Conceptual Study on the Management of Gridhrasi

Abstract

Back pain is very common now a days in India and abroad, but its prevalence varies according to the definitions used and the population studied. A large study reported an incidence of 28.0 episodes per 1000 persons per year and for low back pain with sciatica an incidence of 11.6 per 1000 persons per year. Low back pain affects men a little more than women and is most frequent in the working population, with the highest incidence seen in those aged 25-64 years. Modern medicine is having no specific treatment especially for sciatica that’s why an elaborate study has been undertaken to have an in depth knowledge about the concept of sciatica in Ayurveda terms.

As the disease has not been described elaborately in Ayurveda classics, it has been seen that physician face a difficulty in treating such patients. So present study has been taken to understand the concept of disease Gridhrasi and to achieve a treatment protocol accordingly.

Ayurveda categorized Gridhrasi as one of diseases caused by vitiation of Vata (one of the principle dosha in the body, responsible for the movement and functionality of the body). Sometimes even Kapha vitiation along with Vata (vata kapha) also causes Gridhrasi.

Treatment in Ayurveda is aimed at restoring the equilibrium through correction of the underlying functional in-equilibrium. Ayurvedic treatments for Gridhrasi concentrate on bringing back the aggravated Vata or Vata Kapha to the state of equilibrium and thereby to the state of health.

Keywords: Gridhrasi, Sciatica; Vata; Kapha; Ayurveda; Charaka

Introduction

With the life style changes, Low Back ache is very common complaint now a days in every age group in India and abroad, and it’s in ceasing day by day. A large study reported an incidence of 28.0 episodes per 1000 persons per year and for low back pain with sciatica an incidence of 11.6 per 1000 persons per year. Low back pain affects men a little more than women and is most frequent in the working population, with the highest incidence seen in those aged 25-64 years. Modern medicine is having no specific treatment especially for sciatica that’s why an elaborate study has been undertaken to have an in depth knowledge about the concept of sciatica in Ayurveda terms.

Ayurveda classics have given a detailed description about the treatment of vata vyadhi but detailed description about treatment of gridhrasi is mentioned by few experts only.

Present study has been undertaken to have the clear understanding of the pathology of gridhrasi and to finalise the treatment protocol according to Ayurveda classics.

Gridhrasi is the most obstinate and prominent, one amongst the 80 types of nanatmaja disorders. Gridhrasi is a painful condition in which the person can’t sit and walk properly that hampers his normal activity. Almost all signs and symptoms of Gridhrasi resemble with the condition of sciatica, as described by the modern texts. Its detail symptomatology has been described in ayurveda classics since 5000 years while this condition was known to modern medical science just two centuries ago. As 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.

As the disease has not been described elaborately in Ayurveda classics, it has been seen that physician face a difficulty in treating such patients. So present study has been taken to understand the concept of disease gridhrasi and to achieve a treatment protocol accordingly.

Nidana (Etiology) of Gridhrasi

In case of Gridhrasi specific nidana has not been mentioned. So the causative factors mentioned producing Vata vyadhis are considered as nidana and it has been tried to understand the manner in which they produce the disease. Actually there is not much difference in the case of nidana in vatavyadhis. Mainly the difference is only in samprapti in all vatavyadhis. Vata pralopaka karanas are almost same and the difference like Gridhrasi, pakshaghata etc. are only due to the samprapti vishesa of vitiated dosha [1] Charaka [2] and Bhavaprakasha [3] clearly mentioned the causative factors of Vata vyadi, but in Sushruta samhita, Astanga Sangraha and Astanga Hridaya etc. the causes of Vata vyadi have not been clearly described. However, in these texts the causative factors of provoked Vata dosha are available. Since Gridhrasi is considered as nanatmaja type of disease of Vata, the...
provocative factors of vata can also be taken as the causes of Gridhrasi.

In addition to this, in Charaka Samhita, Astanga Sangraha and Ashtanga Hridaya, the specific causes of Vata Vyadhi i.e. dhatukshaya and avarana have also been mentioned [4].

