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# Management of Sciatica (Gridhrasi) through Marma Chikitsa—A Pilot Study for a Randomized Clinical Trail

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### Abstract

In our daily therapeutic practise, vata vyadhi is one of the most common health issues, and Gridhra is one of them. It is characterised by discomfort in the buttock, thigh, leg, or foot that is searing, stinging, or numbing. Low back discomfort may or may not be related to it. Gridhrasi appears to affect both the sedentary and physically demanding patient types. Marma Chikitsa is the art of treating certain vital points to re-channelize the Prana (vital force in the body). Touching a Marma point changes the body's biochemistry and can unfold radical, chemical change in one's makeup. Stimulation of these inner pharmacy pathways signals the body to produce certain neurochemicals that heals the body and mind. The Marma Chikitsa was performed in which Pada Kshipra Marma, Pada Talahridaya Marma, Gulpha Marma, Indravasti Marma, Ani Marma, Janu Marm, Urvi Marmas was manipulated. 10 patients with symptoms of Gridhrasi and fit for Marma chikitsa were chosen. Marma chikitsa was performed on lower limb and lower back region twice a day. The patient data was evaluated before the Marma chikitsa, and after the completion of 45 days and on 15th day as a follow up routine. The findings were statistically tabulated using paired 't' test.

**Keywords:** Sciatica, Gridhrasi, Marma chikitsa, pain.

### Introduction

Sciatica is characterized by radiating leg pain along the course of the sciatic nerve sometimes accompanied by back pain and neurological deficits [1]. The prevalence ranges from 1.2 to 43% globally based on controversial definitions [2]. Lumbar disc herniation is the leading cause of 85% of patients with sciatica [3]. Sciatica affects daily life and productivity and consumes more health resources when compared to low back pain [4].

Conservative treatments are the first-line options for sciatica [5,6]. Medicine and epidural steroid injection are commonly used although long-term benefits are uncertain and side effects (e.g., headache and dizziness) or complications (e.g., epidural hematoma) occur sometimes [7-9]. Most pain and related disabilities could resolve in weeks [5], but up to 30% of patients were reported with pain lasting for 1 year or longer [10]. Therefore, long-term effective and safe conservative treatments might be potential solutions.

According to Acharya Charaka, two types of Gridhrasi have been listed Vataj and Vatakaphaja. Pain starts from Sphik (buttock) and then radiates to Kati, Prushta (back), Uru

(thigh), Janu (knee), Jangha (calf) and Paada (foot) along with Stambha (stiffness) Ruka (pain), Toda (pricking sensation) and Spandana (twitching) are the signs and symptoms of Vataj Gridhrasi. While Aruchi (anorexia), Tandra (drowsiness) and Gaurava (heaviness) are the additional symptoms which are found in Vatakaphaja Gridhrasi. [11] Ancient Acharyas have given the name Gridhrasi it may because of patient's gait became similar to the gait of the Gridhra (eagle) [12] Gridhrasi is Shoolpradhana Nanatmaja Vata vyadhi. [13]. The most important symptom of sciatica is lumbosacral radicular leg pain that follows a dermatomal pattern radiating below the knee and into the foot and toes. Sciatica most commonly occurs when a herniated disc, bone spur on the spine or because of the narrowing of the spine (spinal stenosis) compresses part of the nerve. This causes inflammation, pain and often some numbness in the affected leg. [14]

Marma Chikitsa is the art of treating certain vital points to re-channelize the Prana (vital force in the body). Touching a Marma point changes the body's biochemistry and can unfold radical, chemical change in one's makeup. Stimulation of

these inner pharmacy pathways signals the body to produce certain neurochemicals that heals the body and mind [15].

**Methods**

From the OPD and IPD of Pandit Khushilal Shirma govt. Ayurvedic Medical College and Hospital, Bhopal (MP), a total of 10 patients who met the inclusion criteria and displayed the typical Sciatica (Gridhrasi) signs and symptoms were chosen

**Inclusion Criteria**

- i). Patients of either sex in the age group of 20 to 60 years.
- ii). Clinical presentation of *Gridhrasi*
- iii). Positive SLR Test
- iv). Tenderness of the Sciatic Nerve course

**Exclusion Criteria**

- i). Patient with co-morbidities/major illness.
- ii). Trauma.
- iii). Patients with haematological/bleeding disorders

**Study Design**

10 patients diagnosed with sciatica were treated with Marma *Chikitsa* Twice a day

**Duration:** 45 days

**Follow-up:** 15<sup>th</sup> day

**Assessment Criteria**

Subjective and objective parameters were assessed and result were tabulated and subjected for statistical analysis.

