

A CONCEPTUAL REVIEW ON SCIATICA (GRIDHRASI) THROUGH AYURVEDA

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ABSTRACT

Large number of population suffers from low back pain. Chronic low back pain (CLBP) prevalence increases linearly from the third decade of life on, until the 60 years of age, being more prevalent in women. Sciatica is the most common debilitating condition causes CLBP. Radiating leg pain and related disabilities are the observed in sciatica. Nearly 40% people experience sciatic pain at some point in their life. The diagnosis of sciatica and its management varies considerably within and between countries. Conventional Medicine and surgery are widely used in the management of sciatica. There is radical rise in the use of Complementary and Alternative Medicine (CAM) in patients with sciatica. Ayurveda is one of the widely used CAM in the recent past. Sciatica resembles the disease *Gridharsi* of Ayurveda. *Gridharsi*

is one among the *Vataja nanatmaja vyadhi*, where dysfunction of *Vata* affect *gridharsi nadi* characterized by low back pain radiating to lower limbs, stiffness and pricking type of pain. It starts from *kati- prishtha* (pelvic region and Lumbosacral) radiating to *jangha paada* (Thigh, Feet) with impairment of lifting the leg. The gait of the person is very similar to vulture

(*Gridhra*) hence the name is given as *Gridharsi*. In this article, attempt has been made to review the Ayurvedic classics text and related literatures to understand the disease *Gridharsi* with emphasis on its samprapti on the basis of *Kriyakala* and role of *Shodhana* and *Shamana chikitsa* in the management of *Gridharsi*.

KEYWORDS: *Gridhrasi, Sciatica, Vata Vyadhi.*

INTRODUCTION

Modernization and sedentary lifestyle of human being in developing countries has created several disharmonies in biological system. Factors like improper sitting postures in offices, jerky movements in travel and sports lead to the low back pain and sciatica. Low back pain (LBP) is the most frequently reported musculoskeletal problem in elderly adults. LBP due to lumbar disc prolapse is the major cause of morbidity throughout the world. Lifetime incidence of LBP is 50-70 % with incidence of sciatica more than 40%. However clinically significant sciatica due to lumbar disc prolapse occurs in 4-6 % of the population.

The prevalence of sciatica varies considerably ranging from 1.6% in the general population to 43% in a selected working population. Sciatica not only inflicts pain, but also causes difficulty in walking. It negatively impacts quality of life of patient and disturbs daily routine.^[1] Sciatica is very painful condition in which pain begins in lumbar region and radiates along the posterior lateral aspects of thigh and leg, in this condition patient walks with difficulty. It occurs because of spinal nerve irritation and characterized by pain in distribution of sciatic nerve.

NIRUKTTI OF GRIDHRASI

In Ayurveda, diseases are named by different ways, viz. according to *Dosha - Dushya* involvement, according to symptoms etc. Here the word *Gridhrasi* is suggestive of the typical character of pain and also the gait of the patient.

Gridhra means vulture. Vulture is fond of meat and has a particular fashion of eating meat. It pierces its beak deeply in the flesh and then draws it forcefully, causing severe pain. The pain in *Gridhrasi* is also of the same kind, hence the name is given. Also, because of the persisting severe pain the patient has a typical gait i.e. slightly titled towards the affected side and affected leg in flexed position and another leg extended. This gait resembles with that of vulture.^[3]

In this disease the patient walks like the bird *Gridhra* and his legs become tense and slightly curved so due to the resemblance with the gait of a vulture, *Gridhrasi* term might have been given to this disease. *Gridhra* is bird called as vulture in English. This bird is fond of meat and it eats flesh of an animal in such a fashion that he deeply pierces his beak in the flesh then draws it out forcefully. Due to persisting severe pain the patient has a typical gait i.e. slightly tilted towards the affected side and affected leg in flexed position and another leg extended. This gait resembles with that of vulture. Such type of pain occurs and typical gait observed in *Gridhrasi*.^[4]

