

## DIAGNOSIS AND MANAGEMENT OF LUMBAGO/SCIATICA – AN AYURVEDIC PERSPECTIVE

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### ABSTRACT

Low back ache with or without radiation is an extremely common malady afflicting the human race across the globe cutting the geographical boundaries, race, age, gender etc. The pain and the disability caused by this affect the day today activity and occupation which in turn makes the patient to seek the medical advice.

Lumbago is one of the symptoms in different pathogenesis of the *kati pradasha* where *dhatu*s and *upadhatus* in the *kati* region are involved. As these come under *vata vyadhi*, those specific *nidanas* related to affect *kati* and its management are discussed.

**Keywords:** Lumbago, Sciatica, *Gridhrasi*, *Katishula*

### INTRODUCTION

The changed life style, stress, excess travelling, improper postures, occupation, all these interfere the normal life. Lumbago/Sciatica is the common outcome of the above. Low back ache refers to pain from the lower lumbar areas, lumbo-sacral areas and both the sacro iliac joints. It is the second most common cause affecting the working population<sup>1</sup>. This is a major cause of disability and an important driver of health care costs in the United States and other countries.<sup>2</sup> This reflects the necessary attention and intervention.

Ayurvedic literatures explain different diseases affecting the *kati* region. They mainly present with pain (local or radiating) or stiffness as one of the prominent symptoms in the *kati pradasha* and even end up in crippling. The *vata vyadhi nidana* specific to the diseases causing *Kati shula/Gridhrasi* are categorized as *agantuja* and *nija*.

**Aagantuja karana:**

**Abhighata and Apatamsana:** Hit on the back, fall from a height are the common forms of trauma (*abhighata*). The above two causes are the *sannikrusta nidanas* for the disease affecting the *katipradasha*.

When the intensity is mild, this may cause minor injury in the *snayu*, *sira*, *khandara*, *Asti* and *sandhi* of *Kati pradasha* or in severe cases it may cause severe injury to these structures causing *sandhi cyuti* or *asti bhagna*. *Marmabhighata* is another possible consequence. Here the pain resulted is mainly because of *vata prakopa*. There will be an acute and severe pain with or without radiation. When the *khandaras* are affected, then radiating pain will be the symptom.

Fall from a height, road traffic accidents are the common causes for the thoraco lumbar injuries. Wedge compression, stable burst fractures, unstable burst fractures are the different types of fractures. Here patient gives a history of fall/ road traffic accidents, based on the severity of injury, there will be

pain, swelling, palpable interspinous gap or a step may be felt. Individual nerve root may be involved. Investigations like X ray, Computed tomography/ Magnetic resonance imaging help to confirm the diagnosis.<sup>3</sup>

**Marmabhighaata:** This may result from *Abhigata*, *Apatamsana*. Based on the site of injury, *marmas* in that place are affected and presents with specific *marmabhighata* symptoms. Injury to the *kukkundara marma* in the low back will result in *chestahani* of *adha kaya*, *sparshaaj nata*. *Nitamba marma* injury leads to *adhah kaya shosha* and *daurbalya*.

The *khandaras* in *adhashaka* which starts from *shroni* and ends in *nakhagra praroha* (Tip of the toe) explains the radicular pain in *Gridhrasi*.<sup>4</sup>

In severe road traffic accidents/ fall, there may be unstable burst fractures which present with neurological symptoms ranging from paraplegia to individual nerve root involvement. All the reflexes are lost during spinal shock period. Cauda equina paralysis is present if the lesion is below L1. Spinal cord injury may be the result in some accidents which presents with complete paralysis, sensory paralysis, or motor paralysis.<sup>5</sup> Lumbar spinal stenosis where neurogenic claudication is a usual symptom. Motor and sensory involvement is common with bowel and bladder incontinence.

**Nija karanas:** They are categorized under *aharajanya* and *viharajanya*. These are the *viprakrusta nidanas*.

**Aaharajanya:-**

**Ruksha, sheeta, laghu anna-** Regular or excess intake of such food articles cause *vata prakopa*. Excess of *Katu rasa* dominant food intake causes *karshana* and because of *agni* and *maruta guna* dominance,

they produce *vata rogas* in *prushta* and *parshva*. Excess of *tikta rasa* intake causes *shoshana* of all the *dhatu*s and produce *vata vikaras*. Excess of *kashaya rasa* dominant food intake causes *karshana* because of *khara ruksha guna* it causes *vata vikaara*.<sup>6</sup>

**Alpa abhojana:** By frequent indulgence, they cause *uttarottara dhatu kshaya*, *upadhatu kshaya* and *vata prakopa*. They lead to *asti majja kshaya*, *shoshana* of *upadhatu*.

