

EVALUATION OF THE EFFECT OF SVADAMSTRADI TAILA MATRAVASTI IN THE MANAGEMENT OF GRIDHRASI VATA (SCIATICA SYNDROME)

Abhishek Bhattacharjee¹ P. Murali Krishna²

Abhishek Bhattacharjee, Lecturer, Department of Panchakarma, Govt. Ayurvedic College, Guwahati, Assam, India

P. Murali Krishna, Reader, Post Graduate Department of Panchakarma, S. V. Ayurvedic College, Tirupati, Andhra Pradesh, India.

ABSTRACT

Gridhrasi (Sciatica syndrome) is one of the commonest vatic disorders we come across in our day-to-day clinical practice. Incidence is going high day by day due to improper diet habits, faulty postures, and lack of physical exercise, sleep disturbances and mental stress. The cardinal features include pain, pricking sensation, stiffness and repeated twitching observed sequentially in the buttocks, low back, and thigh, back of knee, calf region and foot with restricted lifting of the affected leg. Though incidence is more but there is no satisfactory treatment available in contemporary medical system. In Ayurveda different treatment modalities has been mentioned for this condition. As Vasti is the best treatment modality for vatic disorders so, present oil for Matravasti has been selected from Vangasena samhita. In the present single blind clinical study with pre-test and post-test design, 40 patients suffering from Gridhrasi has been selected after initial screening and Matravasti of Svadamstradi taila was administered for 14 days uninterruptedly. Patients were observed for a total follow-up period of 30 days with three stages of assessment on 0, 15th & 30th day. The assessment of results was made by adopting the standard methods of international scoring including pain, neurological deficit, functional ability, functional disability and also selective signs and symptoms. After statistical evaluation significant improvement was observed in the parameters which indicate the effectiveness of Svadamstradi taila Matravasti in the management of Gridhrasi.

Keywords: Gridhrasi (Sciatica syndrome), pricking sensation, Matravasti.

INTRODUCTION

Health is the supreme foundation for the achievement of happy life. Ayurveda is one of the most ancient medical sciences of the world dedicated for the promotion of health, prevention and cure of disease since time immemorial⁽¹⁾. According to Ayurveda simple freedom from the diseases cannot be considered as health. To become healthy, a person should be happy both mentally and physically other than being simply free from disease or in-

firmity⁽²⁾. Change in the life style of stressful and competitive modern man has created disharmony in his biological system. With busy professional and social life, improper posture, continuous strenuous work, over exertion, jerky movements during travel and sports create biodynamic changes in the weight bearing spinal column. This may cause variety of pain causing spinal disorders. Among them low backache and Sciatica are very common

which lead to the major loss of working hours of professionally active population⁽³⁾. According to Ayurveda, imbalance in the equilibrium of Tridoshas (Vata, Pitta and Kapha) is termed as Disease⁽⁴⁾. Among the Tridoshas, Vata is responsible for all chesta or kinetic functions⁽⁵⁾. Ayurvedic classics have given due importance and attention to Vata in the management of diseases, as having the prime regulator of various activities of body and active factor in causing disease⁽⁶⁾. Many younger and older populations are falling prey to various types of Vatic disorders due to their erroneous diet and life style. Gridhrasi (Sciatica syndrome), which is considered as one of the Vatic disorders⁽⁷⁾, very commonly seen in clinical practice and the incidence is expected to be increasing through the coming years due to erroneous diet habits, faulty postures, lack of physical exercise, sleep disturbances and mental stress. The term Gridhrasi indicates the typical gait that resembles of Gridhra i.e. vulture. The cardinal features of Gridhrasi are pain, pricking sensation, stiffness and repeated twitching observed sequentially in the buttocks, low back, and thigh, back of knee, calf region and foot⁽⁸⁾ with restricted lifting of the affected leg⁽⁹⁾. The most common disorder which affects the movement particularly in the most productive period of life is low back pain, out of which 40% of patients will have radicular pain and this comes under the umbrella of Sciatica-syndrome. Sciatic neuralgia is a condition in which pain begins in the low back (lumbar region) and radiates along with the distribution of sciatic nerve i.e. the postero-lateral aspect of thigh and leg up to foot⁽¹⁰⁾. In this condition patient walks with difficulty and there is a restricted lifting of the leg (or legs). Herniation and degenerative changes in the in-

tervertebral discs are the common causes⁽¹¹⁾. There is often history of trauma, lifting of heavy objects, prolonged working in forward bending position and continuous standing postures, but in many of the cases the actual causative factor remains unknown.

