

SCIATIC NERVE APPLIED ANATOMY WITH AYURVEDIC PERSPECTIVE; A
REVIEW

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ABSTRACT

Due to change in lifestyle and increased pace in day to day routine, there is seldom time given for physical fitness. Resulting a marked impact on one's health. Most commonly encountered problem today is of lower back pain which is radiating in nature. Sciatica is most common cause for lower back pains. The origin and course of Sciatic nerve had may applied aspects to it. By knowing the cases of its pain by understanding the anatomical nerve course, we can plan treatment on the basis of Ayurvedic principles and also guide for prevention of further painful episodes. Pain in Ayurveda is due to vitiated *Vata Dosha*, but for the treating this vitiation of *Vata*, one has to see the exact cause, involved *Dushya* and *Prakruti*. Applied aspect of sciatica gives an insight to address this issue in a holistic way of Ayurveda.

KEYWORDS: *Vata Dosha, Dushya, Prakruti, Sciatica.*

INTRODUCTION

Sedentary lifestyle had influenced the health of humans. Lack of physical activity and improper food habits had led to ever increasing cases of physical as well as mental disorders. Long work hours with continuous sitting posture had resulted in posture related issues. These had led to increase in the cases of lower back pain and sciatica. Sciatica causes severe pain radiating from lower back to the course of sciatic nerve to whole leg from posterior side. In Ayurveda it can be correlated to *Gridhrasi Vyadhi*. In it person feels peculiar *Vata* pain which makes his walking difficult and is of limping type. The nerve irritation triggers the pain in the distribution of sciatic nerve. Modern day medicine has limited scope for treating it with conventional anti-inflammatory drugs giving symptomatic results. If the anatomical origin and course of this largest nerve is studied and Ayurvedic principles applied correctly; can give us a better radical treatment protocol. Here an attempt is made to study this in detail and design an Ayurvedic treatment module for the underlying issue.

Sciatic Nerve

- It is the largest nerve
- Have origin in lower back (L4,5, S1,2,3)
- Course is from lower back to the heel posteriorly, Anatomical course – derived from lumbosacral plexus – enters gluteal region via greater sciatic foramen – emerges inferiorly to the piriformis muscle and descends in an inferolateral direction

- Innervates large portion of skin and muscles of thigh, leg and foot

Sciatica

It is defined as irritation or compression of sciatic nerve that causes radiating pain throughout its course. There are mainly two factors for its cause, spinal and non-spinal cause.

Spinal causes – spinal disc herniation or rupture of nerve roots (L5-S3), degenerative disc changes, spinal stenosis, spondylolisthesis. These can be diagnosed with manual tests like SLR (Straight leg rise) test.

Non-spinal causes – piriformis syndrome, hamstring syndrome, trauma. These can be diagnosed by methods of objective examinations to reveal the tenderness in respective muscle. Here internal rotation of extended thigh triggers the pain – Pace's sign shows tenderness in piriformis muscle. While hamstring stretch aggravates the pain in hamstring injury.

Ayurvedic perspective – *Gridhrasi*

The nomenclature of the disease suggest the nature of pain. In this disorder the pains are radiating from hip to the heel posteriorly. This causes typical 'Vulture – *Gridhra*' type of limping walk. *Acharya Charaka* had mentioned this *Vyadhi* as *Nanatmaj Vyadhi* of *Vata Dosha*. (Cha. Su 20/11). Also other *Acharya* had mentioned vitiation of *Vata Dosha* in this disease. As the pathology is in *Vata* region of body the anatomical

aspects affected by vitiated *Vata* can be discussed as follows.

Spinal causes – here we can correlate the affected parts under these heads and accordingly can find right treatment protocol to be followed. *Asthi Dhatu*, *Majja Dhatu* which are been affected by vitiation of *Vata Dosha* can be considered under this head. Along with it intervertebral disc can be correlated with a type of *Asthi Dhatu* and treatment based on *Asthi Majja Pachan* and *Santarpan* can be adopted.

Treatment which can be adopted.

- Snehan Swedan* – as there is vitiation of *Vata Dosha*. Oilation therapy will help to pacify the underlying vitiation of *Vata Dosha*.
- Asthi Majja Pachan* – here the spinal cause is considered or diagnosed for the formation of disease, hence the *Dushay Samgraha - Asthi* and *Majja Dhatu* are to be treated accordingly. Use of *Asthi Majja Pachan* drugs mentioned in *Charak Jvar Chikitsa* can prove to be beneficial in making the optimum quality of *Dhatu*.
- Basti Chiitsa* – as there is vitiation of *Vata Dosha* and involvement of *Asthi Dhatu*, use of *Tikta Ksheer Basti* can be done for pacifying *Vata Dosha* and also will act on optimizing *Asthi Dhatu*.
- Shaman Chikitsa* – use of various herbal and herbo mineral formulations mentioned in Ayurveda classics can be done to minimize the pain and pacify *Vata Dosha*. *Abha Guggulu*, *Kukkutanda Twak Bhasma*, *Asthisamharak powder*, *Arjun powder*, *Shilajit*, *Ashwagandha* etc. formulations can be used in such conditions.

Non-spinal causes – under this head the remaining factors which causes sciatica can be considered. The piriformis syndrome or hamstring syndrome are due to spasm or trauma to the underlying muscle and tendons. In Ayurveda this can be correlated with vitiation of *Vata Dosha* in *Kandara*, *Snayu*, *Sphika*, *Sakthi* and *Jangha*. These all are formed by *Mamsa*, *Rakta* and *Meda Dhatu*. Hence treatment accordingly can be adopted.

Treatment which can be adopted

- Snehan Swedan* – as there is vitiation of *Vata Dosha* and as stated in uses of *Abhyanga*, it will be beneficial for *Vata Dosha* vitiation in *Kandara* – *Snayu*.
- Rakta Mamsa Pachan* - in non-spinal causes there is Vitiation of *Vata* in *Dusha* which are made up of *Rakta* and *Mansa Dhatu*. Hence optimizing these *Dhatu* by use of *Rakta Mamsa Pachan* drugs mentioned in *Charaka Jvar Chikitsa* can be useful.
- Basti Chikitsa* – for pacifying *Vata Dosha* in *Kandara Snayu*, use of *Matra Basti* with *Sahachar* oil can be done.
- Shaman Chikitsa* – formulations which have effect on *Rakta* as well as *Mamsa Dhatu* and can pacify *Vata Dosha* in its *Upadhatu* can be used. *Trayodashnga Guggulu*, *Saptavimshati Guggulu*,

Rasnadi Vati, *Maharasnadi Kwath*, *Simhanad Guggulu*, *Vatari Guggulu*, castor oil (*Erand Sneha*), *Ashwagandha*, *Karaskar Kalpa* etc. can be used in this condition.

Inference

On the basis of nerve course from point of origin to the heel, the adjoining structures play an important role in such disorders. As being a largest nerve, sciatic nerve have its roots in L4 to S3. Irritation and compression of this nerve leads to severe radiating pain and can hamper normal day to day life. By the virtue of knowing its anatomical course one can identify the underlying cause of sciatica and by its guidance we can inculcate the treatment protocol accordingly. The differential manual examination helps us to identify the cause along with associated symptoms and treatment for exact cause according to principles of Ayurveda can be adopted. This may simplify the treatment direction and can deliver maximum relief to the patients.

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