**Purvarupa of Gridhrasi**

As Gridhrasi is one of the 80 types of Vatavyadhi, the minor symptoms present before the manifestations of this disease may be taken as purvarupa.

**Rupa of Gridhrasi**

Pain starting from Sphik and radiating towards Kati, Pristha, Uru, Janu, Jangha and pada in order, is the cardinal symptoms of Gridhrasi. Ruk and Toda are the two main words used for the descriptions of the pain. Charak has also described Stambha and Muhuspandana [5]. Shusruta and Vaghbhatta have given sakthikshepanigraha as the cardinal sign [6,7]. Some signs and symptoms like Deshasyapi pravakrata, Janu uru sandhi spurana sakthikshepanigraha as the cardinal sign [6,7]. Some signs and descriptions of the pain. Charak has also described Stambha of gridhrasi. This is one of the 80 types of Vatavyadhi, the minor symptoms present before the manifestations of this disease may be taken as purvarupa.

Symptoms of Vatakaphaja Gridhrasii

i. **RUK (Pain):** This is an important symptom of Gridhrasi and in fact this typical pain readily opines that this pain starts at sphik (hip) and later on it affects kati (Waist), Pristha (back) Uru (Thigh) Janu (Knee) Jangha (calves) and Pada (foot) respectively. Obviously this pain is present along with the area distributed by sciatic nerve.

ii. **TODA (Pricking pain):** Charaka and Madhava have mentioned this symptom. Toda is pricking like pain felt along the distribution of sciatic nerve.

iii. **Stambha (Stiffness):** Charaka has mentioned the stambha felt in the affected part of the patient of Gridhrasi. This is a feeling of lightness or rigidity throughout the leg. On account of the pain in the distribution of nerve the person tries to make as little movement as he can. As a result the muscles of the leg become rigid and the stambha is experienced.

iv. **Spandana (Twitching):** This also occurs as a sensation of something pulsating or throbbing. This is due to muscular twitching. This may be in the buttock region in the thigh, legs or even in the small muscle of the foot and is mostly in the muscle supplied by the sciatic nerve.

v. **Sakthikshepana Nigrahanti:** Shusruta has mentioned this symptom. Commenting upon the above symptom Dalhana opines that the kandara that forbids the movement of the limb is called Gridhrasi. This is an additional manifestation of limited mobility of the affected leg. The word kshepa means prasaran or extension. The patient has to keep the leg in flexed position because in extended position the pain will be more.

Vaghbhatta says this lakshana in a different way by using the word "Utkshepana" in the place of ‘Kshepa’ which means that the patient is unable to lift the leg. Arunadutta very clearly defines it by using the word ‘Pada udharnare Ashakti’ means the patient is unable to elevate or lift the leg.

vi. **Dehasyapi pravakrata:** Madhava described the symptom on account of the pain that means the lateral and forward bending of body. The patient of Gridhrasi keeps the leg in flexed position and tries to walk without much extending the leg. Thus this is whole body is tilted on the affected side and gives him a bending posture or limping. The gait is also typical.

Symptoms of Vatakaphaja Gridhrasii

i. **Tandra:** Tandra is one of the symptoms of the Gridhrasi caused by Vatakapha. Acharyas opine that Tandra is the outcome of the vitiated vata and kapha. In the case of Gridhrasi also it can be said that domination of Vata and kapha causes Tandra. Charaka gives the causative factor of tandra like food substances having the qualities like madhura, Snigdha, Guru etc. and some mental factors are Chinta, shoka etc. It can be observed that the ultimate result of the above is the vitiation of vata and kapha.

ii. **Gaurava:** Gaurava is the feeling of heaviness of the body. Heaviness is the quality of Kapha. So when the Kapha is vitiated in the Vata kaphaja type of Gridhrasi, Gaurava occurs. Anyway only Charaka has mentioned this symptom and others have not included it.

