



UNDERSTANDING *GRUDHRASI*: AN AYURVEDIC PERSPECTIVE ON LOW BACK PAIN AND SCIATICA

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Abstract: Low back ache is the most debilitating neurological problem. A large population suffers from low back ache. The most common musculoskeletal disorder affecting the movement of leg is low back pain. Our Ancient *Acharyas* had identified this problem long back and named it '*Grudhrasi*'. *Grudhrasi* in ayurveda is a *rujapradhana nanatmaja vata vyadhi*, where the patient experiences pain primarily in the *sphik pradesha* which later radiates to *kati* and to leg through the posterior aspect of *uru*, *janu*, *jangha* and *pada* where the patient finds difficulty in extending the leg which has similar presentation of sciatica intervenes with the functional ability of low back & lower limbs. The signs and symptoms of *Grudhrasi Roga* mentioned in classics exactly coincides with sciatica in which intense pain radiating from the gluteal region down the posterolateral leg to the foot more or less following the distribution of the sciatic nerve occurs.

In this article, attempt has been made to review the *Ayurvedic* classics text and related literatures to understand the disease *Grudhrasi*.

KEYWORDS : *Grudhrasi*, sciatica, *vatavyadhi*, *vata*, *kapha*,

INTRODUCTION

Pain is the most important reason for visiting a doctor for most patients. This age is the age of lifestyle disorders. In this modernizing world, people ignore their health to achieve their goals. Today's lifestyle and the nature of work add stress to normal health. Low back pain is aggravated by variables like overexertion, sedentary employment, and abrupt movements while travelling. Certain occupations are also directly producing the deformities in the bone, especially the joints of back. The most common musculoskeletal disorder affecting the movement of leg is low back pain. Our Ancient *Acharyas* had identified this problem long back and named it '*Grudhrasi*'. Gait of *grudhrasi* patient during walking resembles with '*Grudhra*'¹ (vulture) and hence the name given to it. *Grudhrasi* is a *Rujapradhan Nanatmaja Vaat Vyadhi*², intervening with the functional ability of low back and lower limbs. The cardinal features of *Grudhrasi Roga* are *ruk* (pain) starting from *sphik* (buttock) and then radiates to *kati* (waist), *prishtha* (back), *uru* (thigh), *janu* (knee), *jangha* (calf), and *pada* (foot) along with *stambha* (stiffness), *toda* (pricking pain), *spandana*³ (twitching), whereas in *Vata Kaphaj* type of *Grudhrasi*, *Arochaka* (aversion to food), *Tandra* (feeling of drowsiness), and *Gaurava* (feeling of heaviness) are found additionally.

The description narrated in these classics exactly coincides with the description of 'Sciatica'. The disease 'Sciatica' is named because of involvement of sciatic nerve. Sciatica is a disease with neurological symptoms pertaining to sciatic nerve⁴. Intense pain radiating from the gluteal region down the posterolateral leg to the foot more or less following the distribution of the sciatic nerve is known as Sciatica, which is commonly caused by nerve root compression or irritation⁵. The main cause behind the irritation of sciatic nerve is degenerative pathology of inter vertebral disc like bulging, desiccation, prolapse of intervertebral

disc. Although sciatica has several causes, compression of lumbosacral nerve is the principle cause. The most common cause of sciatica is a herniated or bulging lumbar intervertebral disc⁶.

NIRUKTI

'Grudh' is the *dhatu* which makes the word 'Grudhra' from which the word 'Grudhrasi' is derived.

"Grudhro mamsa lolupa manushya tam syati pidayati nashayati va"⁷

Grudhra is a bird known as vulture in English. This bird is fond of meat and eats flesh of an animal in such a way that he deeply pierce its beak in the flesh then draws it out forcefully, exactly such type of pain occurs in Grudhrasi and hence the name.

"Guidhram api syati so"

Further as in this disease the patient walks like the bird Grudhra and patient's legs become tense and slightly curved so due to the resemblance with the gait of a vulture, Grudhrasi term might have been given to this disease.

