

EFFECT OF KARMA BASTI AFTER VAMANA KARMA IN CONTEXT OF GRIDHRASI W.S.R. SCIATICA

Sanjay Kumar¹ Ashish Pareek² Gopesh Mangal³ Srinivas Sharma⁴

¹Assistant Professor, Deptt. of Panckakarma, SSSb Ayurvedic college, K. Renwal, Jaipur, Rajasthan, India

²Assistant Professor, Deptt. Of Shalya Tantra, SSSB Ayurvedic college, Rajasthan, India

³Assistant Professor, Deptt. Of Panchakarma, NIA, Rajasthan, India

⁴Associate Professor, Deptt. Of Kaumaryabhritya, NIA, Rajasthan, India

ABSTRACT

Sciatica is one of the causes of back pain. 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%. Sciatica equated with *Gridhrasi* in Ayurveda, caused by aggravated *Vata dosha* and mentioned under *Vatavyadhi*. The study was conducted in 37 cases who registered in OPD & IPD of hospital presenting with classical features of *Gridhrasi*. The patients were divided randomly in two groups: Group-A, *KarmaBasti* was planned in 21 patients with *Vrishadi-NiruhaBasti* & *Vajigandhadi Anuvasana-Basti* and in Group-B, *KarmaBasti* were planned in 16 patients with *Vrishadi-NiruhaBasti* & *VajigandhadiAnuvasana-Basti* after *Vamana Karma*. Observations and findings were documented during study and evaluated by using various assessment criteria. Symptomatically & Statistically significant improvement ($p < 0.001$) was observed in majority of cases. The results obtained indicated improvement in sign & symptoms of *Gridhrasi* and *KarmaBasti* were effective in combating the disease. On comparing the overall effect of therapy, Group B was more effective than Group A. According to the *ChikitsaSiddhanta*, “*Nadau Bastividhim Kuryada Yavadurdhve Na Shudhyati*” (Cakradutta) proved that *Basti* is more effective after *Vamana* in the management of *Gridhrasi*.

Keywords: *Gridhrasi*, *Sciatica*, *Basti*, *Vamana Karma*

INTRODUCTION

Sciatica refers to pain, weakness, numbness, or tingling in the leg. Sciatica is a symptom of another medical problem, not a medical age.¹ 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%. The annual prevalence of disc related sciatica in the general population is estimated at 2.2%.²

Classical symptom of sciatica is

lumbosacral radicular leg pain that follows a dermatomal pattern radiating below the knee and into the foot and toe.^{3,4} The pain worsens with coughing; patients may report sensory symptoms, limited forward flexion of the lumbar spine, gait deformity and unilateral spasm of the paraspinal muscles. However, most patients present with a less clear clinical picture.⁵ These presentations were, also, common in ancient era and *Ayurveda* named it as

How to cite this URL: Sanjay Kumar Et Al: Effect Of Karma Basti After Vamana Karma In Context Of Gridhrasi W.S.R. Sciatica. International Ayurvedic medical Journal {online} 2016 {cited 2016 July} Available from:

http://www.iamj.in/posts/images/upload/2993_3001.pdf

Gridhrasi. It is considered under *Shoola Pradhana VataVyadhi*. The cardinal clinical features of *Gridhrasi* are –*Ruka* (Pain) –*Toda*(Pricking Sensation) –*Stambha* (Stiffness) –*Muhurspandana* (Twitching) in the *Sphika – Kati – Uru – Janu – Jangha – Pada* in order and in *KaphanubandhiTandra, Arocaka and Gaurava* are present.⁶ *Sakthini KshepamNigraha* i.e. restricted lifting of lower limb is important feature in *Gridhrasi*.⁷

Most of the research works on *Gridhrasi* done on *Katibasti, Basti, Raktamokshana, Agnikarma, Abhyanga-Swedana, Samana Aushadha*, traction etc. But no any work done on very important *Chikitsa Siddhanta* said by *Cakradutta* for *BastiKarma*. Thus all the above factors had taken in consideration, the study was formulated to compare the relative efficacy of *BastiKarma (Karma-Basti)* after *Vamana Karma* & without *Vamana Karma* in management of *Gridhrasi* w.s.r. to *Sciatica*.