**Vihaarajanya :**

**Ati adhva, vyaayama, vicheshta, Dhukha shayya asana, Gaja Ushtra Ashva sheegranya** (Present day, this *yaana* may be considered as travelling in motor vehicle with a jerky movement) – These *viharas* with the frequent indulgence cause *vata prakopa*, repeated indulgence in later course, they leads to *dhatukshaya*. Some time they may cause minor *viddhata* (injury) or *shithilata* in the *dhatu*, *upadhatu* and *sandhi* in *kati pradasha* leading to the disease.

Repeated bending, twisting activities, posture which cause unbalanced spine lead to repeated strain over the muscle, ligaments, disc in the low back leading to the degeneration. These also lead to arthritis of the facet joints in the low back region. Another most common cause of backache is bad posture which increases the strain on the ligaments and discs causing faster degeneration. These degenerative changes make the disc susceptible for the trauma or may rupture without any cause.

When the spine becomes unbalanced like in bad postures, twisting movements a greater number of muscle fibers are called into play at frequent intervals to keep the spine straight. Thus fatigue develops earlier. This fatigue causes muscle insufficiency as a result of which spine sags, putting the strain

on the ligaments and posterior articulating facets. Gradually changes occur at the facet joints and lumbo sacral junction.<sup>7</sup>

**Vega sandharana:** Repeated *vega sandharana* specifically *mala* and *mootra vega* leads to *apana vata vaigunya* and result in *pakwashaya gata* or *guda gata vata* where *kati shula* is also a presenting feature. Other consequence of *vega dharana* may be the *shakrutavruta vata* condition.

**Margaavarana by Ama:** The *aama* formed causes *margavarana* of *vata* producing the diseases<sup>8</sup>. Any pathogenesis which forms the *aama*, obstructs the *maarga* of *vata* in *kati*. In long course, this formed, untreated *aama* can cause the *shithilata* of the *dhatu*, *upadhatu* and *marma* in the *Kati*. Here patients present with more *saama vata* or *saama kapha lakshana* like morning stiffness, *stabdata*, *gauravata*,

Other *vata prakopa karanas* can lead to this disease by repeated indulgence. Some are like:

**Bhaaravahana:** Regular lift of heavy weight over the back cause repeated injury in the *asti*, *snayu* in *kati pradesha*. They cause *vata prakopa* and *dhatu kshaya* leading to different disease like *asti kshaya*, *snayugata vata*, *asti majjagata vata*, *Sandhi cyuti (srams)*.

Stabilization of the back muscle is less good during movements, especially if performed abruptly or associated with lifting of a weight. This overloading, unbalanced, unwarranted movements increases load on the muscles and discs. Movements like weight lifting, fall on the buttock, direct trauma over the back, twisting movements, these all increase in pressure suddenly which will result in rupture of annulus.<sup>9</sup>

**Congenital diseases:** Some of the congenital bone malformations like *Spina bifida occulta*, *Spondylolysthesis*, *Spondylolysis* are the common birth deformities which gradually causes low back pain with or without radiation depending on the severity.<sup>10</sup> These are to be understood from the point of *Janmabala pravrutta vyadhis*.

Finally all these above *nidanas* lead to *vata prakopa* directly or *vata prakopa* because of *dhatukshaya* or *aavarana*. By analyzing the *nidana* and *dosha doosha* involved, based on the symptom in the patients, proper diagnosis is made. Some of the conditions are – *Gridhrasi*, *Kati shoola/graham*, *trika shoola*, *astigata*, *majja gata*, *snayugata vata*, *astikshaya*, *majja kshaya*, *gudagata vata*, *pakwashayagata vata*, *Shakrutaavruta vata*. *Asti bhagna*, *sandhi cyuti(srams)*, *marmabhighata*.

In other diseases, pain or stiffness in the low back are the associated complaints like in *aamavata*, *vataja pradara*, *arbuda*, *vataja arshas*, *vatodara*, *vataja shula*, *vidradhi* and so on. Here the *nidana* and *samprapti* explained for that diseases are to be considered.

**Why in kati? :** All the above *nidana* causes *vata prakopa* then leading to *Dhatukshaya* or Vice versa. Then the presentation of the symptom in *Kati pradesha* is decided by several factors starting from *prakruti* of a person, nature of the food article, *vihaara*, occupation, chances of *abhighata*.

To assess the structures involved, to confirm the diagnosis, one can suggest specific investigations to the patients. It also helps us to rule out some of the illness where low back ache is the symptom like secondaries, infections or diseases which requires surgical interventions like burst

fractures, dislocations, and some herniations.

