



Case Study

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MANAGEMENT OF GRIDHRASI (SCIATICA) THROUGH RAKTAMOKSHANA BY USING GHATI YANTRA: A CASE STUDY

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ABSTRACT

More than three-quarters of the world's population suffers from Gridhrasi (sciatica), which has a substantial incidence rate. It is characterized by the onset of ruja (pain), toda (pricking), and stambha (stiffness), initially in sphika (gluteal region) and then radiating distally to kati-prishtha (low back), janu (knee), jangha (thigh) till pada (feet). The patients suffering from Gridhrasi have restricted movements due to painful limbs, affecting their daily routine activities. It can be correlated with sciatica. Here is the case of 48 years old female suffering from pain in the lumbar region and radiating to right lower extremities along with tingling and numbness, difficulty walking, for the last 3 years with increasing severity. The patient was diagnosed with a case of Gridhrasi. The patient was treated with Ghati yantra raktamokshana shows a significant result. It can have a long-lasting result, a safe, cost-effective, and less invasive treatment modality in Gridhrasi may reduce the intensity of ruja, toda, sthambha and thereby it may improve the quality of life.

Keywords: Sciatica, Gridhrasi, Ghati yantra, Raktamokshana.

INTRODUCTION

In developed countries, human sedentary lifestyles have created several disharmonies in biological systems. Factors like improper sitting postures in work areas, jerky movements during travelling etc lead to low back pain. Low back pain is the most reported musculoskeletal problem in elderly adults. Sciatica has been reported to occur in 1 to 10 % of the population ¹. The recurrence rate is about 72-90 % within six months with non-surgical or conservative care and within a year, there is a 15-35% chance of recurrence of pain.² Sciatica prevalence from different studies ranged from 1.2% to 43%.³

Gridhrasi

In Ayurveda, Gridhrasi is one among the Vataja nanatmaja vyadhi according to Charaka.⁴ The symptoms of Gridhrasi are pain starting from sphik to parshni prathyanguli and it is manifested by the affliction of two kandara in the leg. It is of two types, Vataja in which pain will be severe and Vata Kaphaja in which sthambha or stiffness is the predominant feature.

The line of management of Gridhrasi according to Ayurved is Basti karma, Siravedha and Agni karma (between kandara and gulpha) (Cha Chi 28 / 101) So Raktamokshana is choice of treatment as it involved snayu and Rakta dhatu.

Sciatica

Based on symptoms, Gridhrasi can be equated with the disease Sciatica in modern science. Sciatica is a type of radiculopathy. It

is a term often used to describe low back pain that spreads (radiates) through the hip, to the back of the thigh, and down the inside of the leg generally intensifying the suffering. Symptoms of sciatica include pain that spreads (radiates) along the sciatic nerve from the lower back, through the hip, into the thigh, down the inside of the leg, and to the foot. Sciatic pain can range from severe, sharp, shooting pain to a dull ache.⁵ In modern medicine, conservative treatment provides short-term relief in pain whereas surgical intervention provides varying relief associated with significant side effects.

Raktamokshana

Raktamokshana is one of the shodhana procedures. It is less interventional, economical, provides immediate symptomatic relief, and is associated with the least adverse effects when compared to the prolonged usage of NSAIDs. Raktamokshana by Siravyadha has been explained by Acharya Sushruta in the treatment of Gridhrasi as vitiated dosha affects the kandara which is the upadhatu of Rakta and Ghati yantra is indicated in avaghadathara raktadushti.⁶ Ghati yantra can be a simple and effective treatment and it may reduce the symptoms of Gridhrasi.⁷

CASE REPORT

A 48-year-old female patient visited Ayurveda college, panchakarma OPD presented with C/o of pain and tingling sensation in the right lower extremity, low back pain, and difficulty in walking for 3 years. Physical examination revealed stability of all vital functions. A straight leg raising test (SLRT) of the right leg was performed by the patient actively and it was

noticed painful at 55 degrees while for the left leg, it was not painful and can be raised to 90 degrees.

During detailed history taking, it was found that she was a known case of hypertension for the last 4 years and taking treatment for the same. No other family history was found. She had worked as a social worker and had to travel long distances. All routine investigations were performed and found within normal limits.

Study was carried out per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants. The study was carried out per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

Diagnosis

Based on clinical presentation and SLR test, the patient was diagnosed with a case of sciatica. From the Ayurveda perspective, she was diagnosed as a case of Gridhrasi.

MATERIALS AND METHODS

Apparatus used for cupping.

- Ghati yantra – according to size
- Hand gloves
- Surgical blade no.18
- Sterile dressing
- Duration of study: 10 days
- Raktamokshana was done on sphika (gluteal region) or kati (low back region) with the help of 18 no. surgical blade and appropriate size of Ghati yantra in 3 settings (0th, 5th,10th)
- Centre of study: OPD of Ayurved College
- The study was carried out as per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

Procedure

Purva karma

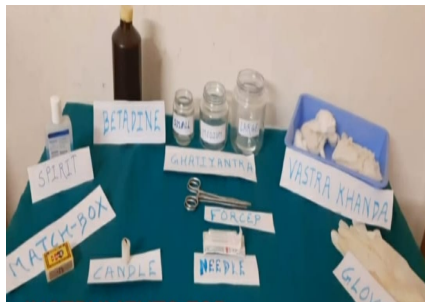
- Informed consent was taken.
- The site of raktamokshana was selected and disinfected with spirit solution, and the vacuum was created with the appropriate size of Ghati yantra.