Materials and Methods

Following materials & methods will be employed for conducting the present study:-

A) Selection of patients

The Study was conducted on the 37 clinically and radiologically diagnosed patients of *Gridhrasi* (*Sciatica*). They were registered in the OPD/IPD of hospital irrespective of religion, sex, occupation & caste etc. after obtaining due consent.

a) Inclusion criteria

1. Patients in the age group of 25-60 years suffered from *Gridhrasi*.
2. Patients with *Pratyatma lakshana* of *Gridhrasi*.
3. Patients had positive physical signs/special tests of *Gridhrasi*.⁸
4. *Sciatica* due to Intervertebral Disc prolapsed (L4-5 & L5-S1), Lumbar Spondylosis.

5. Both acute and chronic (< 5 years) cases of *Gridhrasi* had included.

b) Exclusion criteria

1. Bilateral *sciatica*
2. Patient suffered from Tuberculosis (spine), Tumours / neoplasm of spinal cord, Pyogenic osteomyelitis or any infective conditions of spine.
3. Pain due to Spinal deformity, Fracture of hip bone, Sacro-iliac Arthritis.
4. Patients with Rheumatoid arthritis, Gout, arthritis, etc.
5. *Sciatica* with uncontrolled Diabetes & uncontrolled Hypertension.

B) Selection of Basti procedure

Basti relieves stiffness, contractions and adhesions, Effective in paralytic conditions, Effective in dislocations and fracture conditions, Effective in those conditions where *Vata* aggravated in *shakha*/extremities, Relieves pain, Effective in disorders of GI tract, Beneficial to debilitated and weak persons. *Basti* is considered as *ArdhaChikitsa* or sometimes *Sampurna Chikitsa*.⁹ Thus *Basti* was chosen for the treatment of *Gridhrasi*.

Dose of Basti dravya

The amounts of *NiruhaBasti* administered in patients were 750ml-1000ml and amount of *AnuvasanaBasti* administered were 100 ml-150ml as according to patients.¹⁰

C) Management of patients and Treatment Schedule

The patients were divided into two groups-

Group A -*Karma Basti* were given to 21 registered patients with *VrishadiNiruha-Basti*¹¹ & *VajigandhadiAnuvasanaBasti*¹² without *Vamana Karma*.

Group B - *KarmaBasti* will be given to 16 registered patients with *VrishadiNiruha-Basti* & *VajigandhadiAnuvasanaBasti* after *Vamana Karma*.

Vamana Karma–

1st-7th day- Abhayantara Snehana(Snehapana) with Go-Ghrita
 7th-9th day - Abhyangawith DashmulaTail & Swedana with Dashmulakwatha vashpa
 9th day- Vamana Karma
 9th-16th day – SamsarjanaKarma¹³
BastiKarma –30 Basti were administered, after the PurvaKarma (i.e. Abhyanga with DashmulaTail & Svedana with Dashmulakwatha vashpa) in following manner -
 1st day – 01 VajigandhadiAnuvāsanaBasti
 2nd-13th day -12 Vrishadi-NiruhaBasti in morning before meal
 2nd-13th day -12 VajigandhadiAnuvāsanaBasti in evening after meal
 14th-18th day -05 VajigandhadiAnuvāsanaBasti in evening after meal

Maximum time for procedure – 35 days [Vamana Karma (16 days) + Rest (1 day)+ BastiKarma (18 days) - since Basti started from 9th day after Vamana Karma.]

D) CRITERIA FOR ASSESSMENT:¹⁴

Clinical assessment of symptoms and severity had done in terms of gradation of Ruka (pain) and other associated symptoms. For this purpose main sign and symptoms were given suitable score. The relative extent of all these criteria was recorded according to the rating scale in each patient at before and after the treatment, according to their severity. Both subjective and objective criteria were employed for assessment of impact of the treatment.

Table No.01: showing grading of subjective variables (Vataja Symptoms)

| S.No. | Vataja Symptoms | | Score |
|-------|----------------------------------|--|-------|
| 1. | Ruka (Pain) | No pain | 0 |
| | | Occasional pain | 1 |
| | | Mild pain but no difficulty in walking | 2 |
| | | Moderate pain and slight difficulty in walking | 3 |
| | | Severe pain with severe difficulty in walking | 4 |
| 2. | Toda (Pricking Sensation) | No pricking sensation | 0 |
| | | Occasional pricking sensation | 1 |
| | | Mild pricking sensation | 2 |
| | | Moderate pricking sensation | 3 |
| | | Severe pricking sensation | 4 |
| 3. | Stambha (Stiffness) | No stiffness | 0 |
| | | Sometimes for 5 – 10 minutes | 1 |
| | | Daily for 10 – 30 minutes | 2 |
| | | Daily for 30 – 60 minutes | 3 |
| | | Daily more than 1 hour | 4 |
| 4. | Spandana (Twitching) | No Twitching | 0 |
| | | Sometimes for 5-10 minutes | 1 |
| | | Daily for 10-30 minutes | 2 |
| | | Daily for 30-60 minutes | 3 |
| | | Daily more than 1 hour | 4 |