**Criteria for Evaluation**

The key signs and symptoms of the condition that were used to assess the patient's progress. For the purpose of evaluating the impact of therapy, each sign and symptom was given a rating system depending on the intensity of that sign or symptom. The scoring scheme is detailed below

**Table 1:** *Ruka* (Pain) Showing the grading of *Ruka* (Pain)

<i>Ruka</i> (Pain)	Grade
No Pain	0
Mild pain but no difficulty in walking	1
Moderate pain and slight difficulty in walking	2
Severe pain with severe difficulty in walking	3

**Table 2:** *Stambha* (Stiffness) Showing the grading of *Stambha* (Stiffness)

<i>Stambha</i> (Stiffness)	Grade
No stiffness	0
Sometime for 5-10 minutes	1
Daily for 10-30 minutes	2
Daily for 30-60 minutes more than 1 hrs.	3

**Table 3:** *Toda* (Pricking pain) Showing the grading of *Toda* (Pricking pain)

<i>Toda</i> (Pricking Pain)	Grade
No pricking pain	0
Mild pricking pain	1
Moderate pricking pain	2
Severe pricking pain	3

**Table 4:** *Spandana* (Pulsation) Showing the grading of *Spandana* (Pulsation)

<i>Spandana</i> (Pulsation)	Grade
No Pulsation	0
Sometimes for 5-10 minutes	1
Daily for 10-30 minutes	2
Daily for 30-60 minutes	3

**Table 5:** *Suptata* (Numbness) Showing the grading of *Suptata* (Numbness)

<i>Suptata</i> (Numbness)	Grade
No Numbness	0
Sometime once in a day for 5-10 minutes	1
Daily once in a day for 10-30 minutes	2
Daily for 30-60 minutes	3

**Showing Grading of Kaphaja Symptoms**

**Table 6:** *Tandra* (Drowsiness) Showing the grading of *Tandra* (Drowsiness)

<i>Tandra</i> (Drowsiness)	Grade
No <i>kaphaja</i> symptoms	0
Mild symptoms	1
Moderate symptoms	2
Severe symptoms	3

**Table 7:** *Gaurava* (Heaviness) Showing the grading of *Gaurava* (Heaviness)

<i>Gaurava</i> (Heaviness)	Grade
No any <i>kaphaja</i> symptoms	0
Mild symptoms	1
Moderate symptoms	2
Severe symptoms	3

**Table 8:** *Arochaka* (Anorexia) Showing the grading of *Arochaka* (anorexia)

<i>Arochaka</i> (Anorexia)	Grade
No any <i>kaphaja</i> symptoms	0
Mild symptoms	1
Moderate symptoms	2
Severe symptoms	3

**Showing Grading of Other Clinical Parameters**

**Table 9:** Straight Leg Raising Test (SLRT) showing the grading of Straight Leg Raising Test (SLRT)

Test	Angle	Grade
<i>Sakthini Ksheparn Nigraha</i> SLR Test (Straight Leg Raising Test)	> 90 degree	0
	71-90 degree	1
	51-70 degree	2
	31-50 degree/below degree	<30 3

**Table 10:** Walking time (Time taken to cover 20 meters) showing the grading of Walking Time

Walking Time	Grade
Up to 20 seconds	0
21-40 seconds	1
41-60 seconds	2
Above 60 seconds	3

**Treatment Plan**

The Marma chikitsa was performed in which following Marmas were stimulated. (*kipra, talhridaya, gulpha, indravasti, janu, ani, urvi, nitamb, kukundar, katiktaran Marma*) [16, 17, 18, 19, 20]

- According to their anatomical location of Marma points, every Marma point has stimulated by pulp of thumb for 15-18 times on an average in single sitting, twice a day.
- A steady and moderate pressure will be applied by pulp of thumb slowly and gently.
- Pressure will be increased gradually depending upon patient strength.

**Observation and Result**

In the current study, a maximum of 85% of patients were Hindu, 70% were between the ages of 20 and 60, 50% were from the middle class. 40% of patients had bilateral and right limb involvement, 50% had vatakaphaja prakriti, and 60% had krura koshta. All had histories lasting less than three years. Five of the patients identified as Nidanakatha Ruksha Ahara and katu tikta ahara, Ativyayama, Vishamashana, and vegasandharana was evident. All patients did not experience any significant complications. Effectiveness of Marma chikitsa was evident in reducing the symptoms of Gridhrasi. According to this study, Gridhrasi symptoms significantly improve after Marma chikitsa and after follow-up, as demonstrated in the following table. It was discovered that out of 10 patients, 6 showed marked reliefs, 3 patients showed moderate relief and 1 patients showed mild relief after Marma chikitsa.

