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Role of siravyadha in gridhrasi (sciatica): A pilot study

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Abstract---In our daily therapeutic practise, vitavyadhi 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. Siravyadha is stated in the Chikitsasutra of Gridhrasi by CharyaCharaka, Sushruta, VagbhataYogratnakara, and Bhela. A proper siravyadha manifests as lightness in the painful areas of the body, a decrease in pain, a lessening in vyadhi intensity, and a joyful disposition. Siravyadha is typically performed when a disease has a prominently painful symptom. A study was created to assess the effectiveness of siravyadha in Gridharasi. The goal of the study was to determine how well Siravyadha managed the symptoms of Gridhrasi. 10 patients with symptoms of Gridhrasi and fit for Siravyadha were chosen. Siravyadha was performed after dravasnigdhayavagupana along with sthanikasnehana and swedana were incorporated and samyakstravitalakshanas were observed. The patient data was evaluated before the siravyadha procedure, immediately after the procedure and on 10th day as a follow up routine. The findings were statistically tabulated using paired ‘t’ test.

Keywords---Gridhrasi, Sciatica, Siravyadha, stambha, toda, spandana, ruk.

Introduction

The two types of therapies for ill conditions that Ayurveda describes are called Shodhana (elimination) and Shaman (alleviation) karma. The Panchakarma (five therapy methods) included in Shodhana are used to purify the body by removing the vitiated dosha of the body. One of the Panchakarma and parasurgical procedures outlined by Acharya Sushruta is raktamokshan. A special parasurgical technique called raktamokshan is recommended for a variety of disorders in which the tridoshas Vata, Pitta, or Kapha have vitiated the rakta. The act of releasing polluted blood from the body is referred to as raktamokshan (Ambikadatta Shastri, 2016).

Most Raktamokshan is classified into two categories. Sastra & Sastra Once more, there are two categories for applying shastra: Pracchana and Siravyadha, and there are four categories for applying ashastra. Alabu (Kapha), Jalukavacarana (Pitta), Shringa (Vata), and the Gati yantra (Ibidem, 25 and 26). Among these, Siravyadha is said beardhachikitsa. Gridhrasi is created by adding "Din" pratyaya to the word "Gridhraus," from which it is derived (Raja Radha Kanta, 1987). The disease was given the name Gridhrasi because the patient's gait changes as a result of his legs being tight and slightly curled from discomfort, mimicking the walk of a vulture (Gridhra). The bottom region of the body, where sthanasamshraya occurs, produces khavaigunya from excessive walking and vehicle use, which results in Gridhrasi. It falls under the category of 80 nanatamaj vatavyadhi (Jadavaji Trikamji Acharya, 1994) and is characterised by Stambha (stiffness), Ruk (pain), Toda (pricking pain), and spandana (frequent tingling) (foot) (Jadavaji Trikamji Acharya, 1994). According to a different method described by Acharya Sushruta, pain begins in the parshni and guli regions and progresses upward from there. Vagbhata shared Acharya Sushruta's viewpoint.

Tissue trauma is the primary cause of pain in sciatica. Leg discomfort, tingling, numbness, or weakness that starts in the lower back and travels down each leg's big sciatic nerve and down the buttocks (Wikipedia). There is a 50–60% lifetime incidence of low back pain, and a greater than 40% lifetime incidence of sciatica. However, only 4–6% of people get sciatica brought on by lumber disc prolapsed (Jortho.org). Although Ayurveda recognises this illness as kruchrasadhya, it successfully halts the disease's continuous development.

One of the satisfactory answers for Gridhrasi was given by Siravyadha, which was mentioned by numerous Acharya, including Charak, Sushruta, Vagbhat, Chakradatta, and Yogratnakar with various sites for Siravyadha. Bhela claimed that Gridhrasi responds well to Raktamokshan. All ailments will be treated by Siravyadha alone, just as rice and other crops in the field will totally dry out by removing the field bunds. So, after providing the patient six days of shaman chikitsa, we chose to perform Siravyadha on the patients of gridhrasi at the place four angulas above Janu Pradesh of the left leg. And the results were assessed before the procedure of siravyadha, after the procedure of siravyadha and on the 10th day after the procedure. This treatment had a very favourable outcome.