iii. **Arochaka:** Charaka, Madhava and Bhavaprakasha have mentioned Arochaka as a symptom of Gridhrasi. It is a subjective symptom where patient loses the taste but appetites remains intact. Comparing to Vata it seems that Kapha has the more roles in manifestation of Arochaka because the seat of Bodhaka Kapha is Jiwha (Tongue). So it is dear that this symptom is due to the vitiation of kapha especially Bodhaka Kapha.

iv. **Agnimandy:** Agni is usually referred to as the state of Pachaka pitta of the body. When affected by the vitiated Kapha, the Pachakapitta fails to perform its normal function. This may be due to the antagonist properties of the Pitta & Kapha. So in the case of Gridhrasi also where Kapha is dominant, role of Ama must be taken into consideration. Agnimandy leads to the formation of Ama which in turn produces further Agnimandy.

v. **Mukhapraseka:** Mukhapraseka is caused by the vitiated Kapha. In Madhavanidana and Bhavaprakasha Mukhapraseka has been mentioned in vatakaphaja type of Gridhrasi. Vata may have a little role to play in case of Mukhapraseka. Praseka has been mentioned due to the involvement of Ama by some Acharyas. In nutshell it can be said that Mukhapraseka is caused by the involvement of Kapha and ama.

vi. **BHaktadwesha:** This symptom is also produced due to the involvement of Kapha and ama. Here the patient shows aversion towards the food substances in general. Both

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Madhava nidana and Bhavaprakasha have mentioned this symptom in the type of vatakaphaja Gridhrasi.

vii. Staimitya: This symptom is described by Harit only. Staimitya means timidity (frozen sensation). Due to Kapha vitiation patient feels like some wet cloth has been wrapped around the limb.

Sapeksha Nidana of Gridhrasi

Urustambha and Khalli are the similar disease occurring in the leg with severe pain. Kanhja and Pangu also are the diseases of the lower limb which resemblance with Gridhrasi. In addition to this Gudagata Vata also requires a differential diagnosis with this disease.

The differential diagnosis of Gridhrasi from Urustambha and khalli \( ^2 \) disease can be made by considering the following points:

i. By the nature of radiating pain which starts from Prishtha and Kati portion is a characteristic of Gridhrasi and absent in other two diseases i.e. Urustambha and khalli.

ii. In Gridhrasi, sathikhepaka (leg rising) is being restricted, while in Urustambha patient feels heaviness in his thighs and difficulty in walking.

iii. Urustambha associated with Jvara, Chhardi, Aruchi, Angamarda etc. which are not usually found in Gridhrasi.

iv. In Khalli the severity of pain will be more than Gridhrasi and is generally proximal in nature.

v. In Kanhja and Pangu first and foremost symptom is paralysis which may be present in sciatica, only as late complication and no history of pain may be present in khanja and pangu \([13]\). Whereas in Gudagata Vata, in addition to pain, in the foot symptoms like shosha, retention of faeces, urine and flatus, colic, flatulence and formation of stone (Ashmari) may also be present\([14]\).

Samprapti of Gridhrasi

Specific samprapti of Gridhrasi is not described in the classics but being a vata vyadhi its samprapti vyapara is on the similar lines of vatayadhyes. Gridhrasi is shoolapradhana vatayadhy and shoola (pain) cannot be produced without involvement of vata dosha. Gridhrasi is enlisted in 80 types of nanatmaja vatayadhyes hence predominance of Vata dosha in its samprapti is clear.

Vyana and Apana Vata are especially vitiost out of five types of Vata. Gati, prasaraana (extension) akunchana (flexion), utkshepana (lifting) etc. are the functions of prakrut vyana vata. The hampered Sathikhepaka karma indicates Vyana dusti. Causes and adhisthana of Gridhrasi resemble to adhisthana of and causes of apana dusti. Hence apana vitiation is prominent. Though Vata is a prominent dosha, sometimes Kapha is anubandhi dosha, but independently cannot produce Gridhrasi. Pitta is the least involved dosha. Sometime when ‘daha’ lakshana is present pitta may be involved as anubandhi dosha.

