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**Ayurveda**

**A REVIEW ON NIDANA PANCHAKAS OF GRIDHRASI**

**KEY WORDS:** Gridhrasi, Sciatica, Ayurveda

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**ABSTRACT**

Gridhrasi is one among the most common disorder causing morbidity in productive period of life affecting the lower limb, leading to walking difficulty. It is characterized by pain, pricking sensation, stiffness and repeated twitching observed sequentially in buttocks, low back, thighs, back of knee, calf region and foot with restricted lifting of the affected leg. Due to similar clinical presentations Gridhrasi may be correlated to sciatica of the contemporary system of medicine characterized by pain, weakness, numbness, and other discomforts along the course of sciatic nerve. This has become a very common condition with an annual estimate of 10 million cases reported from India with more prevalence in males, mostly of 40-60 years of age group.

**Etymology of gr̥dhrasī:**

The word gr̥dhrasī is in feminine gender which is derived from the dhātu “gr̥dhra” that means to covet, desire, and strive after greedily, eager for. Further, the derivation of the word gr̥dhrasī from gr̥dhra is as follows: by the rule 'atonupasarge kaḥ', kaḥ pratyāya is added to gr̥dhra + śo. Hence forming gr̥dhrat + śo + ka. By lopa of 'o' and 'k', 'ś' is replaced by rule 'dhatvadeh shaḥ saḥ' and in female gender 'aṅgiś' pratyāya is added to form the word 'gr̥dhrasī'.

**Nirukti of gr̥dhrasī:**

Gr̥dhrasī is a disease which is said to cause an abnormal throwing action in the affected leg. The Sanskrit word syāti in gr̥dhrasī means “throwing action”. By this abnormality, the gait of the patients is said to resemble the gait of bird vulture (gridhra) and hence the name gr̥dhrasī to this unique illness. The author of Amarasudhā further opines that this disease is caused by morbidity of vāta doṣa affecting the hip joint.

The above reference from Sabdakalpadruma states that, the word gr̥dha refers to a person who is crazy of eating meat. The word syāti in saṅskṛit means to cause suffering. Thus the word gr̥dhrasī applies to an illness that mostly attacks the persons who are greedy of consuming meat.

Gr̥dhrasī means rheumatism affecting the loins.

According to another nirukthi, gr̥dhrasī is characterized by severe pain experienced by the patient and is similar to the one experienced by a prey of vulture while being eaten up.

**Paribhāṣā of gr̥dhrasī:**

Gr̥dhrasī is a vātavyādhi characterized by ruk (pain), toda (pricking pain), stambha (stiffness) and muhu spaṇdana (frequent twitching) according to Caraka Samhitā. These symptoms initially affects sphik (buttock) as well as posterior aspect of kaṭi (waist) and then gradually radiates to priṣṭha (posterior aspects) of ūrū (thigh), jānu (knee), jaṅghā (calf) and pāda (foot) in the peculiar order.

According to Suśruta Samhitā; there are two kaṇḍarā in the leg that gets affected.

- One extending distally from the pārṣṇi to the toes,
- and other extending above from the pārṣṇi to the viṭapa

These two kaṇḍarās on getting afflicted with the vāta doṣa, limits the extension of the legs and is known as gr̥dhrasī.

**Paryāya of gr̥dhrasī:**

**Riṅghinī- by Vācaspatimīrā**

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The word riṅghinī means the disease that cause to creep or crawl or that makes a person to go slowly. It may be a more coincidental observation that displacement of the soft annulus is the prime pathology of sciatica as referred by the word riṅghinī.

According to the śabdakalpadruma this term refers to skhalana, meaning displacement.

**Raṅdhrinī**

This term is used by Dalhaṇa while commenting on Suśruta Samhitā, indicates weak point or rupture. Disc is the weakest point in the lumbar spine and tends to rupture causing sciatica as indicated by the word raṅdhrinī.

**Radhinā\***

This term is used by Aḍhamalla and Kāśīrama in their dīpikā and gūḍhārtha dīpikā commentary on Sārṅgadhara Samhitā. It indicates pressing, compressing or destroying.

Compression of the nerve roots is the primary pathology of radicular pain in sciatica as referred by the word radhinā.

These terms mentioned above are used only by commentators.

**NIDĀNA PAÑCAKA**

The knowledge of disease is obtained by the study of nidāna pañcaka, which are used in the diagnosis of the disease.