Methods

From the OPD and IPD of Jain AGM Ayurvedic Medical College and Hospital, Varur-Hubballi (Karnataka), a total of 10 patients who met the inclusion criteria and displayed the typical Gridharasi signs and symptoms were chosen.

Inclusion Criteria:

1. Patients within 20 to 60 years of age.
2. A notable signs and symptoms like Ruk, Toda, Spandana, Gaurava were selected.
3. A positive result of SLR Test, Lasegue's test.
4. Patients fir for Siravyadha.

Exclusion Criteria:

1. Patients with co-morbidities/major illness.
2. Trauma.
3. Patients with haematological/bleeding disorders.

All patients were subjected for routine blood investigations including CT, BT and a written consent was obtained.

Methodology

Study Design

All patients were subjected for dravasnigdhayavagupana before the procedure of siravyadha and sthanika abhyanga with Pinda Nilagiritaila and sthanikaswedana. Siravyadha at antarakandaragulpha was performed and the patients were evaluated for change in clinical features were assessed. And also a follow up on 10th day from the day of siravyadha was also assessed.

Assessment criteria

Subjective and Objective Parameters were assessed and results 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:

1. Sthambha
 - a. No Stiffness - 0
 - b. Mild Stiffness - 1
 - c. Moderate Stiffness - 2
 - d. Severe Stiffness - 3

2. Ruk
- | | | |
|--|---|---|
| a. No Pain | - | 0 |
| b. Painful, walks without limping | - | 1 |
| c. Painful, walks with limping but without support | - | 2 |
| d. Painful, walks only with support | - | 3 |
| e. Painful, Unable to walk | - | 4 |
3. Toda
- | | | |
|--------------------------------|---|---|
| a. No Pricking sensation | - | 0 |
| b. Mild Pricking sensation | - | 1 |
| c. Moderate Pricking sensation | - | 2 |
| d. Severe Pricking sensation | - | 3 |
4. Spandana
- | | | |
|-----------------------|---|---|
| a. No Twitching | - | 0 |
| b. Mild Twitching | - | 1 |
| c. Moderate Twitching | - | 2 |
| d. Severe Twitching | - | 3 |
5. Gaurava
- | | | |
|-----------------------|---|---|
| a. No Heaviness | - | 0 |
| b. Mild Heaviness | - | 1 |
| c. Moderate Heaviness | - | 2 |
| d. Severe Heaviness | - | 3 |
6. SLR Test
- | | | |
|--------------------------------------|---|---|
| a. Negative | - | 0 |
| b. 60 Degree and above | - | 1 |
| c. In between 30 degree to 60 degree | - | 2 |
| d. Less than 30 degree | - | 3 |
7. Lasegue's Sign
- | | | |
|------------|---|---|
| a. Absent | - | 0 |
| b. Present | - | 1 |

Observations and results

In the current study, a maximum of 90% of patients were Hindu, 70% were between the ages of 20 and 60, 60% were from the middle class. 40% of patients had bilateral and right limb involvement, 50% had vatakaphaja prakriti, and 60% had krurakoshta. All had histories lasting less than three years. Five of the patients identified as Nidanataha Rukshaaahara and katutiktaaahara, Ativyayama, Vishamaasana, and vegasandharana was evident. Fast blood flow was prevalent during Siravyadha, with an average raktavisravan of 88 ml for each patient. All patients did not experience any significant complications.

Effectiveness of Siravyadha was evident in reducing the symptoms of Gridhrasi. According to this study, Gridhrasi symptoms significantly improve after Siravyadha and after follow-up, as demonstrated in the following table. It was discovered that out of 10 patients, 2 showed marked reliefs, 5 patients showed

moderate relief and 3 patients showed mild relief immediately after Siravyadha procedure. And 9 patients showed a remarkable improvement, and 1 had mild improvement on 10th day of follow up.