DEFINITION

According to *Acharya Charaka*, '*Gridhrasi*' is one among the '*Nanatmaja Vata Vyadhi*'^[5] which is characterized by *Stambha* (stiffness), *Ruka* (pain), *Toda* (pricking pain) and *Spandana* (frequent tingling). These symptoms initially affect *Sphika* (buttock) as well as posterior aspect of *Kati* (waist) and then gradually radiates to posterior aspects of *Uru* (thigh), *Janu* (knee), *Jangha* (calf) and *Pada* (foot). According to *Acharya Sushruta*, where two *Kandara* i.e. ligament of heel and all the toes are affected by vitiated *Vata*, So movement of the lower limb get restricted; it is known as *Gridhrasi*.^[7] As per *Acharya Harita*, *Gridhrasi* is a condition originates due to vitiation of *Vyana Vayu* which is responsible for all the types of voluntary movements i.e. expansion, contraction, upward, downward and oblique.^[8]

CONCEPT OF VATA IN GRIDHARSIS

All *Acharyas* have unanimously accepted the role of *Vata* in causing *Gridhrasi*. The description of *Gridhrasi* in particular is very concise in the classics. Hence by knowing the physiological and pathological aspect of *vata*, will help to understand *Gridhrasi* in better way.^[9]

PHYSIOLOGICAL ASPECT

The science of Ayurveda revolves around three basic humors of body i.e. *Vata*, *Pitta* and *Kapha*. These three basic factors in their equilibrium, determine the state of health and in the disturbed state of their equilibrium cause disease. These three are the actual intrinsic factors of the disease and hence called '*Tridoshas*'.^[10]

Amongst the *Tridoshasa*, *Vata* is the governing factor of other two *Doshas*, *Dhatus* and *Malas* as their movement in the body depends on *Vata*.^[11] *Sushruta* describes that the word '*Vata*' is derived from '*Va*' which signifies *Gati* (motion or movement) and *Gandhan* means to

enthuse, to make know, to become aware of induction, effort, to enlighten.^[12] Acharya Charaka says that *Sharira Vayu* is *Asanghata* and *Anavasthita*. It is responsible for the conduct, regulation and integration of all vital functions and structures of the body.^[13] According to Acharya Sushruta, *Sharira Vayu* which courses through the body is self-originated, subtle and all pervasive, although invisible in itself, yet, its works are manifested, it abounds in the fundamental quality of *Rajas*, it is instantaneous in action and radiates through the organism in constant currents.^[14] The characteristics of 5 types of *Vayu* are *Prasandan*, *Udvahanam*, *Puranam*, *Viveka* and *Dharanam*.^[15]

PATHOLOGICAL ASPECT

Vata gets vitiated because of over indulgence of the *Dravyas* which are having similar properties as that of *Vata*. The vitiated *Vata* causes various diseases in the body, according to the degree of vitiation and the site where the localization of *Doshas* takes place.^[16]

PRAKOPA HETUS OF VATA

Various etiological factors for vitiation of *Vata* are mentioned in the classics. The important are ingestion of *Ruksha*, *Sheeta*, *Laghu Aahara*, excessive sexual indulgence, *Prajagarana*, *Upavasa*, excessive activities, physical trauma, excessive walking, *Vegadharana*, carrying heavy weights etc. seasonal variations like *Sheeta*, *Varsha Ritu*, *Jirnanna Kala* etc. are the *Vataprakopaka Hetus*.^[17]

SAMPRAPTI (PATHOGENESIS) BASED ON SHADVIDHA KRIKYAKALA^[28-31]

Samprapti of *Gridhrasi* can be understood through the *Shath Krikyakala* (six stage), it is as follows.

CHAYA

Nidanas leads to accumulation of *Aatmarupa* of *Vayu* i.e. *Ruksha*, *Sheeta*, *Chala Guna* (along with *Kapha* by its *Guru* and *Sheeta* property) in its own place, produces the symptoms of *Chaya*. This is the first stage of *Samprapti*. *Vata* when gets aggravated either due to exposure to factors similar to *Vata* associated with *Ushna* instead of *Sheeta Guna* or due to season or age increase first in its own sites. The condition is called *Chayavastha*. The individual feels aversion to the diet and drinks possessing qualities similar to that of *Vata*. *Sthabdha*, *Purnakoshtata* or a sense of dullness or fullness in the abdomen and *Katistahana* also occurs.