**NIDANA**

Specific nidāna of gr̥dhrasī is not elaborated in the classics. The root cause of vātavyādhi is mentioned as either dhātu kṣaya or mārgāvaraṇa. Since Gr̥dhrasī is mentioned as vātavyādhi of nānātmaja type and therefore all the factors that precipitate vāta prakopa as well as nidāna factors of vātavyādhi in general can be taken as the nidāna of gr̥dhrasī.

**PURVAROOPA**

Caraka samhitā has mentioned that avyakta lakṣaṇa as the pūrvarūpa of vātavyādhi. Gr̥dhrasī being a vātavyādhi, the pūrvarūpa of vātavyādhi may be considered as the pūrvarūpa of gr̥dhrasī too. While clarifying the word 'avyakta' Cakrapāṇi states that few mild symptoms can be considered as pūrvarūpa.

When the symptoms of gr̥dhrasī such as ruk (pain), toda (pricking pain), muhu spaṇdana (twitching), stambha (stiffness), tandrā (drowsiness), aruci (loss of taste) and gaurava (heaviness) manifested initially in mild form than it can be called as pūrvarūpa of gr̥dhrasī.

**RUPA**

Caraka Samhitā has listed the cardinal symptoms of gr̥dhrasī as

ruk (pain), toda (pricking pain), stambha (stiffness) and muhu spaṇdana (twitching). Cakrapāṇi states that the pain starts from sphik (buttock) which radiates to kaṭi (waist), ūru (thigh), jānu (knee), jaṅghā (calf) and pāda (foot) in peculiar order. Also sakthi ukṣepaṇa nigraha (impossibility to lift the lower extremities) is added to the list of cardinal signs by Suśruta Saṁhitā and Aṣṭāṅga Hṛīdaya.

Tandrā (drowsiness), gaurava (heaviness), aruci (loss of appetite), bhaktadveṣa (rejection of food) and mukhapraseka (excessive salivation) are mentioned as symptoms in vāta-kaphaja type of gṛdhrasī.

The symptoms are described in details here:

#### 1.RUK

It is included under vāta prakopaka lakṣaṇas by Aṣṭāṅga Hṛīdaya. Arūṇadatta interprets ruk as continuous pain. Symptoms of vitiated doṣa are manifested by their guṇa, karma and dravya. Ruk is the karma manifestation of vāta. When associated with kevala vātaja, it is severe and continuous, but when combined with kapha it may be mild or less severe. It is included under majjā pradoṣaja lakṣaṇas by Caraka Saṁhitā which signifies the involvement of majjā dhātu in the production of the ruk. The pain in gṛdhrasī is attributed from sphik and then radiates through kaṭi, pṛṣṭha, ūrū, jānu, jaṅghā up to pāda as stated by Cakrapāṇi (hip to foot).

#### 2.TODA

It means pricking sensation and is caused by vitiated vāyu, included under vātaprakopaja vyādhis by Mādhava and Aṣṭāṅga Hṛīdaya. It is also the karmātmaka manifestation of vitiated vāyu. In gṛdhrasī, toda may be taken as present along the path of sciatic nerve.

#### 3.STAMBHA

Stambha refers to the feeling of tightness and rigidity throughout the leg and is included amongst the eighty nānātmaja vātavyādhis. Arūṇadatta defines it as inability to flex the limbs. While Hemādri comments it as loss of movement. When the śīta and rūkṣa guṇa of vāta affects the muscles of the legs; the movements of legs, especially flexion at the hip joint and extension at the knee joint gets restricted. When vitiated doṣas affect snāyu, śīrā and kaṇḍarā, than stambha, sphuraṇa and supti are produced. Gṛdhrasī is produced when this process takes place in lower limb. The feeling of tightness results because of improper circulation of rakta (blood) in the affected part and because of vitiated vyāna vāyu, the sarivahana of rakta is partially affected. Regarding the originating site of stambha, Cakrapāṇi commented that it starts from the sphik (hip) region first and gradually towards the kaṭi (lumbar region) etc.

#### 4.SPANDANA

This refers to the throbbing, pulsating or trembling sensation felt in the affected leg. By the word spaṇdana, Madhukoṣa signifies kaṁpana i.e. certain kind of movement. It is also due to vitiated vāyu particularly vyāna vāyu and probably chala guṇa of vāyu may be responsible for spaṇdana.

Spaṇdana is a kind of rapid involuntary movement in the leg, also called as muscular twitching or fasciculation which is experienced by the patient on and off in the leg. Hemādri uses the word sphuraṇa for spaṇdana. According to him, sphuraṇa occurs in almost all the joints like jānu (knee), ūrū (thigh), jaṅghā (calf), etc.

