyadhi as a separate clinical entity. Acharya Sushruta has emphasized the involvement of *Kandara* from *Parshni* to *Anguli* in producing the disease *Gridhrasi*. He also added an important sign *Sakthanaha-kshepamnigraniyat* i.e. restriction in lifting the affected leg. Nowadays, this sign known as S.L.R. test. It plays a major role in diagnosis of the disease and assessment of effect of therapy as an objective parameter.

The samprapti takes place either by dhatukshay or margavaran or due to agantunj causes like abhighat. In dhatukshayaj samprapti, due to improper nourishment of rasadi dhatus, kshay avastha is produced. Due to dhatukshay further vitiation of *vata* takes place. This type of samprapti can be correlated to the Sciatica caused by degenerative changes. These changes are osteoporosis, spondylosis etc. which lead to Sciatica. When *vata* dosha is obstructed by *kapha*, aam etc. it gets vitiated leading to margavaranajanya samprapti of *Gridhrasi*. Agantuj factors are mentioned as a cause of *Gridhrasi* by both the systems of medicine.

This dissertation studies the literary review of *Gridhrasi* and the effect of *Lasuna*ksheer in *Gridhrasi* and *Shephalipatra kwath*. The treatment of Sciatica is limited to analgesics, anti-inflammatory drugs, physiotherapy or surgery in extreme cases; but is not very satisfactory and often associated with many adverse effects. The present study was proposed with an idea of benefiting the patients at OPD level.

60 patients of either sex showing classical signs and symptoms of *Gridhrasi* were selected and divided into two equal groups. *Lasuna*kseer was given in group A and *Shephalipatra kwath* in group B. During the course of treatment weekly assessment were done for a period of one month.

Coming to management of the *Gridhrasi*, all the drugs chosen for the study are having Ushna Virya and *Kapha -Vata* Shamaka properties. So by their virtue, they help in dissolving the Samprapti of *Gridhrasi* as it is a *Vata*-Pradhana disease or sometimes *Kapha* is in association with *Vata*. All the drugs were having anti inflammatory and analgesic properties as well. Therefore helps in relieving the pain and inflammation of nerve, if any.

Lasuna is the best *vata*hara dravya. Due to the properties like snigdha, ushna, guru, it pacifies *vata*. Godugdha is also having properties guru, snigdha, madhur which are *vata*shamak. (API)

The action of Shephali (Parijata) on *Gridhrasi* is well established. The Patra *Kwath* of Shephali (Parijata) has been highlighted as a single drug of choice which acts wonderfully in the management of *Gridhrasi* as described in "*Chakradutta*" and "*Bhaishajya-Ratnavali*".

In the present study, a total of 60 patients suffering from *Gridhrasi*, were completed the treatment (30 patients in each group). The signs and symptoms of *Gridhrasi* (sciatic syndrome) were mainly considered for the diagnosis. Routine hematological and some biochemical investigations were also carried out in these patients. These registered patients, irrespective of their age, sex and religion, were randomly categorized into two groups' viz. *Lasuna* ksheerapaka (Group A) and *Shephalipatra kwath* (GroupB).

Effect of therapies on signs and symptoms
The effect of therapies was assessed on each sign and symptoms of *Gridhrasi*. These signs and symptoms were given score before and after treatment and were assessed statistically to see the significance. The effect of both therapies on each symptom was follows.

Ruk
The initial mean score of *Ruk* in Group A was 2.33 that reduced to 0.93 with relief of 60.1% the result was statistically highly significant (p=0.001). Where as in Group B the initial mean score of *Ruk* was 2.50 and it was reduced to 1.33 with relief of 46.8%. It was also highly significant (p=0.001). It is clear from above report that significant relief was found in both group but percentage relieve was better in Group A.

This is clear from above discussion that both the treatments reduced the *Ruk* in the patients of *Gridhrasi* but it was more in Group A in comparison to Group B. The pain is produced mainly by the prakopa of *vata* and *Lasuna* is the best drug for *vata*. So this may be one of the reasons that the better relief has been found in Group A in comparison to Group B.

Stambha
The mean score of *Stambha* reduced to 0.87 from the intial score of 2.10 in Group A showing 58.6% improvement and it was statistically highly significant (p=0.001). In Group B *Stambha* was reduced to 1.00 from 2.10 with 52.4% relief. Statistically Group A shows significant results as (p<0.05) and Group B shows insignificant results.

In group A, *Stambha* was relieved by 58.6% which is statistically significant as assessed by Wilcoxon Signed Ranks Test.