All these lakshan as show similarity with the signs and symptoms of degenerative diseases of bone like osteomalacia, tuberculosis, spondylitis etc. According to Sushruta in this disease, the vitiated dosha affects the kandara and thus, the manifestation. Charaka explains that kandaras are the upadhatu of rakt dhatu. Chakrapani mentions that kandara may also be taken as sthula snayu. Snayu is muladhatu of mamsa as well as upadhatu of meda. So here rakt, mamsa and meda may be taken as dushya in the disease Gridhrasi.

Further the shhana of vayu has been mentioned as asthi and there is an inverse relation between each other, for instance increasing vayu, causes asthi kshaya which leads to the further prakopa of vata. As mentioned above, Gridhrasi is a nanatmaja disorder of vata and sathikhepaka nigraha is main symptom which performed by sandhi. So the involvement of sandhi may also be there. In this sandhi, asthi kshaya type of deformity is more possible. In the case of anubandha of kapha which is formed from jala mahabhuta, growth may also be possible leading to the avarana of vata. Sometimes prakupita vata may cause samsa-bhramsa in the involved sandhi and thus protrusion of intervertebral disc may result, leading to Gridhrasi. The prakupita vata when involves mamsa its sudden sankochha may also cause bhramsa in the sandhi, leading to Gridhrasi.

Charaka mentions that pain starts from kati and spikh to the lower limbs. Kati sandhi is mainly involved in this disease. Some diseases of spikh sandhi also lead to the condition resemblance with Gridhrasi. Some Acharyas correlate nervous tissues with mastulunga and thus to majja. As Gridhrasi nadi is involved in this disease, so majja dhatu may naturally also be involved.

On the basis of ashraya ashrayi bhava, with the vitiation of vata and above mentioned dushyas, their srotasas are also known to be involved. Hence rasavaha rakavtavaha, mamsavaha, medovaha asthivaha and majjavaha srotas may be involved in this disease. The main udhavaha sthana of this disease is pakwashaya because it is a nanatmaja vatayadhy. Amashaya may also be considered as an udhavasasthana in the case of vata kapha type of Gridhrasi.

Chhraduttha has described kati and spikh as the initial sites where from the disease starts. Therefore kandara of parsni and pada anguli which originates from the mastulunga when compressed, in kati and spikh pradesha Gridhrasi disease occurs. Sanga and srotarodha type of vikruti occurs in the marga of the Gridhrasi nadi. Asthivahaya of the bones of katisandhi due to rukshadi ahara vihara of the patients may be main causes. Prakupita vata by causing sankochha in the mansapesi and kandara of katisandhi may cause sthanachyuti in intervertebral disc that may lead to this disease. New growth by the anubandha of kapha may also produce the disease by causing margavardhata of vata. Both jatharagni and dhatwagni are deranged giving rise to ama of both origins cause srotarodha in the adhisthana. Adhryathi arbuda granthi, apachi, shauliya etc. are the examples of improper asthi, mamsa, meda dhatuvrddhi in improper place. In modern medical science also osteophytes spurs, tumours, cysts, neurofibromas are described as the causes of sciatica. Due to such srotarodha in the way of Gridhrasi nadi, lalashana as produced like ‘ruk’ toda, stmbha etc. When kapha is involved lalashanas like tandra, gaurav, arochaka are also produced in addition to vatic lalashana.

The two types of samprapti have been discussed before as dhatuksheya and margavardhata. Many times when lha vaigunya is present at kati, spikh sandhi, snayu, kandara and nadi some
kind of trauma or exposure to chill etc. act as a vyanjaka hetu. Sometimes without any previous khavaigunya severe trauma or injury to lumbosacral region leads to sudden contraction of mansapeshi of katisandhi which inturn leads to sransa or bhramsa of kasherukasthi of katisandhi (Prolapse intervertebral disc) and vataprakopa. This leads to sanga and srotarodhajanya vikrut in the course of Gridhrasi nadi. There is pidan of Gridhrasi nadi and symptoms of Gridhrasi are produced. This can be said as agantuja nidana janya Gridhrasi.