#### 5.SAKTHI KSHEPANA NIGRAHA:

This term was first mentioned by Suśruta saṁhitā. It signifies restricted movement of the affected limb and the patient is unable to extend the leg i.e. prasaraṇa of the leg becomes difficult.

Aṣṭāṅga Hṛīdaya modified the term kṣepa as utkṣepa which means upward movement/elevation/raising. Arūṇadatta clearly stated this by 'caraṇa uddhāraṇa avasare nigraṅhātī' meaning difficulty to lift the leg.

On analyzing the symptoms in the light of contemporary medicine,

it appears very similar to the restricted SLR (straight leg rising) test which is done to assess the extent of degree of limitation of the limb (hip) flexion, when knee is extended.

#### 6.KATI- URU- JANU MADHYE BAHUVEDANA:

This symptom of gṛdhrasī is mentioned by Hārīta saṁhitā. It refers to the severe pain experienced at kaṭi (low back), ūrū (thigh) and jānu (knee) region.

The specific features of vātaja and vātakaphaja gṛdhrasī are given below:

##### Vātaja gṛdhrasī:

##### 1.Dehasyappravakratā:

This sign is not mentioned in bṛhatrayī but can be traced in laghutrayī. The patient assumes a typical posture because of extreme pain felt in the limb. The body appears to be in tilted position mostly to the affected side as the patient keeps his leg slightly flexed at the hip and knee. The patient assumes a typical limping posture because of ruk (extreme pain), stambha (stiffness) and toda (pricking pain) etc. Whenever the vāta is provoked in extreme degree the above symptoms may appear.

##### Suptatā:

This symptom is explained by Bhāvaprakāśa and Yogaratnākara. Supti (numbness) is produced by śīta guṇa. As both vāta and kapha possess śīta property, both are responsible for producing supti.

##### Vata kaphaja gridrasi

##### 1.Tandra

Tandrā is due to tamo guṇa of vāta and kapha doṣa. The lakṣaṇa of tandra are inability of the sense organs to grasp their subject, heaviness of the body, fatigue without any work etc.

##### 2.Gaurava

Gaurava refers to feeling of heaviness. It is especially due to gūrū guṇa of kapha. Patient feels heaviness all over the body especially in the legs and this further makes the movement of the leg difficult.

##### 3.Aruci

Here mainly bodhaka kapha vitiation and rasa duṣṭi occurs. It may be regarded as a subjective symptom where patient fails to appreciate the taste in the mouth irrespective of his appetite. Involvement of kapha doṣa has much to do with the manifestation of aruci, because the seat of bodhaka kapha is jihvā which does rasa jñāna.

##### 4.Mukhapraseka/lālāpraseka :

This feature is described in laghutrayī. This symptom occurs due to bodhaka kapha vitiation and due to presence of āma in body.

##### 5.Bhaktadveṣa:

When kapha vāta vitiation occurs in gṛdhrasī, the power of agni is decreased and leads to āma which causes feeling of heaviness in the stomach and develops dislike for food.

##### 6.Staimitya:

Patient feels as if wet cloth is wrapped around his leg. Hemādri stated it as pramilaka.

##### 7.Vahnimārdava:\*

The properties of agni especially jatharāgni will diminish as vitiated kapha is the anubāndhi doṣa, and as a result agnimāndya takes place which again leads to production of āma and aggravates the vyādhi.

##### UPASAYA - ANUPASAYA

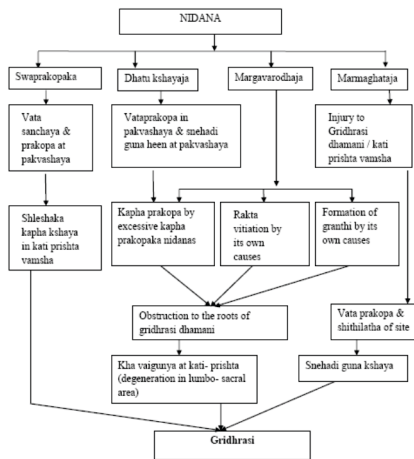
When identical symptoms having two or more disease are encountered, the disease could be best differentiated by adopting upāśaya. Upāśaya is the suitable use of drug, diet and behavior, which are contrary to etiology or disease or produce effect contrary to them, while anupāśaya aggravates the disease.