In modern contemporary medicine, use of analgesics and physiotherapy are the only conservative remedies, observed with unsatisfactory results. Ayurvedic classics have described schedule of treatment for Gridhrasi with drugs, diet, Panchakarma and para-surgical procedures and some of them are proved to be effective by clinical trials. Vastikarma is one of such therapies, which has statistically significant relief when compare with other procedures in the management of Gridhrasi. The selected Vasti formula is such that it has five easily available ingredients with Vata pacifying property, simple to prepare and also cost effective.

MATERIALS METHODS:

Svadamstradi taila: Svadamstradi taila mentioned in Vatavyadhi Adhikara of Vangasena Samhita⁽¹²⁾ (an Ayurvedic classical text of medicine), has been selected for the study because no clinical research has been reported on it so far in Sciatic neuralgia. The oil selected for Matravasti contains five simple ingredients with Vata pacifying property. The oil for the present clinical study is prepared under strict GMP specifications and expert technical supervision in TTD's Sri Srinivasa Ayurveda Pharmacy, Srinivasamangapuram, Chittoor, AP.

The following are the ingredients with proportion:-

1. Gokshura kwatha (Decoction of *Tribulus terrestris*) - 12.8 Parts
2. Tila taila (Gingili oil) - 12.8 Parts
3. Go kshira (Cow's milk) - 12.8 Parts

4. Sringavera kalka (paste of green Zinziber officinale) - 1 part
5. Guda (Jaggery) - 4 parts

Methods:

Source of data: The patients attending the OPD and IPD of Panchakarma department of S.V. Ayurvedic Hospital, Tirupati, A.P. were screened and registered for the study after fulfilling the inclusion and exclusion criteria. A detailed history taking and physical examination were carried out in these patients. The clinical data along with the elaborated assessment questionnaires of pain, neurological deficit, functional ability and functional disability were recorded in the specially designed case proforma.

Inclusion criteria:

- Age between 18 to 60 years.
- Low back pain radiating to lower limb.

Exclusion criteria: Diabetes mellitus, severe metabolic disorders, Hypertension, Psychiatric disorder, Pott's spine, Space occupying lesions of brain, Malignancy, Post spinal surgical cases, Epilepsy and all other diseases that needs regular medication.

- **Investigations:** Hemogram, selective biochemical tests, Renal Function Test, Liver Function Test, Lipid Profile, Routine and Microscopic examination of Urine and Stool, Plain X-Ray of Lumbo-sacral spine in Antero-posterior (AP) and Lateral views and CT Scan / MRI of Lumbosacral Spine were carried out before treatment to exclude other conditions.

- **Assessment criteria:** Patients were observed for 30 days. Assessment was done initially on '0' day i.e., before the medical intervention, on 15th day i.e. just after the completion of Vasti and finally on the 30th day. Assessment was done based on the severity of pain, angle of SLRT and with the following Quality-of Life (QoL) scoring methods – 1. ABERDEEN LOW BACK PAIN DISABILITY SCALE 2. MODIFIED OSWESTRY LOW BACK PAIN DISABILITY QUESTIONNAIRE. Objective measures do not always correlate with subjective experiences^(13,14). So to assess the functional impact of Sciatica and the effect of treatment on patients, the valid Quality-of-Life scores^(15,16) were applied on 0, 15th & 30th day.

- **Statistical analysis:** Statistical significant test was performed by Paired t-test. Graph Pad in Stat software was used for Statistical Analysis.

RESULTS: The assessment of results was made by adopting the standard international scoring methods include the assessment of pain neurological deficit, functional ability and functional disability along with signs and symptoms.