Pradhana karma

- On selected and disinfected areas 3–4 pricks were given with the help of 18 number needle which leads to pinpoint bleeding.
- Then, the Ghati yantra was wiped from the inside with spirit gauze and heated with matchstick which was then quickly placed on the bleeding points.
- As the Ghati yantra was flamed inside, it creates a vacuum because of the consumption of oxygen by the flame which raises the local area to form a bulge, and oozing of the blood occurs.
- It was kept in the same position till the blood flow stops and blood clots, after which Ghati yantra was removed and the area was cleaned with a sterile gauze piece.

Paschata karma

- A ring-shaped mark left by the removed Ghati yantra was massaged by a gentle hand, and the patient was instructed to take rest.
- The patient was called back twice, with a 5-day gap between visits, for follow-up. (On 5th and 10th days)
- During the follow-up appointments, patients were also checked to see if their SLR test results had improved since using the Ghati yantra.



Instruments



Cleaning the site



Pricking on site



Placing Ghata yantra (glass Jar)

Assessment Criteria

- Subjective symptoms reported by the patients were scored and evaluated by Ghati yantra before and after they underwent Raktamokshana.
- A SLR test was conducted for objective metrics, and the angle using a goniometer was recorded for comparison.

OBSERVATION

Table 1: Clinical features: Before and after treatment

Criteria	Before Treatment	After Treatment
Ruka	+++	No pain
Toda	+++	++
Stambha	+++	+
SLRT	55 degree	80 degree



SLRT Before Treatment



SLRT After Treatment

RESULT AND DISCUSSION

From an Ayurvedic point of view, Vata dosha is a primary factor of pain in any type of disease. It becomes aggravated either due to dhatu kshaya or due to margavarodha. In case of Gridhrasi, Kapha dosha, in its vitiated form, obstructs in the minute channels causing srotabarodha. So Vata dosha is aggravated in the body, thereby increasing pain in the body. Acharya Charaka has described Siravyadha in the management of Gridhrasi. Acharya Sushruta has mentioned that diseases, which are not relieved by snehana, lepanadi therapeutic measures can be treated with Siravyadha as an emergency management. The researchers used Siravyadha to let out Rakta dhatu along with vitiated doshas and reported that Siravyadha gives spontaneous relief in the cardinal symptoms of Gridhrasi due to the release of impurities or doshas from the affected area. Similarly in the present study vitiated doshas along with Rakta dhatu were let out by pricking with a needle on the affected area, The vacuum created by the Ghati yantra helps the vitiated blood to ooze out. which gives spontaneous relief from symptoms of Gridhrasi due to the release of doshas with the blood from the body.

Modern concept

- Patho- physiological studies suggest that in case of (>100 ml) considerable blood loss, immediate Haemo dilution Stimulates the body's alert mechanism.
- Psycho-neuro-endocrinal mechanism mediated by Hypothalamus, pituitary and endocrine axis is triggered and responds with commanding actions through efferent signals to the vascular System. Local metabolism improved, drainage system improved, fresh RBC is produced which are active.

Mode of action of Ghati yantra according to Modern Point of view

Ghati yantra targets soft tissue by applying local pressure to pain points and areas of swelling. It helps extract blood from the body, which may be harmful, and overcome the potential adverse effects, leading to physiological well-being. Vitiated doshas responsible for the sciatica along with Rakta dhatu (blood) were let out by pricking with a needle on the affected area and the vacuum created by Ghati yantra helps the vitiated blood to ooze out which gives spontaneous relief from symptoms of Gridhrasi due to release of doshas through blood from the body.^{8,9} It is thought to act mainly by increasing local blood circulation and

relieving painful muscle tension. It mainly involves improving microcirculation, promoting capillary endothelial cell repair, and accelerating granulation and angiogenesis in the regional tissues. This helps in normalizing the patient's functional state and progressive muscle relaxation.¹⁰ Ghati yantra Raktamokshana has shown positive results in the pain management of Gridhrasi.

CONCLUSION

Sciatica is a major cause of morbidity that makes a person to be disabled from daily activities. This case study shows that the Ghati yantra Raktamokshana is very effective in the management of Gridhrasi. It has given significant improvements in subjective and objective parameters indicating that the patient has improved in presenting the features and significant improvement found in the patient's quality of life. With the use of Ghati yantra, there can be immediate and lasting pain relief until the forthcoming dosha dushti. It can have a long-lasting result, a safe, cost-effective, and less invasive treatment modality in Gridhrasi may reduce the intensity of ruja, toda, spandhana, sthambha and thereby it may improve the quality of life. To validate results, some randomized clinical studies with sizable sample sizes are conducted.

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