Table No.02: showing grading of subjective variables (Kaphaja symptoms)

| S.No. | Kaphaja symptoms | | Score |
|-------|------------------|---------------|-------|
| 1. | Aruchi | No anorexia | 0 |
| | | Mild anorexia | 1 |

| | | | |
|-----------|--------------------------------|----------------------|----------|
| | (Anorexia) | Moderate anorexia | 2 |
| | | Severe anorexia | 3 |
| 2. | Tandra (Drowsiness) | No Tandra | 0 |
| | | Mild Tandra | 1 |
| | | Moderate Tandra | 2 |
| | | Severe Tandra | 3 |
| 3. | Gaurava (Heaviness) | No Gaurava | 0 |
| | | Mild Gaurava | 1 |
| | | Moderate Gaurava | 2 |
| | | Severe Gaurava | 3 |
| 4. | Agnimandhya | No Agnimandhya | 0 |
| | | Mild Agnimandhya | 1 |
| | | Moderate Agnimandhya | 2 |
| | | Severe Agnimandhya | 3 |

Table No.03: showing grading of objective variables

| S.No. | Tests | | Score |
|-----------|---|--|----------|
| 1. | S.L.R. Test¹⁵ (Sakthini kshe pam nigraha) | > 90 | 0 |
| | | 71 – 90 | 1 |
| | | 51 – 70 | 2 |
| | | 31– 50 | 3 |
| | | Up to 30 | 4 |
| 2. | Walking Dis- tance | Patient can walk upto1km without pain | 0 |
| | | Patient can walk upto500 meters without pain | 1 |
| | | Patient can walk upto250 meters without pain | 2 |
| | | Patient feels pain on standing | 3 |
| | | Patient cannot stand | 4 |

Further assessment - Patients were evaluated for severity of illness before and after the intervention, on the basis of:

- Greenough and Fraser scoring method for pain assessment (G & F scale)
- Visual Analogue Scale (VAS)

Follow up –30 days and on every fortnight.

E) Laboratory parameters:-

- 1) Routine hematological investigations to rule out any infectious conditions.
- 2) Radiological examination (X-Ray) /MRI (Optional) of the lumbo sacral spine.

F) Analysis & Statistical Methods to be used

Observation documented during study was analyzed and findings were evaluated by using statistical analysis to establish the efficacy. Mean, improvement

percentage, \pm S.D., \pm S.E., 't' and 'p' values were calculated. Non-parametric, Paired 't' test, unpaired 't' test and one tailed p value were used for calculating the 't' value, carried out at the level of 0.05, 0.01, 0.001 & 0.0001 of p levels in both the groups.

Observations and Results

In current study, total 37 patients were registered for the present study, among them 30 patients (15 in each group) have completed their treatment and remaining 07 (06-Group A & 01-Group B) patient Left against Medical Advice.

Majority of the patients i.e. 45.95% patients were having *Vata-Kapha* dominant *Tridoshaja Prakriti* and 40.54% patients were having *Vata* dominant *Tridoshaja Prakriti*, Maximum numbers of

patients i.e. 59.46% were of *Vata-kaphaja* type of *Gridhrasi*, 62.16% patients were having involvement of Right limbs, 40.54% patients were of 1-2 year chronicity, 59.46% patients were having history of any type of trauma as associated symptoms and 36.67% patients were having habitual constipation. Diminished Knee jerk was present in 59.46% of the patients and diminished ankle jerk was present in 29.73% of the patients.

In current study, *Ruka* (pain along sciatic nerve distribution) and SLR test positive were found in all the patients i.e. 100%. 64.49% patients were having complaint of *Toda*. *Stambha* was present in 75.68% patients whereas *Spandana* was present in 51.35% patients. *Aruchi*, *Tandra*, *Gaurava* and *Agnimandya* were present in 64.86%, 29.73%, 45.95% and 67.57% of patients respectively.