SYNONYMS OF GRUDHRASI

The synonyms (*paryaya*) of *grudhrasi* is as follows :

1. Ringhini

2. Randhrinee

3. Radhina

□ Ringhini – This word is used by *vachaspati misra* to denote Grudhrasi. The implication of which is *Skhalana* according to the *sabdakalpadruma*; which means displacement of particularly a *phichila* Substance⁸.

□ Randhrinee – *Dalhana* represents a weak point or rupture of a material which quotes Grudhrasi⁹

□ Radhina – The word is used by *Kasirama* and *Aadamalla* in their *Gudhartha Deepika* and *Deepika* commentary on *Sharangadhar Samhita*¹⁰ which means pressing, compressing or destroying. In this context, compression of sciatic nerve root leading to ridiculer pain may be most appropriate.

NIDANA OF GRUDHRASI

Nidana means that which gives the indication of the disease or the causative factor or etiology of a disease. According to the treatment point of view, *Nidana* is the most important because the basic principle of treatment is to avoid the *nidana* first and then treat according to the character of disease.

The particular causative factors of *grudhrasi* has not been mentioned in classics. As *grudhrasi* is considered as *Nanatmaja vaavyadhi*, so the etiological factors of *vatavyadhi* are considered as etiological factors for *grudhrasi*.

table 1. etiological factors for *grudhrasi*

AHARAJA NIDANA (DIETETIC FACTORS)	VIHARAJA NIDANA (BEHAVIOURAL FACTORS)	MANASIKA NIDANA (PSYCHOLOGICAL FACTORS)	ANYA NIDANA (OTHER FACTORS)
Ruksha, sheet, laghu anna, alpa anna; katu, tikta, Kashaya rasa Pradhan ahara; langhana, Abhojana,	Ativyayama, Ativayavaya, Atiprajagara, Vishama upachara, Plavana, Atiadhwa, Diwasapana, Vegadharan etc	Chinta Shoka Krodha Bhaya	Dhatukshaya, varsha ritu, Marmabhogata, margavarana, etc.

Due to all these factors, *vata* gets vitiated, and thus causes the *grudhrasi roga*.

PURVARUPA

The specific premonitory (*purvarupa*) of Grudhrasi has not been mentioned in the classics. *Acharya's* has mentioned that *Avyakata lakshana* is the *purvarupa* of *vatavyadhi*¹¹. *Chakrapanidatta* commenting on the word *Avyakata* mentions that few mild symptoms are to be taken as the *purvarupa*.

RUPA (Clinical features)

After *Dosha-Dushya Sammurchana* 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-sammurchana*. On the basis of signs and symptoms diagnosis of disease is possible.

table 2. clinical features of *grudhrasi*.

S.NO:	FEATURES	GRUDHRASI
1.	Site of Onset	<i>Ruk</i> (pain) starting from <i>sphik</i> (buttock) and then radiates to <i>Kati</i> (waist), <i>Prishtha</i> (back), <i>Uru</i> (thigh), <i>Janu</i> (knee), <i>Jangha</i> (calf), and <i>pada</i> (foot). According to <i>Harita Samhita</i> , <i>Kati uru janumadye bahu Vedana</i> . ¹²
2.	Nature of pain	<i>Ruk</i> , <i>Toda</i> and <i>Sthambha</i>
3.	Diagnostic feature	<i>Sakthi utkshepanigrahana</i> <i>Arundatta</i> explains it as <i>paadaudharaneashakti</i>
4.	Types	<i>Vataj</i> and <i>Vata-kaphaja</i>
5.	Aggravating Factors	<i>Vatakaphavardhakaahara</i> and <i>vihaar</i> <i>Vatavyadhi nidan</i> and <i>vatavyadhi prakopakaranas</i> .
6.	Relieving Factors	<i>Vatasyaupakrama-sneha</i> , <i>sweda</i> , <i>mridusamshodhana</i> , etc

The *lakashanas* described by *acharya Charka* can be related to unilateral radiating pain experienced in sciatica. The cardinal features of *Grudhrasi Roga* are *ruk* (pain) starting from *sphik* (buttock) and then radiates to *kati* (waist), *Prishtha* (back), *Uru* (thigh), *Janu* (knee), *Jangha* (calf), and *pada* (foot) along with *Stambha* (stiffness), *Toda* (pricking pain), *Spandana* ³ (twitching). Whereas in *Vata Kaphaj* type of *Grudhrasi*, *Arochaka* (aversion to food), *Tandra* (feeling of drowsiness), and *Gaurava* (feeling of heaviness) are found additionally.