Table No. 1 – Statistical analysis of 10 patients subjected for Siravyadha (Before treatment and immediately after receiving Siravyadha)

Clinical Features	Mean		Mean Diff.	% Relief	S.D	'p' value	P	Significance
	B.T	A.T						
Stambha	0.27	0.03	0.24	88.8	1.41	0.0020	<0.05	YES
Toda	0.28	0.15	0.13	46.42	0.7	0.0078	<0.05	YES
Spandana	0.27	0.03	0.24	88.8	1.41	0.0020	<0.05	YES
Ruk	0.25	0.14	0.11	44	0.63	0.0313	<0.05	YES
Gaurava	0.25	0.15	0.1	40	0.56	0.0156	<0.05	YES
SLR Test	0.25	0.16	0.09	36	0.56	0.0224	<0.05	YES
Lasegue's Test	0.10	0	0.1	100	0.63	<0.0001	<0.0001	YES

Chart No. 1 – Graphical representation of Statistical analysis of 10 patients subjected for Siravyadha (Before treatment and immediately after receiving Siravyadha)

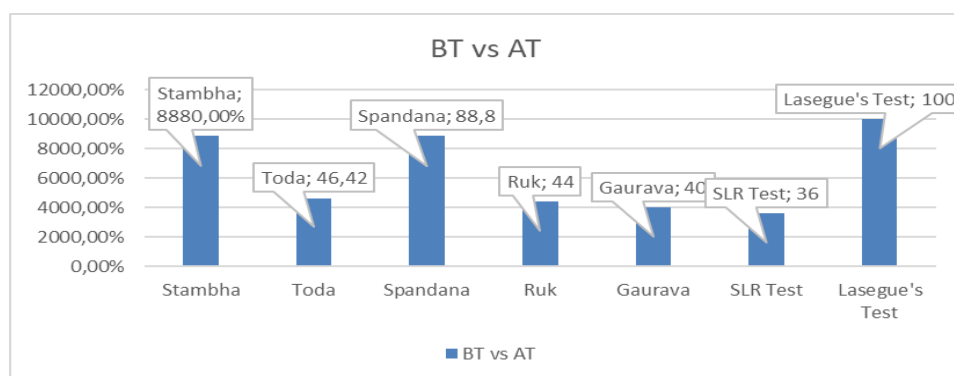


Table No. 2 – Statistical analysis of 10 patients subjected for Siravyadha (Before treatment and on 10th day of follow up)

Clinical Features	Mean		Mean Diff.	% Relief	S.D	'p' value	P	Significance
	B.T	10 th Day						
Stambha	0.27	0.03	0.24	88.8	1.41	0.0020	<0.05	YES
Toda	0.28	0.02	0.26	92.85	1.55	0.0020	<0.05	YES
Spandana	0.27	0.02	0.25	92.59	1.48	0.0020	<0.05	YES
Ruk	0.25	0.03	0.22	88	1.27	0.0020	<0.05	YES
Gaurava	0.25	0.02	0.23	92	1.34	0.0020	<0.05	YES
SLR Test	0.25	0.03	0.22	88	1.27	<0.0001	<0.05	YES
Lasegue's Test	0.18	0	0.18	100	0.63	<0.0001	<0.05	YES

Chart No. 2 – Graphical representation of Statistical analysis of 10 patients subjected for Siravyadha (Before treatment and on 10th day of follow up)