PRAKOPA

Prakopa is second stage of *Samprapti* in which accumulated *Vata Dosha* tends to become swollen and excited. When no therapies have been adopted to subdue *Vata* at its *Chayavastha* itself and allowed to get aggravated further due to exposure to its aggravating factors it reaches the stage of *Prakopavastha*. There are differences in views pertaining to *Prakopavastha*. According to *Sushruta*, *Prakopavastha* is the 2nd stage of evolutionary process of manifestation of disease and there is four more stage of evolutionary processes. Whereas according to *Vagbhata* and *Charaka* there are only two stage of evolutionary processes of disease i.e. *Chaya* and *Prakopa*. According to them all the five stages of *Kriyakalas* mentioned by *Acharya Sushruta* except *Chaya* will come under the *Prakopa* stage. In the stage of the *Prakopa* the quantity of *Vata* if increased further will be in the maximum quantity at its own sites and is ready to expel. It will cause *Koshtatoda* (sensation of pinning pain) and *Koshta Sancharana* (movement of *Vayu* in abdomen).

PRASARAVASTHA

Prakopa stage is followed by *Prasaravastha* in which the vitiated *Vata* propagates all over the body. This is the third stage of *Samprapti*. Symptoms of *Prasara Prakopa* mentioned in classic can be observed at this stage. When no therapeutic measures have been adopted at the stage of *Prakopa* the *Vata* being expelled from its own sites spread over and extends to other parts, organs and structure of the body. While spreading, *Vata* which possesses the power of locomotion will take lead in spreading other *Doshas* also in general. In the present context also *Vata* may spread itself throughout the body or spread along with *Kapha*. The process is general up to *Prasaravastha* for all disorder in general. When the *Vata* has not been treated at *Chayavastha* and allowed to expose to its etiological factors and when other conditions are favorable for morbidity it will precede to subsequent stages. In such a stage it is termed as *Chayapoorvaka Prakopa*.

This process will lead to *Gridhrasi* of gradual onset. At times when *Vata* is exposed to its etiological factors more intensively it may directly reach the *Prakopa* stage and immediately pass on to further stage resulting into the sudden manifestation of *Gridhrasi* which is termed as *Achayapoorvaka Prakopa* or sudden onset. The *Dosha Dhātu* vitiation inside the body which makes proper atmosphere for the manifestation of *Gridhrasi* would have been getting evolved for a very long time before its sudden manifestation. In this stage, the *Prasaravastha Vimargagamana* (spreading to other parts) and *Atopa* (painful distension of abdomen,

intervertebral disc prolapses) accompanied by rubbing noise of enlargement of particular part are the clinical manifestation by *Vata*.

STHANSAMSHRAYAVASTHA

The previous three stages have been known as stages of *Dosha*. From fourth stage onwards, they are called as stages of the disease. Among later three stages *Sthansamshtayavastha* has the prime importance because interaction between *Dosha* and *Dushya* start to at this stage. If no treatment is adopted even at the stage of *Prasara* the *Dosha* while moving through out the body would settle in the part of the body where there is pre-existing *Khavaigunya* i.e. pre-existing degenerative changes like fibrillation and sequestra formation in the nucleus pulposes and development of fissure in the annulus in general displacement of *Kapha* (nucleus pulposes) resulting in to bulging of posterior longitudinal ligament, enough to touch the dura matter. The premonitory clinical features are only manifested at this stage. This stage is called *Poorvarupavastha*. No specific *Poorvarupas* have been described for *Vatavyadhis* and *Gridhrasi* in particular by *Acharyas* but have stated that the same clinical features will be manifested in an unclear (*Avyaktha*) form in this stage of *Poorvarupa*. In *Gridhrasi*, backache or lumbago are observed to occur in this stage.