In group B it was relieved by 52.4% which is statistically non significant. Thus *Lasuna* ksheerapaka is effective in relieving the symptom *Stambha* while *Shephalipatra kwath* was not effective.

Toda
It was reduced to 0.87 after the treatment from its initial score with relief of 64.8% and was also statistically highly significant (p=0.001) in Group A where as in Group B, its initial mean score was 2.10 and it reduced to 0.97 with relief of 53.8%. It was also statistically highly significant.

Toda is also one of the important symptoms produced by vitiation of *vata*. Both the therapies have shown highly significant (p=0.001) improvement in this symptom. But from the percentage point of view the relief was better in Group A.

Spandana
The initial mean score of *Spandan*a in Group A was 2.33 which was reduced to 0.97 with 58.4% relief, where as in Group B, it was reduced to 0.90 from the initial score 2.23 with 59.6% relief. It was statistically highly significant as (p<0.05).

It is observed that more relief was seen in Group B than Group A.

S.L.R. Test
Sushruta has mentioned that in this condition forward movement of leg is restricted. Now a day's *sankthikshepha nigraha* is measured by straight leg raising test in degree with the help of goniometer.

The mean score in initial stage was 2.43 which were decreased to 1.00 after the treatment, with highly significant result.

In Group B mean score of 2.13 decreased to 0.90 with highly significant result.

It is obvious that after *Lasuna* ksheerapaka treatment all patients got 58.8% relief. In Group B also patients got 57.7% relief. It is the main clinical test for the assessing of *Gridhrasi*.

Gourav
In Group A, the initial score of *Gourav*a was 0.87 which was reduced to 0.33 with 62.1% relief with significant result (p=0.001). In Group B the symptom was reduced to 0.50 from the initial score with 46.2% relief with significant result.

In Group A *Gourav*a was reduced more than that of Group B.

Tandra
Tandra was reduced to 0.17 from the initial score 0.53 in Group A with 67.9% relief and significant result (p=0.005). In Group B the initial score of *Tandra* was 0.97 which reduced to 0.50 with 48.5% relief with significant result (p=0.001).

The effect of *Lasuna* ksheerapaka was again better in relieving the symptom *Tandra* in comparison to *Shephalipatra kwath*. This symptom is also of *vata kapha* ja *Gridhrasi* and *Lasuna* provided relief in vitiated *kapha* by its properties. In Group B it was relieved with 48.5% with significant result.

Aruchi
It was reduced to 0.20 from the initial score 0.43 with 53.5% relief and significant result (p=0.008). In Group B it was reduced from the initial score 0.43 with 46.5% relief. It is obviously showed that the effect of *Lasuna* in the *Aruchi* was better. It is a symptom of *vatakapha* ja which was strongly relieved by *Lasuna*. It was markedly relieved by *Shephalipatra kwath* also because of its *ushna virya.*

Total score
In Group A, mean score was 13.50 which was reduced to 5.33 with 60.5% relief and highly significant result (p=0.001). In Group B mean score was reduced to 6.33 from initial score 13.40 with 52.8% relief.

The effect of *Lasuna ksheerapaka* was better in comparison to the *Shephalipatra kwath.*

PROBABLE MODE OF ACTION
The mode of action of *Lasuna ksheerapaka* can be interpreted as follows
Lasuna is the best *vata*har dravya. Due to the properties like *snigdha, ushna, guru,*[2] it pacifies *vata*. *Godugdha* is also having properties *guru, snigdha, madhur*[3] which are *vatashamak*.

Samprapti of *vata*vyadhi takes place in two ways, i.e. dhatukshayjanya and srotorodhjanya. Deranged jatharagni leads to formation of aam which acts as obstacle in the normal gati of *vata* dosha. *Lasuna* acts as *deepan, pachan*, so that it is able to rectify the *aam* and *srotorodh*, which will effective in *Srotorodhajanya samprapti*

Due to *deepana, pachana* activities, the *jathar-agni* will get increased and proper digestion will takes place so that *Rasadi dhatu* gets proper *poshakansh*. *Lasuna* is *vrushya, snigdha*[4] and godugdha have properties *balya, bruhan* and *rasayan*[5] which nourish the *dhatu* and also *vata*shaman takes place. Thus the *Lasuna*ksheerapaka is also effective in *dhatukshayjanya samprapti*.

Lasuna is mruduvirechak by which it does *vata*nuloman. It is *Rasa- Rakta prasadak* as it is *Rasayan* and *kusthaghna*. By its bhagna-sandhankar action it increases majja and asthigata agni which does pachana of *vata* in that place. As it is shulaprashaman it does *pachana* of *vata* by its *ushna guna* and does *vata*nuloman.