1. Effect on Pain: Significant relief of pain was seen when evaluated on the 15th day and on 30th day.

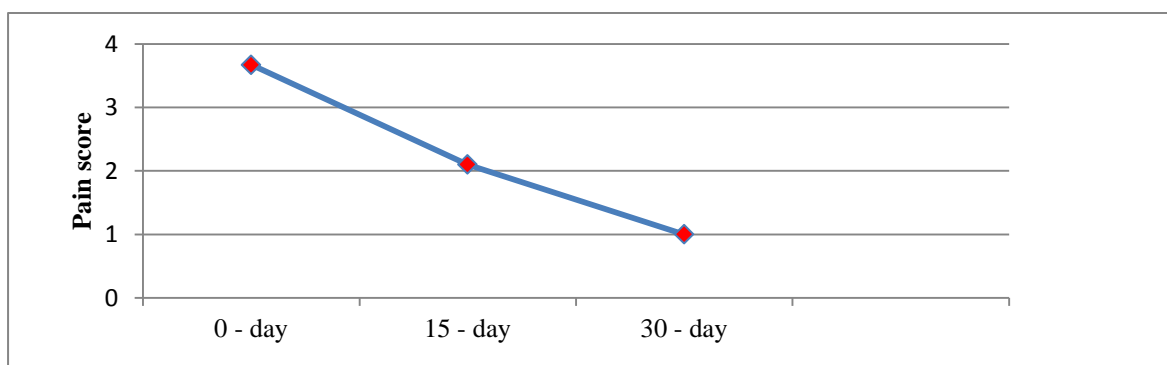
Table: 1. Effect of Matravasti in terms of Pain on 15th day

MEAN ± SD		MD	P Value	Remark
0 – Day	15 th – Day			
3.67 ± 0.4795	2.10 ± 0.9595	1.57	P<0.001	***

Table: 2. Effect of Matravasti in terms of Pain on 30th day

MEAN ± SD		MD	P value	Remark
0 – Day	30 th – Day			

3.67 ± 0.4795	1 ± 0.8710	2.67	P<0.001	***
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Graph 1: Improvement in pain by Matravasti on 15th and 30th day

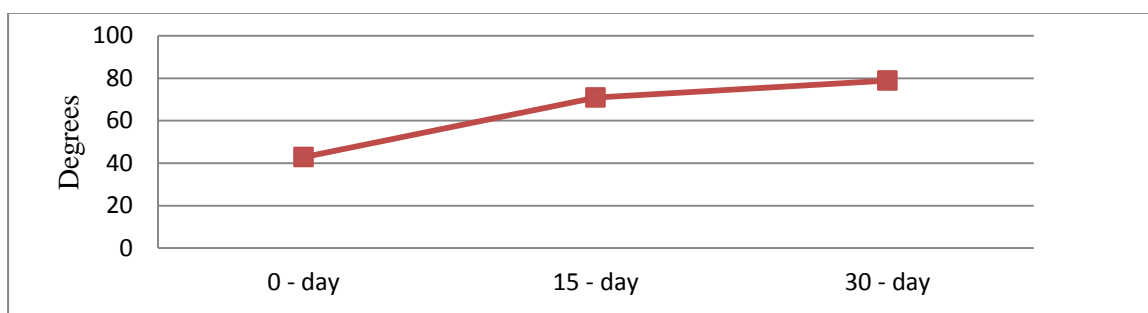
1. **Effect on Straight Leg Raising Test (SLRT):** The effect on SLRT after the treatment on the 15th and 30th day was highly significant.

Table 3: Effect of Matravasti in terms of SLRT on 15 day

MEAN ± SD		MD	P value	Remark
0 - Day	15 th - Day			
42.83±12.98	70.83±13.20	28	P<0.001	***

Table 4: Effect of Matravasti in terms of SLRT on 30th day

MEAN ± SD		MD	P value	Remark
0 - Day	30 th - Day			
42.83±12.98	78.83±8.38	36	P<0.001	***



Graph 2: Improvement in SLRT by Matravasti on 15th and 30th day

3. **Effect on MODIFIED OSWESTRY LOW BACK PAIN QUESTIONNAIRE Score:** The effect of Matravasti on the MODIFIED OSWESTRY LOW BACK PAIN QUESTION-

NAIRE Score after the treatment on the 15th and 30th day was highly significant.