Table No.04 showing effect of Therapy on Subjective Variables (*Vataja* Symptoms)

| Groups | | Observations | | | Statistical Analysis | | | | |
|---|----|--------------|---------|-------|----------------------|-------|-------|---------|--------------|
| | n | BT Mean | AT Mean | Diff | % change | SD | SE(+) | p value | Significance |
| The effect of Therapy on <i>Ruka</i> | | | | | | | | | |
| A | 15 | 3.2 | 1.133 | 2.067 | 64.583 | 0.594 | 0.153 | <0.0001 | E.S |
| B | 15 | 3.4 | 1.000 | 2.333 | 68.628 | 0.724 | 0.187 | <0.0001 | E.S |
| A vs. B | | | | | | | | 0.1663 | N.S |
| The effect of Therapy on <i>Toda</i> | | | | | | | | | |
| A | 10 | 1.6 | 0.5 | 1.1 | 68.750 | 0.316 | 0.1 | 0.0010 | H.S |
| B | 10 | 1.9 | 0.4 | 1.5 | 78.947 | 0.707 | 0.224 | 0.0010 | H.S |
| A vs. B | | | | | | | | 0.0668 | N.S. |
| The effect of Therapy on <i>Stambha</i> | | | | | | | | | |
| A | 13 | 2.077 | 0.692 | 1.385 | 66.667 | 0.506 | 0.140 | 0.0001 | E.S. |
| B | 11 | 2.546 | 0.727 | 1.818 | 71.429 | 0.751 | 0.226 | 0.0005 | E.S. |
| A vs. B | | | | | | | | 0.0730 | N.S. |
| The effect of Therapy on <i>Spandana</i> | | | | | | | | | |
| A | 07 | 1.286 | 0.143 | 1.143 | 88.889 | 0.378 | 0.143 | 0.0078 | H.S |
| B | 08 | 1.375 | 0.250 | 1.125 | 81.818 | 0.355 | 0.125 | 0.0039 | H.S |
| A vs. B | | | | | | | | 0.5000 | N.S. |

Table No.05 showing effect of Therapy on Subjective Variables (*Kaphaja* Symptoms)

| | n | BT Mean | AT Mean | Diff. | % change | SD | SE(+) | p value | Significance |
|---|----|---------|---------|-------|----------|-------|-------|---------|--------------|
| The effect of Therapy on <i>Aruchi</i> | | | | | | | | | |
| A | 07 | 1.714 | 0.429 | 1.286 | 75.00 | 0.488 | 0.184 | 0.0078 | H.S |
| B | 12 | 1.583 | 0.250 | 1.333 | 84.211 | 0.492 | 0.142 | 0.0002 | E.S |
| A vs. B | | | | | | | | 0.4375 | N.S. |
| The effect of Therapy on <i>Tandra</i> | | | | | | | | | |
| A | 05 | 2 | 0.6 | 1.4 | 70.00 | 0.548 | 0.245 | 0.0313 | S |

| | | | | | | | | | |
|---|-----------|-------|-------|-------|--------|-------|-------|--------|------|
| B | 05 | 1.4 | 0.2 | 1.2 | 85.714 | 0.447 | 0.200 | 0.0313 | S |
| A vs. B | | | | | | | | 0.3002 | N.S |
| The effect of Therapy on Gaurava | | | | | | | | | |
| A | 07 | 1.571 | 0.286 | 1.286 | 81.818 | 0.488 | 0.184 | 0.0078 | H.S |
| B | 08 | 1.25 | 0.125 | 1.125 | 90.00 | 0.354 | 0.125 | 0.0039 | H.S |
| A vs. B | | | | | | | | 0.2525 | N.S. |
| The effect of Therapy on Agnimandhya | | | | | | | | | |
| A | 08 | 2.0 | 0.500 | 1.500 | 75.00 | 0.535 | 0.189 | 0.0039 | H.S |
| B | 08 | 1.5 | 0.333 | 1.167 | 77.778 | 0.577 | 0.167 | 0.0005 | E.S. |
| A vs. B | | | | | | | | 0.1135 | N.S. |