VYAKTA AND BHEDAVASTHA

Different abnormalities produced in previous stage leads to production of symptoms of the particular disease is the fifth stage of *Kriya Kala* e.g. *Vyakti*. After *Dosha-Dushya-Sammurcchna* the body channels are impaired by the morbid *Doshas* leading to the production of specific features of the disease, whereas it is collectively known as *Lakshana-Sammucchaya*. On the basis of signs and symptoms diagnosis of the disease is possible. The impairment of *Gridhrasi-nadi* leads to the manifestation of *Gridhrasi* disease. All the *Pratyatma Lakshanas* i.e. cardinal features of *Gridhrasi* pertain to either one *Pada* or both *Padas*. Hence the site manifestation of clinical features i.e. *Vyaktasthana* are *Padas* in general. In bilateral sciatica where bowel and bladder are involved the clinical features of those functions also get manifested. Hence *Mootra* and *Malas* are also to be considered as *Vyaktasthana* rarely in such cases. The movement of one leg is usually impaired in *Gridhrasi*. The movement of the leg is controlled by *Gridhrasinadi* together, its branches and some other *Nadis* of lumbo-sacral plexus. Each movement is controlled by two spinal segments.

DHATUKSHAYA AND MARGAVARNAJANYA SAMPRAPTI OF GRIDHRASI

The actual manifestation of the disease occurs when the circulating vitiated *Doshas* get accumulated where *Khavaigunya* is already present. There are two main reasons by which *Vata* get vitiated. They are *Dhatukshaya* and *Margavarodha*. Because of the *Samprapti Vishesha*, the same *Nidanas* produce different *Vatavyadhis*. This is because the presentation of the disease changes according to the *Sthana* where *Dosha-Dushya Sammurchhana* takes place. *Khavaigunya* plays an important role in the disease process. In *Gridhrasi*, exposure to mild but continuous trauma to *Kati*, *Sphika* region because of improper posture, travelling in jerky vehicles, carrying heavy loads, digging etc. or sometimes spinal cord injury, improperly treated pelvic diseases are responsible for producing *Sthanavaigunya* at *Kati*, *Sphika*, *Prishtha* etc. They may not be able to produce the disease at the instance, but after acquiring some *Vyanjaka Hetu* (exciting cause), the disease may be produced. Here, the *Samprapti* takes place either by *Apatarpana* or *Santarpana* or *Agantuja*.

In the state of *Apatarpana*, all the *Dhatus* viz. *Rasa*, *Rakta*, *Mamsa* etc. are subjected to *Kshaya*. This *Dhatukshaya* results into the aggravation of *Vata* and this vitiated *Vata* fills up the empty *Srotasas* ultimately causing *Vatavyadhi*. Due to *Rukshadi Aaharas*, firstly the *Rasa Dhatu Kshaya* takes place and it leads to further *Dhatukshaya*, involving *Mamsa*, *Meda*, *Asthi*, *Majja* etc.

And another type of *Samprapti* occurs due to *Santarpanaoktha Nidana Sevana* causing *Margavarodha*. Here *Kapha* is found as *Anubandhi Dosha* along with *Vata*. *Atibhojan*, *Diwaswapa* etc. are the factors responsible for this kind of *Samprapti*. Deranged *Jatharagni* leads to formation of *Ama*. *Ama* produces obstruction to the normal *Gati* of *Vata*. To overcome the resistance *Vata* attempts to function hyperdynamically. This leads to *Vataprakopa*, also when *Amasamshrista Vayu* resides at *Kati*, *Prishtha* etc. *Gridhrasi* may be produced. *Lakshanas* like *Tandra*, *Gaurav*, *Agnimandya* etc. are observed due to involvement of *Kapha* and *Ama*. Impaired *Dhatwagni* may lead to the production of *Adhyasthi*, *Arbuda*, *Granthi* etc. i.e. *Apachita Dhatus*. If they cause *Avarodha* in the *Vatavaha Nadi* of the lower limb, *Gridhrasi* may be produced.