According to *Bhavaprakasha*, *Dehapravakrata* in *Vataja* type of *Grudhrasi* and in *Vata-Kaphaja* type of *Grudhrasi* *Gaurava*, *Agnimandha*, *Tandra*, *Mukhapraseka*, *Bhaktadvesha* in addition of *Vataja* type *Grudhrasi* are found¹³.

SAMPRAPTI

Specific *samprapti* of *grudhrasi* is not explained in ayurvedic texts, but being a *vatavyadhi*, its *samprapti* is explained on the similar lines of *vatavyadhi*.

Vyana and *Apana Vata* are especially vitiated out of five types of *Vata*. *Gati*, *prasarana* (extension) *akunchana* (flexion), *utkshepana* (lifting) etc. are the functions of *prakrut vyana vata*. The hampered *Sakthikshepa karma* indicates *Vyana dusti*. Causes and *adhithana* of *Grudhrasi* resemble to *adhithana* 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 *Grudhrasi*.

table 3 : *samprapti ghatak* of *grudhrasi*¹⁴

NIDANA	<i>Vatapropaka ahara vihara</i>
DOSHA	<i>Apana vata</i> , <i>Vyana vata</i> and <i>Kapha</i>
DUSHYA	<i>Rakta</i> , <i>Mamsa</i> , <i>Meda</i> , <i>Asthi</i> , <i>Naadi Sansthan</i>
SROTASA	<i>Raktavha</i> , <i>Mamsavaha</i> , <i>Medovaha</i> , <i>Asthivaha</i> , <i>Naadi Sansthana</i>
SRORTODUSHTI	<i>Sanga</i>
ROGAMARGA	<i>Madhyama</i>
AGNIMANDAYA	<i>Jathragnimandyajanita</i> , <i>Dhatavagnimandyajanita</i>
UDHBHAVASTHANA	<i>Pakvashaya</i>
ADHISHTHANA	<i>Kati</i> and <i>Prushthavamsha</i>
VYAKTASTHANA	<i>Sphik</i> , <i>Kati</i> , <i>Prushtha</i> , <i>Uru</i> , <i>Janu</i> , <i>Jangha</i> , and <i>Pada</i>

In *Grudhrasi*, the *Sthanasamshraya* affects the *Kandara* of leg, which are the *Ashraya Sthana* of *Apna Vayu*, in *Sphika*, *Kati* and *Prishta*. Here are the two main causes of *Vata* gets vitiation. They are *Margavarodha* and *Dhatukshaya*⁷. The *Samprapti Vishesh* causes the same *Nidanas* to produce various *Vata Vyadhis*. This is due to the fact that the disease's presentation varies depending on the *Sthana* where *Dosha-Dushya Sammurchhana* takes place. *Khavaigunya* is crucial to the development of the disease. *Sthanavaigunya* at *Kati*, *Sphika*, *Prishta* etc. are produced in *Grudhrasi* as a result of poor posture, riding in jerky vehicles, carrying heavy loads, etc. or occasionally spinal cord injury.