Table No.06 showing effect of Therapy on Objective Variables

| Groups | | Observations | | Statistical Analysis | | | | | |
|--|-----------|--------------|---------|----------------------|----------|-------|-------|---------|--------------|
| | n | BT Mean | AT Mean | Diff. | % change | SD | SE(+) | p value | Significance |
| The effect of Therapy on S.K.N/ S.L.R. Test | | | | | | | | | |
| A | 15 | 2.867 | 1.333 | 1.733 | 60.465 | 0.704 | 0.182 | <0.0001 | E.S. |
| B | 15 | 3.333 | 1.133 | 2.200 | 66.00 | 0.561 | 0.145 | <0.0001 | E.S. |
| A vs. B | | | | | | | | 0.0285 | S. |
| The effect of Therapy on Walking Distance | | | | | | | | | |
| A | 15 | 2.067 | 0.533 | 1.533 | 74.194 | 0.516 | 0.133 | <0.0001 | E.S. |
| B | 15 | 2.867 | 0.667 | 2.200 | 76.744 | 0.775 | 0.200 | <0.0001 | E.S. |
| A vs. B | | | | | | | | 0.0082 | H.S. |
| The effect of Therapy on pain, on the basis of Greenough and Fraser scale | | | | | | | | | |
| A | 15 | 20.533 | 37.067 | 16.60 | 80.84 | 3.851 | 0.994 | <0.0001 | E.S |
| B | 15 | 20.80 | 38.933 | 18.13 | 87.18 | 3.204 | 0.827 | <0.0001 | E.S |
| A vs. B | | | | | | | | 0.1730 | N.S |
| The effect of Therapy on the basis of Visual Analogue Scale | | | | | | | | | |
| A | 15 | 8.20 | 2.80 | 5.40 | 65.853 | 0.910 | 0.235 | <0.0001 | H.S |
| B | 15 | 8.333 | 2.133 | 6.20 | 74.40 | 1.082 | 0.294 | <0.0001 | H.S |
| A vs. B | | | | | | | | 0.0202 | S. |

*E.S-Extremely significant, H.S-Highly significant, S-Significant, N.S-Non-significant

Effect of therapy on sign & symptoms-

Results in each group were produced by using, nonparametric, paired t-test, one tailed p value & Wilcoxon rank sum test (no Gaussian assumption) while on comparison of group B with group A, then nonparametric, unpaired t-test, one-tailed P value and Mann-Whitney test were applied.

In current study, in Group A, (i.e. Basti without Vamana Karma) marked significant results were found in all clinical

feature of the disease. Extremely significant result was found in Ruka, Stambha S.L.R. Test and Walking Distance. Highly Significant result was found in Toda, Spandana, Aruchi, Gaurava and Agnimandya,. Significant result was found in Tandra While in Group B (i.e. Basti after Vamana Karma) also marked significant results were found in all clinical feature of the disease. Extremely significant result was found in Ruka, Stambha S.L.R. Test, Aruchi, Agnimandya, and Walking Distance. Highly Significant result was found in Toda, Spandana, Gaurava and Significant result was found in Tandra.

On the basis of improvement in objective variables such as Greenbush and Fraser scale for pain assessment both the groups shows extremely significant result while visual analogue Scale for pain, both the groups shows highly significant results. In current study, Group A shows result on the basis of VAS, in which maximum patients i.e. 80.00% moderate Improvement were found while 13.33% patients had mild Improvement and 0.067% patients got marked improvement. In this Group no any patient was completely cured while in Group B result on the basis of VAS, maximum patents 53.33% moderate improvement were found while 0.067% patients had mild Improvement and 26.67% patients got marked improvement. In this Group 13.33% patients was completely cured.

Recurrences were also found in some patents after 2-3 month from completion of therapy. It was found more in Group A i.e. 3 patients (20%) while in Group B only 13.33% recurrence were found in patients. Overall 16.67% of patients were shows recurrence of disease while 83.33% patients show no recurrence. Overall effects of therapies on the basis of subjective criteria's Group A shows 70.62% improvement and Group B shows 80.34% improvement and overall effects of therapies on the basis of Objective criteria's Group A shows 63.21% improvement and Group B shows 69.01% improvement.