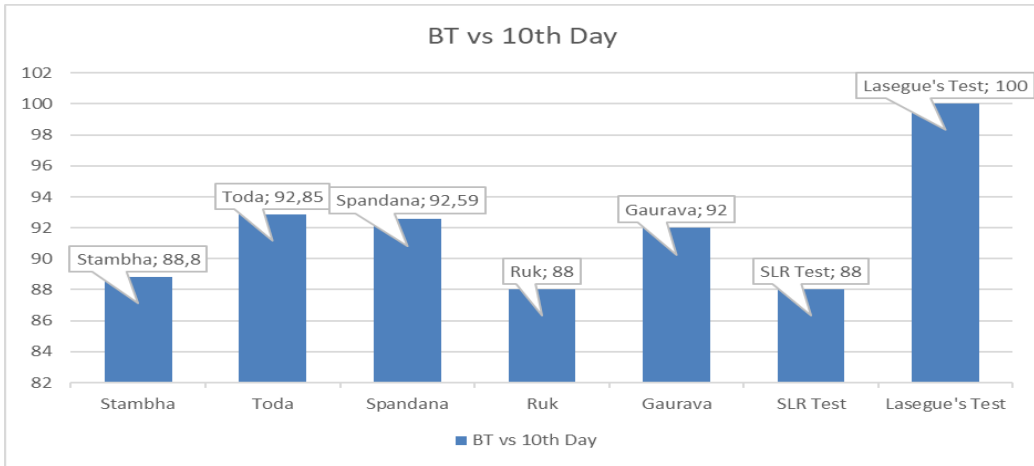


Table No. 3 - Overall Effect of therapy before Siravyadha and immediately after Siravyadha

Relief	Criteria	No. of Patients
No relief	< 25%	0
Mild relief	25% to 50%	3
Moderate relief	51% to 75%	5
Marked relief	> 75%	2

Chart No. 3 – Graphical representation of overall Effect of therapy before Siravyadha and immediately after Siravyadha

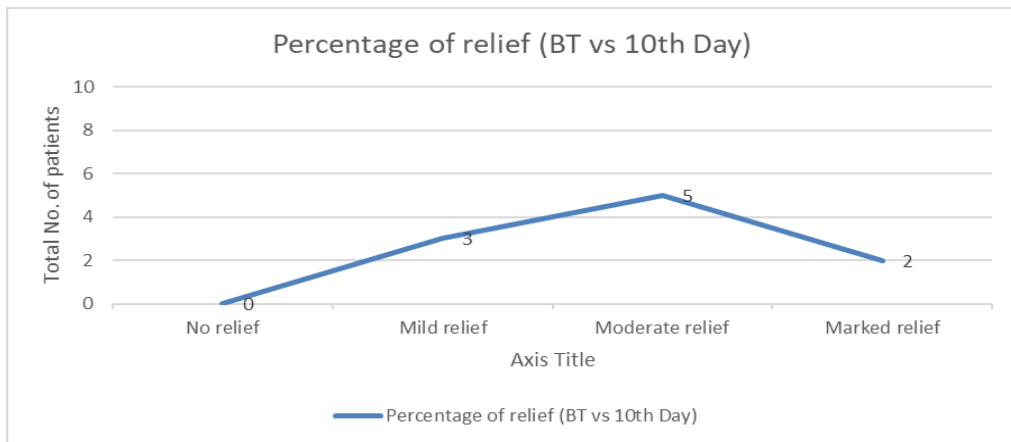
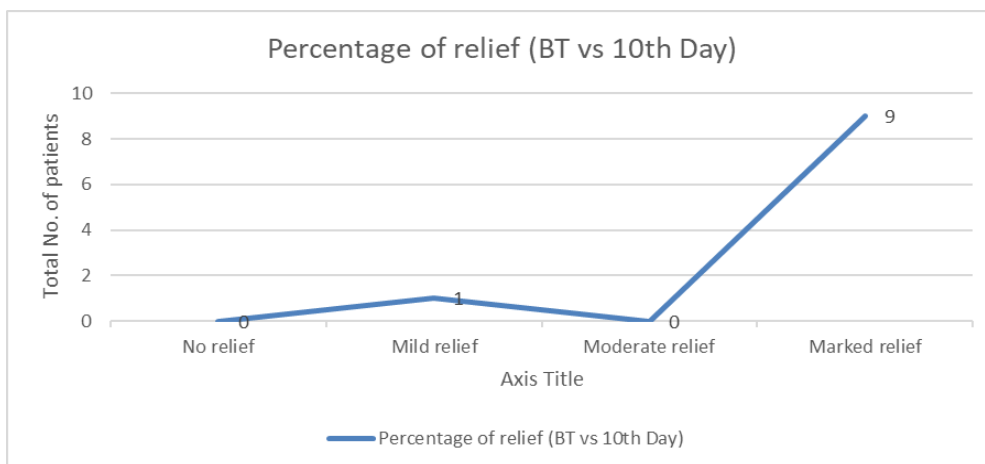