The mode of action of *Shephalipatra*[6] *kwath* can be interpreted as follows
Shephali (Parijata) have *laghu*, *Ruk*sha and ushna properties which mainly act on the *Sheeta guna* of the *Vata* and it also acts as *Kapha vata shamak*.

Anaha and *adhmana* these *lakshanas* are presented by *pakwashaya*, which is udbhavasthana of *Gridhrasi*. By the property of vibandhanashak it acts on *Aruchi* also.

Parijata acts as *shoolaprashamana* which ultimately decreases the radiating pain from *sphik, kati, pristha* to *pada*.

It is also beneficial for *Majjadhatu*; because of its healthy effect over *Netra* as it is *Chakshushya*.

Its *shothaghna* effect proves its *mamsagamita*. Its *keshya* effect helps in decreasing the *dushti* of *asthidhatu*.

CONCLUSION
At the end of the study, following conclusions can be drawn on the basis of observations made, results achieved and thorough discussions in the present context.
- Samhitas have described vitiation of *vata* dosha is the main cause in the disease *Gridhrasi*, sometimes *kapha* is the anubandhi dosha. This is supported

clinically as all the patients showed *vata*prakopaka hetus as thecause.
- There is no direct reference regarding the Nidana and Samprapti and mainly *Vata*vyadhi chikitsa has been advised in *Gridhrasi*.
- Majority of the patients had dwandwaj prakruti i.e. 26 of *vatapitta* and 25 of *vatakapha*. Also 27 patients had vishamagni and 21 patients had krura koshtha. All these finding support the dominance of *vata* dosha.
- *Gridhrasi* can be compared with Sciatica on account of its etiopathogenesis and clinical manifestations.
- The pratyatma lakshanas *Ruk*, *Toda*, *Stambha* in the sphik, kati**,** prishta, janu, jangha and pada region were the common presentation in all the patients.
- All the drugs chosen for the study are having Ushna Virya, Deepana and *Kapha - Vata* Shamaka properties. So by their virtue, they help in dissolving the Samprapti of *Gridhrasi*.
- From the drug review it was concluded that the use of *Lasuna* is an effective remedy for management of *Gridhrasi*.
- By statistical analysis it is concluded that *Lasuna* ksheerapaka (60.5% relief) and *Shephalipatra kwath* (52.8% relief) shows significant results in reducing all of signs and symptoms of *Gridhrasi*.
- On comparing the overall effect of both drugs we can conclude that *Lasuna* ksheerapaka is statistically effective than *Shephalipatra kwath* by giving 7.7% more relief in all symptoms.
- There is significant increase in SLR angle because in Group A its initial mean score was 2.43 which reduced to 1.00 with 58.8% relief and in Group B it reduced to 0.90 from initial score 2.13 with 57.7% relief and also decrease in pain.
- Occupation plays an important role in the manifestation of the disease*Gridhrasi*.

No major adverse or side effects were encountered during the treatment period.

REFERENCE
1. Acharya Vidyadhan Sukla & Ravidatta tripathi Editor(s), (Reprint 2010 Ed.).Charak Samhita of Agnivesh, Sutrasthan; maharagadhyay: Chapter 20, Verse 11. Delhi: Chaukhambha Sanskrit Pratisthan, 2010; 293.
2. Dr. Ganesh Krushna Garde Editor(s), (Reprint 2007 Ed.).Ashtang Hrudya of Vagbhat, Sutrasthan;Annasuarupvidyaniy:Chapter 6, Verse 37-108. Pune-2: Anmol Prakashan, 2007; 31.
3. Kaviraj Ambikadatta Shasrtri Editor(s), (Reprint 2009 Ed.).Sushrut Samhita of Sushruta, Sutrasthan; Dravadravyavidhi:Chapter 45, Verse 50. Varanasi: Chaukhambha sanskrit Sansthan, 2009; 223.
4. Acharya Vidyadhan Sukla & Ravidatta tripathi Editor(s), (Reprint 2010 Ed.).Charak Samhita of Agnivesh, Sutrasthan; annaanvidhi: Chapter 27, Verse 177. Delhi: Chaukhambha Sanskrit Pratisthan, 2010; 406.

5. Dr. Ganesh Krushna Garde Editor(s), (Reprint 2007 Ed.). Ashtang Hrudya of Vagbhat, Sutrasthan; dravadravyavidnyniy: Chapter 5, Verse 22. Pune-2: Anmol Prakashan, 2007; 19.
6. Acharya Priyavrat Sharma Edition-2009 shasthaadhyay, Arshognandivarga, chauhamba bharati prakashan, Varanasi, 551-552