DISCUSSION

Probable mode of action of Basti in Gridhrasi

Basti is claimed to be useful in various nervous system disorders. The Basti Karma exerts a more systemic action besides exerting local action probably operating through large intestine involving Enteric Nervous System. Apart from its influence on Gastro-Intestinal System, En-

teric Nervous System also influences the Autonomic Nervous System thereby producing systemic effects.¹⁶ VrishadiNiruha-Basti had provided relief in cardinal symptom, associated symptoms and general symptoms of the disease. It is thought to be an ultimate solution for eradication of VataDosha and Vata vitiation that is the main cause of Gridhrasi. Basti not only have localized action, but the active principles (virya) of Basti drugs are absorbed and through channels of the body it reaches at the site of lesion and bring about systemic action and relieves the disease.¹⁷

The effect of Basti can be summarized as encolonic (action on tissue of colon), endocolonic (action inside colon), and diacolonic (for systemic action). Thus Basti Dravya after reaching to large and small intestine get absorbed from intestine, now due to Guna of the Basti Dravya, it breaks the obstructions and expels out the morbid material from all over the body¹⁸ (Srotoshodhana), thus help in breaking down the pathogenesis of disease. Here Anuvasana Basti were used so as to avoid the vitiation of Vata due to continuous use of VrishadiNiruhaBasti. Basti help in Vatanulomana thus helping correcting the Apana vayu. Action of Basti directly pacifies Apana Vayu which in turn brings back the equilibrium of Agni which controls two other important Vayu- Samana Vayu & Prana Vayu. Thus, beyond the local effects, the Basti gives an overall effect by maintaining Agni and Vayu all over the body thereby brings the patient to a physiological harmony. Basti relieves Ruka, Toda, Stambha etc. It is very effective in those conditions where Vata aggravated in shakha/extremities.^[14]

It is assumed that the prescribed line of treatment have contributed for reducing the inflammation and for giving

strength to the nerves and muscles of the affected area which may be the reason for relief of symptoms. It is known that the prolapse occurred by the rupture of annulus fibroses in intervertebral disc prolapse can be corrected by shrinkage and fibrosis of the extended disc material and not by its reposition within the disc.¹⁹

Probable mode of action of Vamana Karma in Gridhrasi

In *vata-kaphaja* Gridhrasi, Vamana plays important role in subsiding the *kaphaja* symptoms such as *Aruchi*, *Tandra* etc. Vitiated *Kapha* is eliminated from the body through upper channel. After completion of *Vamana Karma*, *Ja haragni* and *Dhatwagni* increased and well powered in their own places. Increase in *Agni* results in digestion of *Ama* and their elimination since presence of *Ama* leads to different types of inflammatory and painful conditions in the body that were subsided through *Vamana karma*.

Due to *Vamana Karma*, the antigens which causing inflammatory changes in body especially in vertebral column region mixed / dissolved with *snehadravya* and comes in *koshtha* and finally expelled out during *Vamana Karma*. When these antigens comes out from body, the process of inflammation will reduced that results in relaxation of nerves which were compressed due to inflammation.

CONCLUSION

In the current study, both the procedures were effective in combating the disease. Major improvement was observed on all signs and symptoms as well as on SLR test in both the groups. On comparing the overall effect of the therapies, Group B i.e. *Basti* after *Vamana Karma* proved to be more effective than Group A i.e. only *Basti*. It is due to *Vata* and *Kaphashamana* and also potentiating *Agni*. Hence gave good results in both *Vataja* as well as

Vata-kaphaja type of *Gridhrasi*. Overall effects of therapies on the basis of subjective criteria's Group A shows 70.62% improvement and Group B shows 80.34% improvement and overall effects of therapies on the basis of Objective criteria's Group A shows 63.21% improvement and Group B shows 69.01% improvement.

Finally, it concluded that, although *Basti* (Group A) had given good results, but *Basti given after Vamana Karma* (Group B) provided better relief in the amelioration of signs and symptoms. According to *Cakradutta* "*Nadau Bastividhim kuryada yavadurdhve na shudhyati*" *Basti* given after *Vamana Karma* is more effective than *Basti* given without *Amana Karma* to different extents in the overall recovery of the patient. Present study reveals that, the selected management has potential effect on *Gridhrasi* (Sciatica), with the added advantage of being free from side effects. Preventive aspect and patient's education also play an important role in the management of *Gridhrasi*. Proper guidelines about postures etc. along with exercises strengthening the spine are helpful for effective management.

