

STUDY OF ETIOLOGICAL FACTORS (AHARAJ AND VIHARAJ) OF GRIDHRASI (SCIATICA) – A CROSS SECTIONAL STUDY

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ABSTRACT

The word 'Gridhrasi' indicates abnormal gait similar to Vulture. This change in gait is due to the pain from lumbar to leg. It is described under *Vatajnanatmaj Vyadhi*. A similar condition described in modern medicine is "sciatica". It refers to a 'pain' along the sciatic nerve pathway. The main cause of the irritation of sciatic nerve is bulging or prolapse of the intervertebral disc, decrease in the intervertebral space, sacralization of vertebra and spinal canal stenosis. Modern medicine only concerns about pain management and surgical intervention. It may be expensive and every person can't seek that treatment. On the contrary *Ayurveda* mainly focuses on prevention of disease and *nidana parivarjan*, so it is necessary to find *aharaj* and *viharaj* factors responsible for the disease formation. It was a hospital based observational study. Total 100 diagnosed patients of Sciatica of age group 20-60 years of either sex were included in the study. Structured proforma was made which included detail history related to *ahar* (diet) and *vihar* (daily routine). This data was analysed with the help of descriptive statistics. This study noticeably showed that the patients suffering from *Gridhrasi* were exposed to predominantly *Vataj hetu*. So, for prevention of Sciatica (*Gridhrasi*) it is essential to avoid *Vata* aggravating factors.

Keywords: *Gridhrasi*, Sciatica, *Nidanparivarjan*, *Aharaj & Viharaj hetu*

INTRODUCTION

The term "sciatica" refers to a symptom 'pain' along the sciatic nerve pathway. Pain typically occurs in the distribution of a dermatome and goes below the knee to the foot. It may be associated with neurological dysfunction, such as weakness¹. Pain feeling in Sciatica is characteristically like shooting type and quickly travelling along the nerve.²

The prevalence of it reported in the literature varies significantly ranging from 1.6% in the general population to 43% in a selected working population.³

It is considered the leading manifestation of ruptured lumbar intervertebral disc which may lead to protrusion or herniation.⁴ Approximately 90% of the cases, sciatica is caused by a herniated disc involving nerve root compression. However, lumbar canal stenosis or foraminal stenosis and (less often) tumours or cysts are other possible causes.⁵

On the basis of clinical features, it can be correlated with *Gridhrasi* described in *Ayurveda* under *Vatajnanatmaj Vyadhi*.⁶

Need of study - There is an increasing prevalence of sciatica irrespective of age. As far as treatment in modern medicine is concerned, use of analgesics and physiotherapy help to certain extent⁷ and surgical intervention is expensive and there are chances of recurrence.⁸ Ayurveda has better options in managing pain. As the basic treatment principle of Ayurveda is 'Nidanparivarjan', it is necessary to find out the etiological factors of Sciatica. It will help in management as well as prevention of the disease. Hence this study was planned to explore *Aharaj & Viharaj hetu of Gridhrasi (Sciatica)*.

Aim: "Exploration of etiological factors (*Aharaj & Viharaj*) of Sciatica (*Gridhrasi*)."

Objectives:-

1. To study the age wise distribution of Sciatica
2. To study the gender wise distribution of Sciatica
3. To study the *Aharaj* factors of Sciatica
4. To study the *Viharaj* factors of Sciatica

3. Material and Methods

It was a hospital based prospective observational study. The ethical clearance was obtained from Insti-

tutional ethics committee (IEC no.-DMIMS /IEC/2018-19/7323). The patients fulfilling following inclusion criteria were selected from OPD and IPD of Dept. of *Kayachikitsa* and Dept. of Medicine. The case proforma was designed which includes detail history related to *ahar* (diet) and *vihar* (daily routine). This data was analysed with the help of descriptive statistics.

Inclusion criteria -

1. Age group of 20-60 years of either sex.
2. Patients with classical features of *Gridhrasi* like pain over the *Sphik* (gluteal region), *Kati Prushta* (back), *Uru* (thigh), *Janu* (knee), *Jangha* (calf region) to *Pada* (foot)
3. Patients with positive straight-leg raise (SLR) test