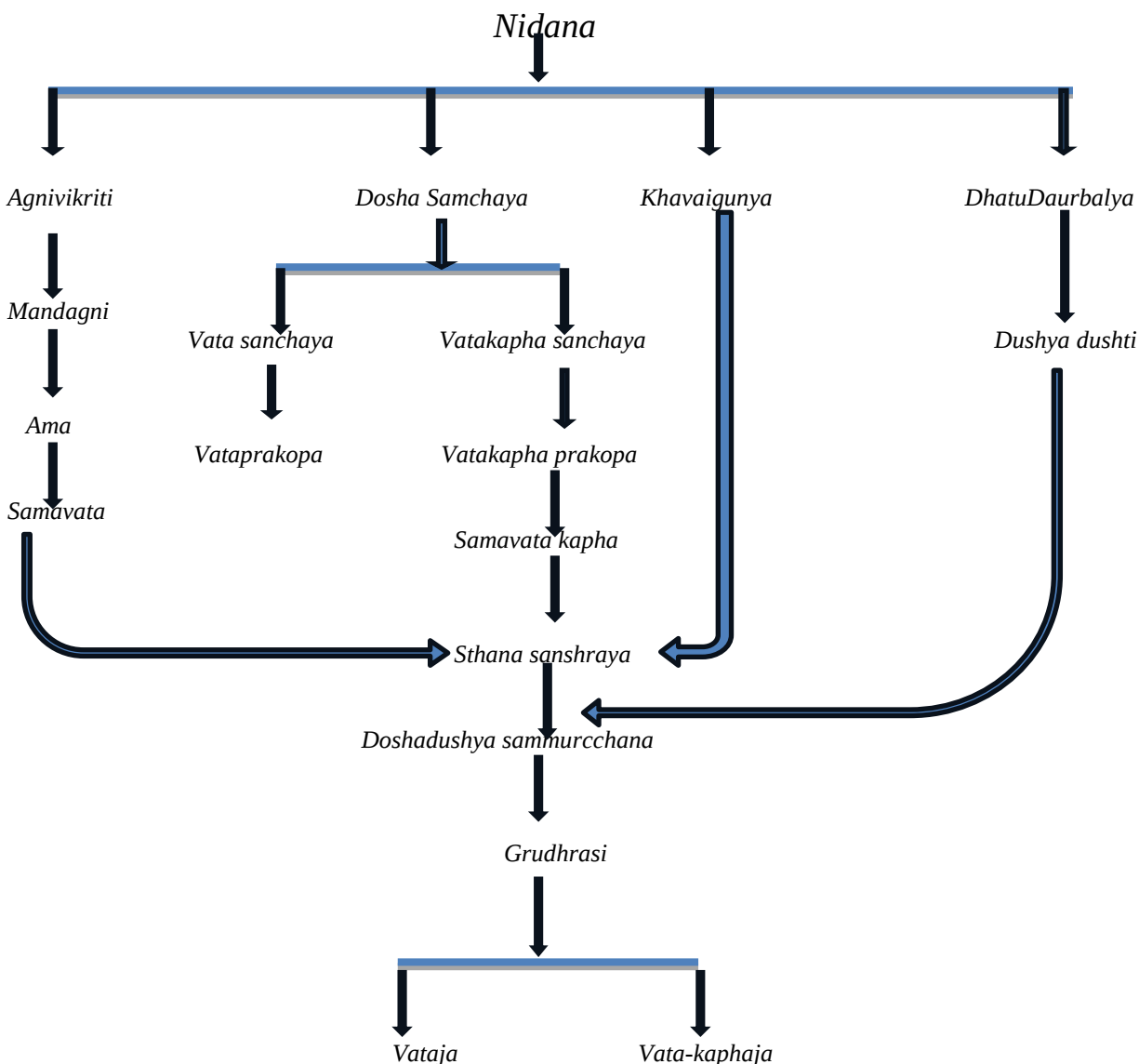


figure 1: samanya samprapti of grudhrasi

SADHYASADHYATA

In the disease *grudhrasi*, the vitiation of *vata* occurs in the *sphik*, *katiprishtha* regions involving the *sandhi* and *sandhibandhana* in this area will ultimately give rise to the vitiation of the *grudhrasi nadi*. So, *grudhrasi* by nature is *kashtasadhya*. *Acharya Sushruta* has counted *vatavyadhi* as *Mahavyadhi* which is cured with difficulty.

CHIKITSA OF GRUDHRASI

Grudhrasi is being a *Vata vyadhi*, general treatment is advised for that of *Vata*.

In Ayurvedic texts, various types of treatment are described for *Grudhrasi*.

1. *Nidana Parivarjana* (Avoid the causative factors)
2. *Snehana* (Oleation therapy)
3. *Swedana* (Sweating therapy)
4. *Virechana* (Purgation therapy)
5. *Basti Karma* (Medicated enema therapy)
6. *Raktamokshana* (Bloodletting)
7. *AgniKarma* (Thermal cautery)
8. *Shamana* (Palliative therapy)

1. Nidana Parivarjana (Avoid the causative factors)

The first and foremost principle to be adopted in treatment is to avoid the *nidanas* that cause *Grudhrasi*. The Ayurvedic therapeutic approach in *Grudhrasi*, as it is a *Vatavyadhi* is avoidance of all *Vataprakopahetus* including *Vataprakopak ahara* and *Vihar*. *Nidana parivarjana* stops the further progression of disease, by restricting vitiation of *Doshas*.