REFERENCES

1. Clarke JA, van Tulder MW, Blomberg SE, et al. Traction for low-back pain with or without sciatica, *Cochrane Database Systematic Review*.2007 ;(2):CD003010.
2. Younes M, Bejia I, Aguir Z, Letaief M, Hassen-Zroer S, Touzi M, et al. Prevalence and risk factors of disc-related sciatica in an urban population in Tunisia. *Joint Bone Spine* 2006;73:538-42.
3. Weber H, Holme I, Amlie E, The natural course of acute sciatica with nerve root symptoms in a double-blind placebo-controlled trial evaluating the ef-

- fect of piroxicam. *Spine (Phila Pa 1976)* 1993;18:1433-1438
4. Tulder M, Peul W, Koes B. Sciatica: what the rheumatologist needs to know. *Nat Rev Rheumatol.* 2010; 6:139-145. doi: 10.1038/nrrheum.2010.3.
 5. Legrand E, Bouvard B, Audran M, Fournier D, Valat JP. Sciatica from disk herniation: medical treatment or surgery? *Joint Bone Spine*, 2007;74:530-535. doi: 10.1016/j.jbspin.2007.07.004.
 6. Agnivesha, Charaka, Dridhabala, Charaka samhita, Chikitsa Sthana, *Vatavyadhi Chikitsa Adhyaya*, 28/56-57, with 'Vidyotini' Hindi commentary, Kashinath Shastri, edited by Gangasahaya Paeya, Vol-2, Chaukhambha Sanskrit Sansthan, Varanasi, 2007;787-788
 7. Dhanwantri, Sushruta, Nagarjuna, Sushruta Samhita, Nidana Sthana *Vatavyadhi nidana*, 1/74 with "Ayurveda Tatvadipika", Hindi commentary, Ambikadatta Shastri, Vol-1 Chaukhambha Sanskrit Sansthan, Varanasi, 2009; 303.
 8. Klaus Buckup, Clinical Tests for the Musculoskeletal System, edition 2004; *Spine*; 22-58
 9. Ibidem (8) Caraka Samhita, Siddhi Sthana, *Kalpna Siddhi Adhyaya* 1/32-34, 39-40; 970-971.
 10. Ibidem (8) Caraka Samhita, Siddhi Sthana, *Bastisutriya Siddhi Adhyaya* 3/28, 31-33; 995-998
 11. Ibidem (10) Sushruta Samhita, Chikitsa Sthana. *Niruhakrama Chikitsa* 38/67-70; 213-214.
 12. *Yogaratanakarawith 'Vidyotini'* Hindi commentary, Sh. Laxmipati Shastri, *Vatavyadhi Chikitsa*, Chaukhambha Sanskrit Sansthan, Varanasi, Edition (VII) 2002; 154
 13. Ibidem (8) Caraka Samhita, Siddhi Sthana, *Kalpna Siddhi Adhyaya*, 1/10-12; 961.
 14. Dhiman SK, Sharma Srinivas, *To assess the comparative efficacy of katibasti and basti Karma in the management of Gridhrasi (w.s.r to sciatica)* 2011 NIA, Jaipur
 15. Fausi AS, Braunwald E, Kasper DL, Hauser SL et al. Harrison's Principles of internal medicine, Part 2; *cardinal manifestations and presentation of disease; Back & neck Pain* 1/16, John W. Engstrom, Edition-XVII. pp108 DOI: 10.1036/0071466339
 16. Singh RH, Panchakarma Therapy, *Guidelines of Standardization*, Chaukhambha Sanskrit series office, Varanasi, 2005; 13; 362
 17. Ibidem (10) Sushruta Samhita, Chikitsa Sthana, *Netrabastipramanaprabhaga Chikitsa* 35/27; 192
 18. Ibidem (8) Caraka Samhita, Siddhi Sthana, *Kalpna Siddhi Adhyaya*, 1/40-41; 971-972.
 19. Nair P.K.S., Madhavikutty P., Nambodiri P.K.N. Tewari N.S. *Therapeutic effect of vaitarana vasti in IVDP with Sciatica and related problems*, *J.R.A.S. Vol. XXII No. 3-4 (2001)* pp. 120-130.

CORRESPONDING AUTHOR

Sanjay Kumar

Assistant Professor, Deptt. of Panckakarma SSSb Ayurvedic college, K. Renwal, Jaipur, Rajasthan, India

Email: drsanjay@gmail.com

Source of Support: Nil

Conflict of Interest: None Declared