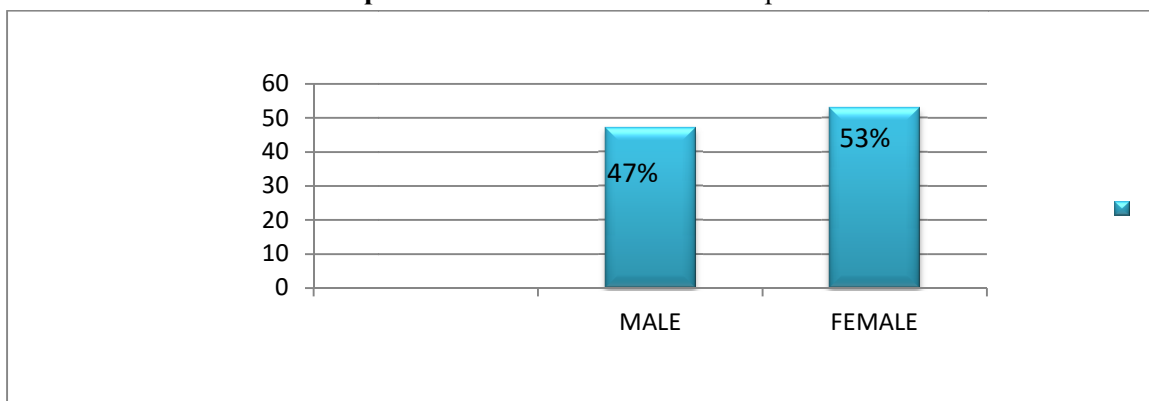
Exclusion criteria -

1. Known case of Spinal deformity, spinal tumours, severe traumatic injury
2. Known case of Pott's spine or Carcinoma of the spine.
3. Patients with previous spinal surgery
4. Pregnant women

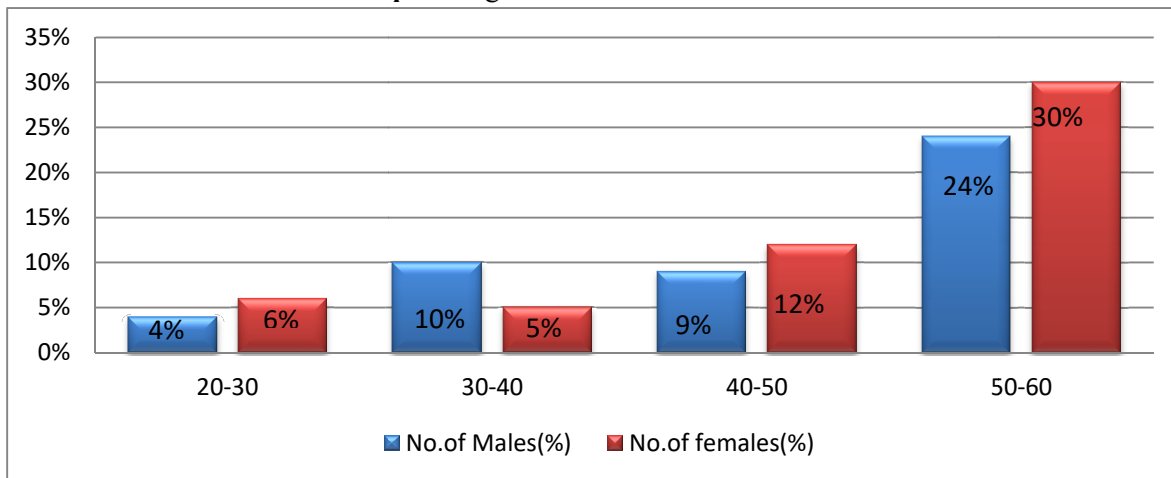
Observations and Result

Following observations were noted in the analysis of data.

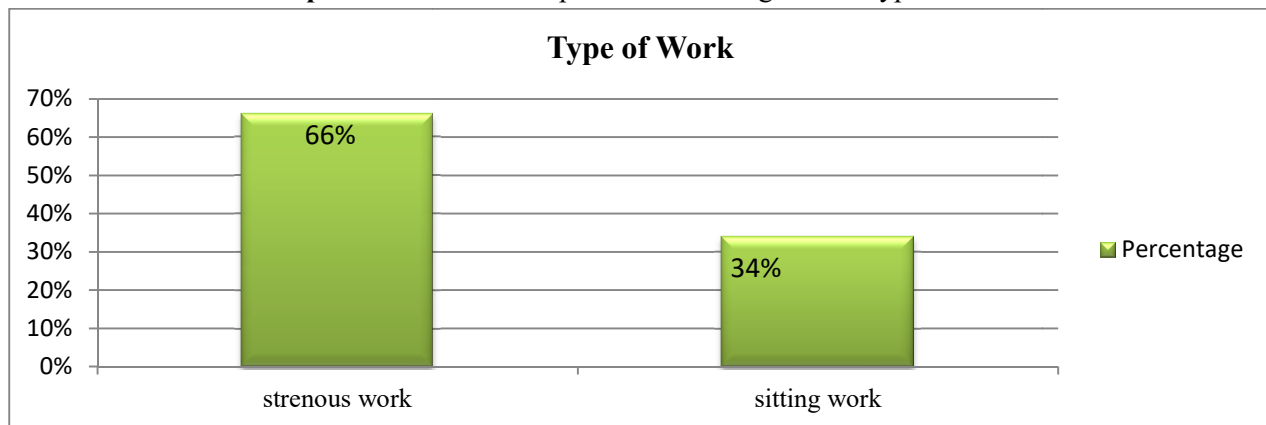
Graph 1: Gender wise distribution of patients