Samprapti Ghatakas in Summary

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<td>Kushtha</td>
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<td>Pakwashaya</td>
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<td>Pritha, kati, sphik</td>
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<td>Adhospakthi uru</td>
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<tr>
<td>Vrandha</td>
<td>Ruk, toda, stambha arochaka, suptata, bhaktadwesa, tanda, gaurava</td>
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Sadhyasadhyata of Gridhrasi

A separate prognosis has not been mentioned for Gridhrasi. It may be said that Gridhrasi in which the vitiated vata is seated in majjadhatu or if Gridhrasi is accompanied with khuddavata, angasosha and stambha may or may not be cured even after careful treatment. But if this condition occurs in a strong person and is of recent origin and without any associated disease, then it is curable. Sushruta mentions that a patient of vatavyadhi, if develops the complications like shunam (oedema/inflammation) suptatwacham (Tactile senselessness), Bhagnam (fracture), kampa (tremors) adhmmana (distension of abdomen with tenderness) and pain in internal organs, then he does not survive.15

Chikitsa of Gridhrasi

Gridhrasi is being a Vata vyadhi, general treatment is advised for that of Vata. The first and foremost principle to be adopted in treatment is to avoid the nidanas that cause Gridhrasi.

According to the Dosha Kopa, Gridhrasi can be divided into three stages. It should be studied carefully before starting the treatment as the stage varies from time to time.

Stages of Dosh prakopa Treatment

a. Minimum (vata) Langhana
b. Moderate langhana-Pachana
c. Maximum (ama/vata kapha) Shodhana.

Before starting the treatment we should study the patient and disease, because in case we are misguided by the patient or due to ignorance, inappropriate medicines will create serious complications.

In all stages of Gridhrasi, expect in Amavastha, oil preparations is suggested by all Acharyas both externally and internally. But in Ama and Vata Kapha Gridhrasi Sneha prayoga will not give any positive result. In this, Ruksha prayoga should be advised.

In first two stages-minimum & moderate, in Kevala Vata, Shamana sheha is advised by Acharyas. In the third stage, Shodhana should be given, because in this case, shamana treatment will not give any good result without purification of the body. After the Shodhana, shamana can be used. So first we should go through Shodhana therapy. Pre operative process helps to bring back the doshas to their respective Asayas. Here preoperative processes is of two kinds-Snehana and Swedana.

Discussion on the Treatment

Snehana

Taila is supposed to be the best for Vata as Vata is Ruksha, Sheeta, laghu and khara and Taila has just opposite qualities like Snigdha, Usna, Guru, Piahila etc. Thus Taila alleviates Vata and at the same time does not increase Kapha as it is ushna. A type of internal Snehapana helps in Kledana and Vishyandana of Doshas. By its Apya, Snidha, Guru, Pichhila guna it brings the Doshas to Kostha and then further it driven out by shodhana. It destroys the
malasanghata, does kosthasudhi Agnidipita and improved vigour and complexion.

Sneha is used externally in Abhyanga, Pariseka, Avagaha etc. Sarsanendriya is the place of Vata. Since Abhyanga is done on the skin, it alleviates Vata. Shusruta has given a calculation of time in which sneha in Abhyanga reaches different Dhatu. With this reference it can be said that, Sneha applied on skin for 900 matras can reach up to Majja Dhatu. Thus it can be useful in Asthimajagata Vatavyadhis also. Abhyanga increases body capacity to bear trauma and hard work, which is the maximum occurring cause in Gridhrasi. Abhyanga keeps away the aging process. Hence it can slowdown the degenerative process occurring in different Dhatu (Especially in the spine the sciatic nerve and the muscles of lower extremities in Gridhrasi).

Swedan

Charakacharya has pointed that even dry wood can be made soft and flexible with Sneha and swedana then why not be living organs.16 Gridhrasi is clearly mentioned in the list of swedanarha and also the cardinal and associated features of Gridhrasillike shool, Stambha, Sanakcho, supiti have also been mentioned. Gridhrasi is a Vatavyadh and sometimes Kaphanubandhi. Swedana is also indicated in vatavyadhis as well as Vatakaphaja Vyadhis.17 Gridhrasi is a shoolapradhana vatavyadh and shulavayuparama (destruction of pain) is the sign of proper swedana.18 Nirgundi patra pinda sweda is effective in Gridhrasi as it Act as snehana as well as swedana.