2. Snehana (Oleation therapy):

Sneha is used externally in *Abhyanga*, *Pariseka*, *Avagaha* etc. *Taila* alleviates *Vata* and at the same time does not increase *Kapha* as it is *ushna*. By its *Apya*, *Snidha*, *Guru*, *Picchila guna* it brings the *Doshas* to *Kostha* and then further it drives out by *shodhana*. It destroys the *malasanghata*, does *kosthasudhi* *Agnidipti* and improved vigour and complexion. Thus it can be useful in *Asthimajjagata Vatavyadhies* also. *Abhyanga* increases body capacity to bear trauma and hard work, which is the maximum occurring cause in *Grudhrasi*. *Abhyanga* keeps away the aging process. Hence it can slowdown the degenerative process occurring in different *Dhatus* (Especially in the spine the sciatic nerve and the muscles of lower extremities in *Grudhrasi*).

3. Swedana (Sweating therapy):

Shula (pain) and *Stambha* (stiffness) in the lower extremities are the cardinal symptoms of *Grudhrasi* and is best treated by the *Sweden Chikitsa*. *Swedana* (sudation) is *Sthambhaghna* (removes stiffness), *Sandhicheshtakar* (increases joint mobility), *Srotoshuddhikar* (clearing the micro channels), and *Kapha-vata nirodhana* (removing excess *vata* and *kapha dosha*)¹⁵

4. Virechana (Purgation therapy):

In *Vata Vyadhi*, *Charaka Samhita* has mentioned *Mridu Virechana*¹⁶. Oral administration of *Eranda Sneha* (castor oil) along with milk is ideal for the *Virechana purpose*¹⁷. As far as etiopathology of *Grudhrasi* is concerned '*Vata Vaigunya*' is important. It essentially plays a role in the 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.

5. Bastikarma

Basti Chikitsa as "*Ardha Chikitsa*" of *Vata*¹⁸. Since *pakwashyaa* is the primary location of *vata dosha*, *basti* plays an important role in pacifying *vata dosha*. *Vasti* has systemic action as the active principles (*Virya*) of *Vasti* preparation are absorbed through *Pakwashaya* (intestine) and spread to various channels of the body. It reaches at the site of lesion and induces systemic effects and relieves the disease¹⁹. *Vasti* helps to remove *Kapha Avarana* over *Vata* due to protrusion as well as it acts on *Vata dosha*, that is, *Pakwashaya*, which is the prime site of *Vata dosha*. It relieves constipation as well as helps to relieve edema, inflammation, necrosis due to its *Srotoshodhana* effect by *Vata kaphahara* properties of *Kwatha* drugs.

6. Agni Karma as Specific treatment of Gridhrasi

In *Charaka Samhita Bastikarma* (*Niruha* and *Anuvasana basti*), *Siravedha* and *Agnikarma* (between *kandarsa* and *Gulpha*) has been advised²⁰. *Sushruta* has advised *Siravedha* at *Janu* after flexion²¹.

7. Raktamokshana

It is a general rule that when the regular treatment with *Shadvidhopakrama* fails to give any relief in any disease, one should consider the involvement of *Rakta Dhatu* in the pathogenesis and is best treated by *Raktamokshana*. For *Grudhrasi* *Charaka* explained *Siravyadha* at the site of *Antara-Kandara-Gulpha* and *Acharya Sushruta* and *Vagbhatta* indicated *Siravyadha* four *Angula* above or four *Angula* below at the site of knee joint.

8. Shamana (Palliative therapy):

After completing the *Shodhana Karma*, *Shamana Chikitsa* is indicated to subside the residual *Dosha*. If *DoshaKopa* is less, then *Shamana Chikitsa* is enough and if the patient is very weak, then only *Shamana Chikitsa* can be used even in *Prabhuta Dosha* condition.

Churna: *Ajamodaadi Churna*, *Abhayaadi Churna*, *Krishnadi Churna*, *Rasnaadi Churna*.