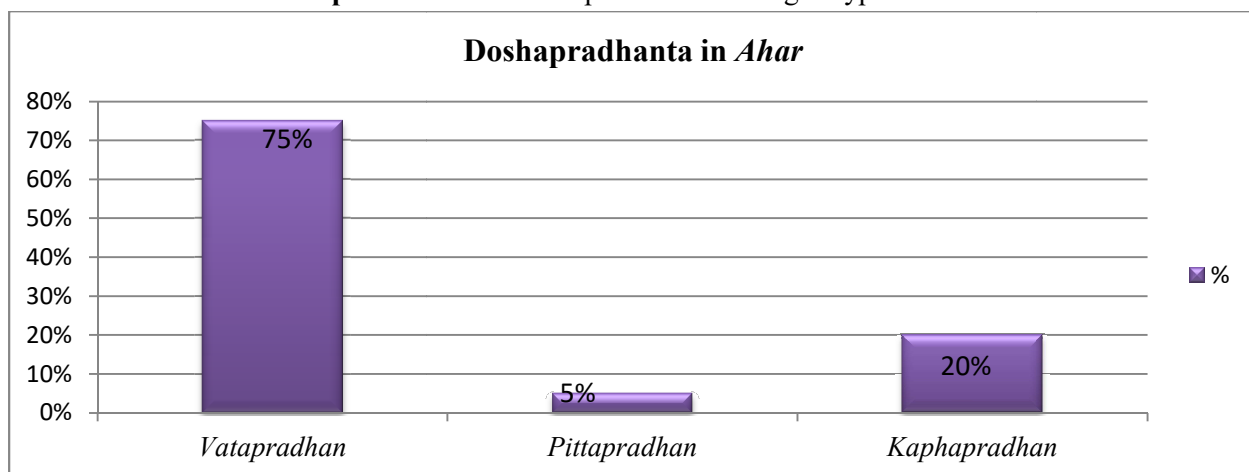
Graph 2: Age wise distribution of Patients



Graph 3: Distribution of patients according to their type of work



Graph 4: Distribution of patients according to type of Ahar



DISCUSSION

In this study, total 100 patients of age group of 20 to 60 years were recruited. This study demonstrated that the females of age group of 41-50 year, had higher prevalence and in 20-30 years age group, males were more frequent. It was also observed that most of the patients were in the age group of 51-60years.

In another MRI-based survey study, lumbar disc degeneration was found to be significantly more in men.⁹ It confirmed that young males are more prone to disc degeneration than young females. It might be due to increased physical stress. It was found that after menopause i.e. around the age of 49–50 years, degeneration of lumbar discs in females is quicker than male.^{10, 11, 12} Oestrogen plays an important role in the etiology and pathophysiology of a variety of musculoskeletal degenerative diseases. The prevalence of osteoarthritis (OA) is higher among women than among men, and this prevalence increases considerably after menopause.^{13,14}

Most of the patients were having daily strenuous work. According to Ayurveda, *atyadhik vyayam* (excessive exercise) causes *vataavridhi*.¹⁵ This *vataavridhi* leads to *dhatu kshaya* (degeneration of *dhatu*).¹⁶ As per the distribution according to type of work, 66% patients were having laborious work like lifting heavy weight or doing work in forward bending position which causes strain on lumbar region & 34% patients were having sitting work (graph.3)

In the history about dietary habits, 75% patients had been consuming *Vatapradhan ahar* (only all types of vegetable and chapatti). There was very less intake of rice, dal, milk & ghee)

Specific *hetu* of *Gridhrasi* are not described in *Samhita*, but it is described under *Vatajnanatmajvyadhi*. So vitiation of *Vatadosha* is prominent in *samprapti* of *Gridhrasi*.

This study showed that the patients were predominantly exposed to *Vatajhetu* i.e. *vataj ahar* and *vihar*.

CONCLUSION

From the study observations, it can be concluded that *vata* predominant age group is more susceptible to *gridhrasi*. Also it is found that females are more prone

to have this disease. Lack of *snigdha ahar* and more intake of *Vata* predominant *ahar* and the strenuous work pattern which causes lumbar strain are significantly found. Hence it is needed to practice medicated *ghrita* by different route in its treatment plan. It can also be recommended to take *snigdha ahar* and to adopt the exercises which strengthen the lumbar muscles for its prevention.

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Exploration of etiological factors (Aharaj & Viharaj) of Sciatica.

Name of patient:-

Age:-

Sex:-

Occupation:-

Religion:-

Address:-

Chief complaints:-

History of present illness:-

Past history:-

Family history:-

History of trauma or fall (if any):-

Previous Investigations:-

Ahara – Type – Vegetarian-

Non Vegetarian-

Content of Ahar-

Frequency -

Regular/Irregular-

Any other –

Viharaj - Time of Wake up in the morning

Exercise -

Type of working-

Total hours of working-

Rest hours –

Sleeping hours-

Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Jyoti Prakash Biyala & Vaishali Kuchewar: Study Of Etiological Factors (Aharaj And Viharaj) Of Gridhrasi (Sciatica) – A Cross Sectional Study. *International Ayurvedic Medical Journal* {online} 2019 {cited November, 2019} Available from: http://www.iamj.in/posts/images/upload/2012_2016.pdf