Table No. 4 - Overall Effect of therapy before treatment and on 10th day of follow up

Relief	Criteria	No. of Patients
No relief	< 25%	0
Mild relief	25% to 50%	1
Moderate relief	51% to 75%	0
Marked relief	> 75%	9

Chart No. 4 – Graphical representation of overall Effect of therapy before Siravyadha and immediately after Siravyadha



Discussion

Gridhrasi is such a condition, which originates in the lumbar region, specifically in Sphika and Katii and Pakvashaya. Gridhrasi is referred to in the classics as a distinct clinical entity and is one of the 80 forms of VataVikara. The lumbar spine is where the most expensive orthopaedic condition in the human body is located, according to industrialised nations. Sciatica or sciatic syndrome is a condition that is similar to Gridhrasi in modern medicine. In sciatica, there is pain along the sciatic nerve's path, which starts in the lower back and travels through the back of the thigh and calf before ending at the outside of the foot (Parmar, S. N., 2022).

The most frequent causes are disc herniation and degenerative changes. Trauma such as spine twisting, carrying heavy objects, or exposure to cold which are frequently present in the past. The disease's impairment limits the patient's capacity to carry out daily tasks and renders them disabled.

स्नेहादिभिःक्रियायोगेर्नतथात्पेनैरपि।

यान्त्याशुव्याधयःशान्तिंयथासम्यक्सिराव्यधात्।।२२।।(Su Sha 8/22)

When managing Gridhrasi, Acharya Charaka discussed Siravyadha, BastiKarma, and Agnikarma. The ailments indicated by Acharya Sushruta are not alleviated by Snehana or Lapanadi treatment procedures in certain circumstances. Emergency management Siravyadha to produce better results in cases of Gridhrasi.

सिराव्यधश्चिकित्सार्थशल्यतन्त्रेप्रकीर्तितः |

यथाप्रणिहितःसम्यग्बस्तिःकायचिकित्सिते | २३ | |(Su. Sha. 8/23)

As basti in Kayachikitsais regarded as ardhachikitsa, the same way Siravyadha is regarded as ardhachikitsa in Shalya Tantra.

नर्तदेहःकफादस्तिनपितान्नचमारुतात् |

शोणितादपिवानित्यंदेहएतैस्तुधार्यते | ४ | |(Su. Su. 21/4)

Therefore, to preserve health or to cure disease, Dushita (vitiated) Rakta from the associated Siras (veins) should be released.

सम्यग्गत्वायदारक्तंस्वयमेवावतिष्ठते |

शुद्धंतदाविजानीयात्सम्यग्विस्रावितंचतत् | ३२ | |

लाघवंवेदनाशान्तिर्व्याधेर्वेगपरिक्षयः |

सम्यग्विस्रावितेलिङ्गंप्रसादोमनसस्तथा | ३३ | |(Su. Su. 14/32-33)

Samyak Siravyadha can be used to treat disorders where pain, pricking, and heaviness predominate because it has the symptoms of Laghavam (Body and painful area) and Vedanashanti (pain reduction), which mean that the pain from a medical condition becomes better followed by a reduction in the symptoms of the disease (Naguib, P. R., 2022).

Conclusion

The aforementioned clinical investigation was conducted to ascertain how Siravyadha affected the treatment of pain, pricking, heaviness in Gridharasi. Patients showed 88.8% improvement in stambha, 46.42% improvement in toda, 88.8% improvement in spandana, 44% got pain relief, 40% showed reduction in gaurava, 36% showed relief in SLR test and 100% improvement in Lasegue's test. Thus, the evidence points to siraveda's efficacy in reducing stambha, spandana and pain in Gridharsi. To generalise its efficiency in Gridharasi in a broad sample scale, more research is required.

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