**Table 11:** Statistical analysis of 10 patients subjected for Marma chikitsa (Before treatment and on 45<sup>th</sup> day after receiving Marma chikitsa

Sr. No.	Clinical Features	Mean		Mean diff.	% Relief	S.D	'p' value	Significance
		BT	AT					
1	Stambha	2.600	0.4000	2.200	84.61	0.5164	0.020	YES
2	Ruka	2.000	0.200	1.800	90	0.4216	0.0020	YES
3	Toda	2.400	0.6000	1.800	75	0.5164	0.020	YES
4	Spandana	2.200	0.7778	1.333	60.45	0.8333	0.0313	YES
5	Suptata	2.100	0.8000	1.300	61.90	0.7888	0.0156	YES
6	Tandra	2.100	0.5000	1.600	76.19	0.5270	0.0039	YES
7	Gaurva	1.900	0.5000	1.400	73.68	0.5270	0.0039	YES
8	Aruchi	2.600	0.4000	2.200	84.61	0.5164	0.020	YES
9	Slr	2.100	0.5000	1.600	76.19	0.5270	0.0039	YES
10	Walking time	2.600	0.4000	2.200	84.61	0.5164	0.020	YES
11	Bregards sign	1.900	0.5000	1.400	73.68	0.5270	0.0039	YES

**Table 12:** Overall effect of therapy before Marma chikitsa and after completion of Marma chikitsa

Cured	Criteria	No. of patients
Marked improvement	>75%-<100%	6
Moderate improvement	>50%-<75%	3
Mild improvement	>25%-<50%	1
No improvement	<25%	0

**Discussion**

Marma points, vital spots on the body linked to Prana and Vata, play a crucial role in treatment. Stimulating these points

with appropriate pressure can lead to biochemical changes in the body, restoring Vata to its natural state and alleviating symptoms like pain, pricking sensations, and stiffness. This approach can serve as an alternative to surgery. Patients underwent Marma Chikitsa, with manipulation of specific Marma points (Kshipra, Talahridaya, Gulpha, Indravasti, Janu, Ani, and Urvi) every other day for 45 days. The treatment resulted in significant improvements: 90% reduction in pain (Ruja), 70% improvement in stiffness (Stambha), 80% reduction in pricking sensations (Toda), and 95% improvement in both the straight leg raise (SLR) test and Braggard’s test.

The mechanism of sciatica may relate to the distortion of the nerve roots and effect of local inflammatory cytokines. Marma chikitsa is known to exert an analgesic effect through inhibiting cytokine production and activate sympathetic nerve fibers to increase endogenous opioids. It may normalize default mode network activity and modulation of descending pain processing that help treat sciatica.

Marma Chikitsa works by precisely touching specific points at critical moments, which is an essential aspect of Pranic healing. This process connects Prana with Vata Dosha, which relates to deep seated, chronic and degenerative diseases like Gridhrasi. It is one of the safest, non-invasive, and cheapest therapy among all. Also this therapy has no side effects and no any preparation is required before therapy. It even satisfies the Sushruta’s concept of “Hastamaeva Pradhantamam Yantram”. By the use of appropriate pressure over these Marma points, these vital and powerful points can be stimulated leading to biochemical changes in brain as well as in the body, resulting in suppression of the symptoms like Ruja, Toda, Stmabha etc. The result is supposed to be immediate and long lasting

The feasibility and efficacy of marma chikitsa for sciatica will be evaluated in this study. Marma sthanas are selected based on literature and practical experiences from experts. Our limitations include that we use a subjective primary outcome, while VAS is the commonest method for measuring pain. Based on practical conditions, marma chikitsak could not be blinded in this trial but communications will be limited to minimize the impact. Outcomes of this pilot study will be used as evidence for a further RCT subsequently.

**Conclusion**

Gridhrasi, a Shoolpradhan Vatavyadhi, commonly affects middle-aged and older adults, as well as individuals in certain occupations. Marma Chikitsa has been found to be significantly effective in managing all aspects of Gridhrasi (Sciatica). This treatment is cost-efficient, safe, and beneficial, enhancing the patient's quality of life.

The mentioned clinical investigation was conducted to ascertain how Marma chikitsa affected the treatment of pain, pricking, and heaviness in Gridhrasi. Patients showed 84.61% improvement in stambha, 75% improvement in toda, 60.45% improvement in spandana, 90% got pain relief, 73.68% showed reduction in gaurava, 76.19% showed relief in SLR test and 73.68% improvement in Bregard’s test. Thus, the evidence points to Marma chikitsa efficacy in reducing stambha, spandana and pain in Gridhrasi. To generalise its efficiency in Gridhrasi in a broad sample scale, more research is required

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