Bahyaabhighata like *Agantuja* factors are responsible for the '*Achayapurvaka Prakopa*' of *Doshas*. *Abhighata* leads to *Dhatukshaya* directly and *Vata* provocation is liable to occur. The vitiated *Vata* may directly intermingle with *Asthi*, *Majja Dhatu* to produce *Gridhrasi*. *Mamsa* and *Meda Dhatu* are *Snigdha*, *Guru Dhatu*. *Rukshadi Aahara* hampers the process of

their *Poshan* leading to *Mamsa* and *Medakshaya*. Also *Sphika* is *Mamsa Pradhan Avayava*. *Sphika Shushkata* is mentioned in *Mamsakshaya Lakshana*. *Rukshata* at *Mamsa Dhatu* produces *Stambha* in the muscles of lower limb restricting its movement.^[32]

In the *Lakshanas* of *Asthi*, *Meda* and *Mamsa Kshaya*, *Sandhishunyata*, *Sandhi Shaithilya* and in *Asthi* and *Majja Kshaya*, *Asthi Saushirya*, *Asthi Daurbalya* and *Laghuta* are described. All these *Dhatukshaya Lakshanas* can be correlated to degenerative changes specifically in bone e.g. osteomalacia, osteoporosis, spondylosis, tuberculosis etc.

CHIKITSA SIDDHANTA (LINE OF TREATMENT) OF GRIDHRASI (VATAVYADHI)

Nidana Parivarjana (avoidance of causative factors), is the first and foremost principle to be adopted in the treatment. Secondly the intensity of the *Dosha Prakopa* should be considered before deciding the line of treatment. If the *Dosha prakopa* is minimum *Langhana Chikitsa* is enough, if the intensity of *Dosha prakopa* is moderate then *Langhana* and *Pachana* treatment should be given. If, *Doshas* are in *Prakopa avastha*, *Shodhana* treatment should be decided.

REFERENCES

1. Charaka Sutra Sthana 20/11 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p113.
2. Charaka Chikitsa Sthana 28/56 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p 619.
3. Sushruta Nidana Sthana 1/5-8 Sushruta Samhita, Nibandha Sangraha, Yadavji Trikamji Reprint edition 2010 Varanasi, Chaukhamba surbharti Prakashana p 257.
4. Harita Samhita chikitsasthana 5/ Harita Samhita,with Hari Hindi vyakhya by Pandit Hariprasad Tripathi Varanasi:Chaukhambha Krishnadas Academy, first edition, 2005,p
5. Charaka Sutra Sthana 20/11 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p113.
6. Charaka Sutra Sthana 1/57 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p16.
7. Sharngadhara Samhita purvakhanda 5/43 Sharangdhara Samhita Deepika vyakhaya Brahmanand Tripathi Reprint edition 2010 varanasi, Chaukhmbha Publishing house p 60.
8. Sushruta Sutra Sthana 15/1 Sushruta Samhita, Nibandha Sangraha, Yadavji Trikamji Reprint edition 2010 Varanasi, Chaukhamba surbharti Prakashana p 67.
9. Charaka Chikitsa Sthana 28/1 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p 616.

10. Sushruta Nidana Sthana 1/5-8 Sushruta Samhita, Nibandha Sangraha, Yadavji Trikamji Reprint edition 2010 Varanasi, Chaukhamba surbharti Prakashana p 257.
11. Sushruta Sutra Sthana 15/1 Sushruta Samhita, Nibandha Sangraha, Yadavji Trikamji Reprint edition 2010 Varanasi, Chaukhamba surbharti Prakashana p 67.
12. Charaka Chikitsa Sthana 28/8 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p 616.
13. Sushruta Sutra Sthana 21/19-20 Sushruta Samhita, Nibandha Sangraha, Yadavji Trikamji Reprint edition 2010 Varanasi, Chaukhamba surbharti Prakashana p 103.
14. Charaka Chikitsa Sthana 28/75 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p 620.
15. Charaka Chikitsa Sthana 28/76 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p 620.
16. Charaka Chikitsa Sthana 28/78 Charaka Samhita, Ayurveda Deepika, Yadavji Trikamji, Reprint Edition 2009, Varanasi, Chaukhamba Orientalia p 620.
17. Raja Radha Kanta Deva edited Shabda Kalpadruma, 5th volume, Edition: 1987, Pub:Nag publishers,Delhi, Page No.277.