### TREATMENT:

The treatment is mainly aimed at intervention of the pathogenesis, relieving the symptoms and preventing the recurrence. *Samprapti vighatana* should be the initial intention of the treatment later being the strengthening the low back area so that the recurrence is prevented. The line of management is planned based on the *dosha dooshya* involved and *samprapti*.

*Nidana parivarjana* should be the first line to advice. Excess travel, *bharavahana*, *vega sandharana*, *dhukha shayyasana* are to be strictly avoided which may worsen the condition or predispose the second episode.

Specific *chikitsa sootras* are to be followed as explained in the *samhitas*, if the diagnosis is *kati shoola/graha*, *trika shoola*, *asti majja kshaya*, *gata vata*, *marmabhighaata*, *gudagata vata*, *pakwashayagata vata*, *shakrutaavruta vata*, *asti bhagna*, *sandhi cyuti(srams)*, *Gridhrasi*.

Apart from this, the following *chikitsa* is also advised when *kati shula* is the symptom.

**Paachana chikitsa:** In the association of *aama*, with *kapha*, initial line of treatment should be *paachana chikitsa*. Here *shunti*, *chitraka*, *panchakola* can be used. This helps in *aama paachana and sroto vishodhana*. Once the *aamavasta* is cleared, treatment is planned based on the *dosha* dominance.

**Vaataanulomana:** *Kati pradesha* is specifically *apaana vata sthana*. When there is *apana vata vaigunya*, then, the main line of treatment is *anulomana chikitsa*. Here *vata prakopa* is also associated. So the drug should have *snigdha guna*, *anulomana*, thus

causing *vata shamana*. Along with other treatment, *Eranda taila* can be advised in the patient for *vatanulomana* and *vata shamana*. In *shakrutaavruta vata*, *Gridhrasi* the treatment advised is administration of *Eranda taila*.

**Swedana chikitsa:** As there is *vata* and *kapha prakopa* presenting with *stambha*, *graha*, *shoola*, *gaurava in kati pradesha* and in limbs, *swedana chikitsa* is best advised for *vata* and *kapha shamana*. *Sweda* relieves *stambha gaurava*, *shoola* because of its *ushnadi gunas*. The *snigdha* and *ruksha* type of *sweda* is decided based on the *dosha* involved.

In the presence of *kevala vata*, *dhatukshayaja vata*, *snigdha sweda* is advised in the form of *kati basti*, *naadi sweda*. The *taila and kashaya dravya* used should have *vata shamana*, *shoolahara*, *brumhana guna*.

In the presence of *kapha* and *aama*, *ruksha sweda* is given in the form of *Valuka sweda*. Likewise *nadi sweda* is also indicated without *abhyanga*. Once the *aama* or *samsrusta kapha avasta* is cleared, then *vata chikitsa* is advised. *Sankara sweda* is advised using suitable drugs. *Avagaha sweda* is beneficial to some extent.

**Basti chikitsa:** This treatment has got a major role in the treatment of different pathogenesis of *Gridhrasi* and *kati shula*.

In *kevala vataja* condition *vataghna basti* is planned like *Dashamoola*, *Eranda-moola*, *Balaamoola niruha basti*. The *kalka dravya* should have *vatahara*, *rasayana guna* like *Ashwagandha*, *Shatapushpa*. *Avapa dravya* like *maamsa rasa* can be added as an optional.

In *kapha pradhana* or *saama and aavarana* conditions, should plan *teekshna basti* like *Kshara basti*, *Vaitarana basti*.

*Kaphaghna basti* is prepared like *Eranda-moola kshaara basti* with the *avaapa dravya* like *goomutra, chinchra rasa, amla kanji*.

In case of *marmabhighaata, yapana basti* like *Raja yapana basti* is selected. In *asthi pradoshaja vikaara, tikta rasa ksheera basti* with *tikta sarpi* as *sneha* is selected. So also *matra basti* with specific *sneha* according to the condition is to be selected. In these conditions, repeated course of *basti chikitsa* is to be planned.

*Nitya matrasthi* or *nitya snehana* is indicated in those who are actively involved in such stressful activities which cause strain to the *Kati pradasha*. *Snehana* with the above procedures prevent them from *Vata prakopa*.

**Measure to prevent the recurrence:** Once the *samprapti vighatana* is achieved, the next line of management is to prevent the recurrence. For that, *nidana parivarjana*, life style modification, back strengthening exercises are to be advised. Persons who are prone for *vata prakopa*, they should follow measures for *vata shamana* like *nitya abhyanga*, repeated course of *matra basti*, following *dinacharya* and *rutucharya*.

**CONCLUSION:** Lumbago/ Sciatica are one of the common diseases affecting all age groups. Assessment of *nidaana, dosha dooshya* involved, and understanding the *samprapti* helps in diagnosis and management.

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