Mridu Virechana

If the vitiated Doshas are more in amount and no relief is acquired by Sneha, Swedana, then only Mridu Virechana is indicated for the Dosha shodhana. They have already brought to koshtha by Sneha and swedana and can be easily derived out by Mridu Virechana. Tripruttta, Eranda, Arayvadhya etc. are used for this purpose. Virechana removes the maladrayvas, increases Agni, purifies srotas, Dhatus and destroys the vyadhi.18 Though it is especially indicated in Pittapradhana and Raktapradoshaja Vyadhis, it is also useful in Vatavyadhis as it does the systemic purification of Doshas and affects the whole Dhatu pariposhan karma.

As far as etiopathology of Gridhrasi is concerned ‘Vata Vaigunya’ is important. It essentially plays a role in over stimulation of the nerve as experienced by severe pain in the course of affected part. In removing the ‘Vata Vaigunya pertaining to the disorder, Shodhan therapy should be indicated. Among the shodhan therapy ‘Sneha Virechana’ with ‘Nirgundi patra swaras’a has a specific indication.

For the Mridu Virechana Eranda taila and Nirgundi Patra Swaras should be mixed and given to Gridhrasi patients. This mixture relieves vata from kati pradesha. It clears the Apana Vata which is the main factor of Gridhrasi.

Bastikarma and concept of selection of the Basti Karma

Basti is the important karma in the treatment of Vata vyadhis. It is indicated in almost all vatavyadhis and especially indicated in the patients who have disability, stiffness in the extremities, pain in the organs, and fractures in the bones. Severe constipation, loss of appetite etc. majority of the symptoms is present in the patients of Gridhrasi. As Basti stays in pakwashaya, pelvises, organs below umbilicus get benefitted through virya of the Basti dravyas, transmitted all over the body. It sucks out Doshas from head to toe as the, sun, though miles away, with its ray’s sucks the water from the plants on the earth. No other chikitsa is as capable as Basti to tolerate and regulate the force of Vata [19]. Niruha Basti if used methodically and skillfully purifies mala, Tridoshas and Saptadhatus, drives out Doshja Sanchaya from the whole body, increases Agni, intellect, life span, chesek aging process [20].

In Anuvasana Basti Sneha is used. Nothing is as superior as Taila in destroying Vata as Taila with its Snigdha Guna destroys Rukshata and with its Guru and Sheeta Gunu destroys Laghu and Sheeta Gunu of vata respectively. As water poured into root nourishes the whole tree and blossoms, oil given into the anus nourishes the whole body, increases Sukra Dhatu, and enhances fertility.

Agni Karma as Specific treatment of Gridhrasi

In Charaka Samhita Bastikarma (Niruha and Anuvasana basti), Siravedha and Agnikarma (between kandarsa and Gulpha) has been advised [21]. Sushruta has advised Siravedha at Janu after flexion [22]. Astanga sangraha and Astanga Hrdaya have also advised Siravedha four Angula above the Janu [23]. Chakradutta has given the treatment of Gridhrasi in details. He has stressed that basti should be administered after proper Agnidipan, pachan and Urdhvasodhana. He has said that administration of Basti before Urdhvasudhi (Purification by Vaman, Virechana etc.) is meaningless. He has mentioned a small operation with prior Sneha and Swedana to remove Granthi in Gridhrasi and also siravedha four Angula below Indrabasti marma. If not relieved by this treatment, then Agnikarma at Kanishhika anguli of pada has been suggested.

Yogaratnakara has advised siravedha in the area of four Angula around Basti and Mutreendriya, if this fails Agnikarma in the little finger of the leg is advised. He has mentioned Mahavishagarbha Taila, Vajigandhadi Taila, lasuna etc.

Acknowledgment

None.

Conflict of Interest

None.

References