Kalka and Lepa: *Maha Nimba Kalka*, *Rasona Kalka*, *Swalpa Rasona*, *Vaatahara Pradeh*

Kashaaya and Arishta: *Panchamoola Kashaaya*, *Maha Rasnaadi Kashaaya*, *Erandamoola Kashaaya*, *Dashamoola Kashaaya*, *Balarishtha*, *Dashamoolarishta*.

Ghrita and Taila: *Chagaalyadhya Ghrita*, *Bala Taila*, *Eranda Taila*, *Vajigandhadi Taila*, *Saindhavaadya Taila*, *Maashaadi Taila*, *Vishagarbha Taila*, *Prasaarani Taila*, *Mahaabalaadi Taila*, *Naraayana Taila*, *VishnuTaila* and *Ghrita*, *Vijaya BhairavaTaila*, *Rasnapooteeka Taila*, *Saptaprastamsa Taila*, *Datturaadi Taila*.

Guggulu and Rasayogas: Rasna Guggulu, Trayodasanga Guggulu, Yogaraaja Guggulu, Mahayogaraaja Guggulu, Pathyaadi Guggulu, Vataari Rasa, VatagajankusaRasa, Vatarakshasa Rasa.

table 4 : pathya apathya

PATHYA AHARA	PATHYA VIHARA
Kulathi, Masha, Godhuma, Raktashali, Navina Tila, Purana Shalyodana. Amla, Dadima, Draksha, Jambira, Badara. Patola, Shigru, Kshira, Ghrita, Navneetaila Taila, Sasharpa Taila, Eranda Taila	Sukhoshna Pariseka, Nirvata Sthana, Avagahana, Abhyanga, Brahmacharya, Ushna Pravarana, Agni Aatapa Sevana, Snigdha- Ushna Lepa, yoga, pranayama, vyayama
APATHYA AHARA	APATHYA VIHARA
Kalaya, Chanaka, Kanguni, Kodrava, Shyamaka, Nivara, Nishpava Beeja, Rajamasha, Karira, Jambu, Trinaka, Tinduka, Shushka Mamsa, Dushita Jala.	Vegadharana, Vyavaya, Vyayama, Vamana, Raktamokshana, Prajagarana, Diwaswapna, Adhva, Ati-Gaja-Ashwa-Ushtra-Yana Sevana

DISCUSSION

Grudhrasi is a *rujapradhana vata Vyadhi*. Due to intake of *vata Pradhan ahara vihara vata* is vitiated in *Grudhrasi* and patient experiences pain primarily in the *sphik pradesha* which later radiates to *kati* and to leg through the posterior aspect of *uru, janu, jangha* and *pada*. When *kapha* is *anubandhi dosha*, *Arochaka* (aversion to food), *Tandra* (feeling of drowsiness), and *Gaurava* (feeling of heaviness) are found additionally. As mentioned before, *Grudhrasi* may be compared with sciatica in modern terms, which occurs because of disturbance to the sciatic nerve and characteristic low back pain radiating on the posterior aspect of the thigh, to one or both of the lower limbs. Due to various *vataprakopaka nidana sevan*, *Agnimandayata* occurs which leads to formation of *Ama*, which causes *margavarodha* of *srotasa* and further leads to obstruction of *Vatagati*. Sequential administration of *Snehan*, *Swedan*, *Vaman*, *Virechana*, *Basti*, *Siravedha* and *Agnikarma* are line of treatment of *Grudhrasi* described in Ayurvedic literature. Hence *Shodhan* along with *Shaman Chikitsa* helps to treat the patient as mentioned by *Acharyas*.

CONCLUSION

Grudhrasi is more common in present era due to changing lifestyle and it hampers patients daily routine due to severity of pain. It is a *vata* predominant disease, but other *doshas* can also be involved. After reviewing ayurvedic classics, it can be concluded that separate *nidanas* are not mentioned in classics, but being a *vatavyadhi*, all the *nidana* causing *vatavyadhis* will be applicable for *Grudhrasi*. *Acharyas* have mentioned various treatment modalities for management of *Grudhrasi*. This review enlightens information on pathology and management of *Grudhrasi* that should be considered.

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