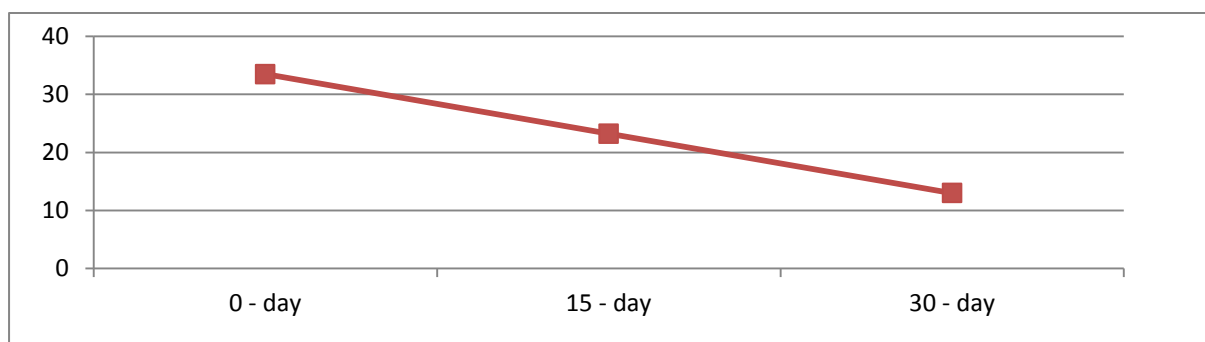
Table 5: Effect Matravasti in terms of 'MODIFIED OSWESTRY LOW BACK PAIN AND DISABILITY QUESTIONNAIRE' score on 15th day

MEAN ± SD		MD	P value	Remark
0 - Day	15 th - Day			
33.47±5.050	23.23±4.819	10.24	P<0.001	***

Table 6: Effect Matravasti in terms of 'MODIFIED OSWESTRY LOW BACK PAIN AND DISABILITY QUESTIONNAIRE' score on 30th day

MEAN ± SD		MD	P value	Remark
0 - Day	30 th - Day			
33.47±5.050	23.23±4.819			

33.47±5.050	13.00±4.441	20.47	P<0.001	***
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Graph 3: improvement in 'MODIFIED OSWESTRY LOW BACK PAIN AND DISABILITY QUESTIONNAIRE' score by Matravasti on 15th and 30th day

after the treatment on the 15th day is significant. The reduction of pain is highly significant on 30th day.

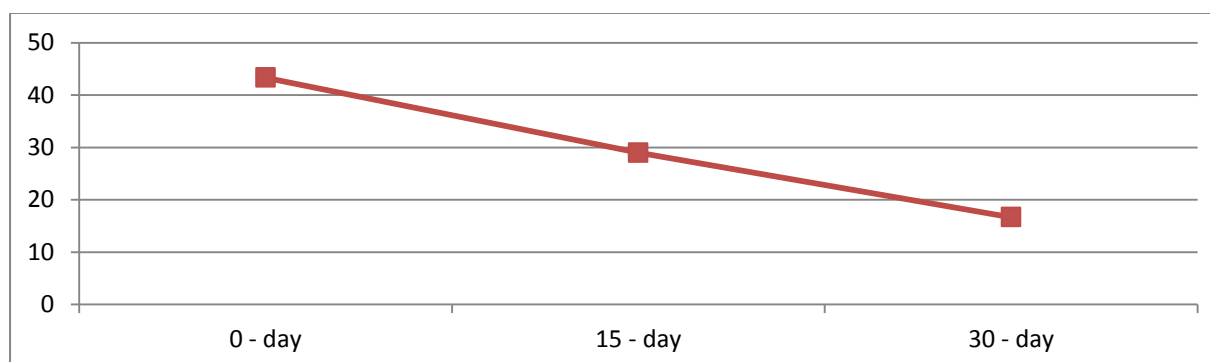
4. Effect on ABERDEEN LOW BACK PAIN Scale: The effect of Matravasti on ABERDEEN LOW BACK PAIN Scale Score

Table 7: Effect of Matravasti in terms of 'ABERDEEN LOW BACK PAIN SCALE' Score on 15th day

MEAN ± SD		MD	P value	Remark
0 - Day	15 th - Day			
43.3±4.589	29.00±5.711	14.33	P<0.001	***

Table 8: Effect of Matravasti in terms of 'ABERDEEN LOW BACK PAIN SCALE' Score on 30th day

MEAN ± SD		MD	P value	Remark
0 - Day	30 th - Day			
43.33±4.589	16.67±4.816	26.66	P<0.001	***



Graph 4: Improvement in 'ABERDEEN LOW BACK PAIN SCALE' Score On 15th and 30th day

lysed statistically and significant improvement was found. No major adverse or side effects were encountered during this treatment period.

CONCLUSION

vadamstradi taila (Vatavyadhi adhikara of Vangasena Samhita) is selected for Matravasti in the present study to evaluate its efficacy in the management of Gridhrasi. The observations and results were ana-

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CORRESPONDING AUTHOR:

Dr. Abhishek Bhattacharjee

Lecturer, Dept. of Panchakarma
Govt. Ayurvedic College, Guwahati,
Assam, India

Email: drabhishekb@gmail.com

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