Upāśaya for gṛdhrasī has not been mentioned particularly. If there exists an uncertainty whether the disease is ūrūstambha or

gr̥dhrasī than we can adopt upaśaya to differentiate between the two. If symptoms aggravate on the application of oil, then we may infer it to be ūrūstambha and if the symptoms alleviate we may infer it as gr̥dhrasī. The nidāna mentioned for vātavyādhi, gr̥dhrasī are considered as anupaśaya. Upaśaya- anupaśaya for gr̥dhrasī as per vātavyādhi are as follows:

Upashaya ahara	Vihāra
Godhūma (wheat), māṣa (black gram), puraṇaśāli (old rice), vārtāka (eggplant), paṭola (cucumber), rasona (garlic), taila (oil), ghṛta (ghee), kṣīra (milk), drākṣā (raisins), dādīma (pomegranate) etc.	Abhyaṅga, tarpaṇa, svedana, nivāta sthāna, ātapasevana, nasya, uṣṇaprāvāraṇa, basti etc.
Anupashaya Āhāra	Vihāra
Mudga (green gram), kalāya (jujuba), br̥hatsāli (rice), yava (barley), rājamāṣa (cow pea), kodrava (kodo millet), kṣāra (ashes), tikta (bitter) and kaśāya (astringent)rasa etc.	Cīntā, bhaya, śoka, krodha, vegavidhāraṇa, cankramaṇa, anaśana, ativyavāya, jāgaraṇa etc.

**SAMPRAPTI**



Nidāna	Vātaprakopaka nidāna
Doṣa	Vāta- apāna and vyāna Kapha
Duṣya	Rasa, rakta, māmsa, meda, asthi, kaṇḍarā and snāyu
Agni	Jatharāgni and dhātāvāgni
Āma	Jatharāgnimāṇḍyajanita and dhātāvāgnimāṇḍyajanita
Udbhavasthāna	Pakvāsāya for vātaja and āmāsāya for vāta-kaphaja gr̥dhrasī
Adhiṣṭhāna	Snāyu and kaṇḍarā of pārṣni, pratyāṅguli, sphik, kaṭi, ūrū, jānu, jaṅghā, and pāda
Srotas	Rasavaha, māmsavaha, medavaha, asthivaha
Srotoduṣṭi	Saṅga and vimārgagamana
Rogamārga	Madhyama
Bheda	Vātaja and vāta-kaphaja
Svabhāva	Cirakāri

**ŚĀPEKṢA NIDĀNA OF GR̥DHRASĪ**

In case of gr̥dhrasī, there is no confusion in diagnosis, because gr̥dhrasī shows a very clear pattern of radiating pain in the lower extremities. Some diseases i.e. ūrūstambha, khalli, khañja and paṅgu have some parallel symptoms which must be differentially diagnosed from gr̥dhrasī.

In ūrūstambha, there is affection of one or both legs and the patient feels dāha and glāni in jaṅghā and ūrū; śīta sparśa, vedanā and patient also feel that the legs are not the part of his own body. The patient is unable to stand, to step or to walk and numbness occurs. Though the patient is unable to lift the legs and the legs are painful, the pain is neither radiating nor it is restricted to the

posterior portion of the legs.

The severity of pain is more in khalli than gr̥dhrasī.

The cardinal symptoms in khañja is ākṣepa of kaṇḍarā and in paṅgu is gati vighāta either one or both legs.

**ŚĀDHYA-ASĀDHYATĀ**

Suśruta Samhītā considers vāta vyādhi as one among the mahāgada due to its tendency to be fatal or incurable. If the patient of vātavyādhi has the complications like śoṭha (edema), suptatvacam (tactile senselessness), bhagna (fracture), kampa (tremors), ādhmāna (distention of abdomen with tenderness) and pain in internal organs the disease is incurable.

Aṣṭāṅga Hṛidaya states all the vāta vyādhi as mahāroga. All the classics opined them as kṛccha sādhyā (difficult to cure). Caraka Samhītā has mentioned that if the disease is of recent origin (nava) and without any associated disease, it is curable. Vātavyādhi becomes asādhyā (incurable or hard to cure) after a certain period of time or if they are neglected (upekshya).

However, the prognosis of the disease depends on many other factors like the bala of nidāna and rogi, the strength of doṣa prakopa, the sthāna of the vyādhi, rogamārga, dhātuduṣṭi etc.

When the gr̥dhrasī is associated with vāta and kapha doṣa, the chances of cure are easier than that when it is occurred due to vāta doṣa (kevala vata) only.

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