2 AYURVEDA PERSPECTIVE OF SCIATICA (GRIDHRASI)

2.1 Introduction

Modernization and sedentary lifestyle of human being in developing countries has created several disharmonies in his biological system. Factors like improper sitting postures in offices, jerky movements in travel & sports lead to the low back pain & sciatica due to pressure on spine. Low back pain (LBP) is the most frequently reported musculoskeletal problem in elderly adults. Low back pain due to lumbar disc prolapse is the major cause of morbidity throughout the world. The lifetime incidence of low back pain 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 symptoms reported in the literature varies considerably, ranging from 1.6% in the general population to 43% in a selected working population. So this disease is a significant threat to the working population. This disease not only inflicts pain, but also causes difficulty in walking. It disturbs the daily routine and overall life of the patients because of continuous and stretching type of pain.

The signs and symptoms are seen in 'grdhrasi' can be correlated with 'sciatica' in modern terminology. Sciatica is a very painful condition in which pain begins in lumber region and radiates along the posterior lateral aspects of the thigh and leg, in this condition patient walks with difficulty. It occurs because of spinal nerve irritation and characterized by pain in distribution of the sciatic nerve. In reference to sciatica treatment; medical sciences have only symptomatic management and surgical procedures with interest of adverse reaction.

2.2 Etymology

In āyurveda, diseases are named by different ways, e.g. according to dosha-dushya involvement, according to symptoms etc. Here the word *grdhrasi* is suggestive of the typical character of pain and also the gait of the patient.

'Gridhu' is the dhātu which makes the word 'gridhra' from which the word 'grdhrasi' is derived. The gridhu dhātu means to desire, to covet, strive after greedily. 'Karan pratyaya' is added to this & then by the lope of K & N the word 'gridhra' is derived. Further, the derivation of the word 'grdhrasi' from 'gridhra' is as follows: by the rule 'atonupasarge kah', kah Pratyaya is added to gridhra + sho. Hence forming gridhrat + Sho + ka.By lopa of 'O' and 'K', 'Sh' is replaced by rule 'dhatvadehshahsah'& in female gender 'angish pratyaya' is added to form the word 'grdhrasi'. Gridhra means vulture. Vulture is fond of meat & has a particular fashion of eating meat. It pierces its beak deeply in the flesh & then draws it forcefully, causing severe pain. The pain in 'grdhrasi' is also of the same kind hence the name has been given.

Secondly, 'gridhra' also means the man who is greedily striving after meat like that of vulture. Such a person is more prone to this disease 'grdhrasi', hence named so.

Also, because of the persisting severe pain the patient has a typical gait i.e. slightly titled towards the affected side & affected leg in flexed position & other leg are extended. This gait resembles that of vulture. So the disease is named as 'grdhrasi'.

2.3 Niruktti (Definition)

Further, 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, 'grdhrasi' term might have been given to this disease. 'Gridhra' is a bird called as vulture in English. This bird is fond of meat and he eats flesh of an animal in such a fashion that

he deeply pierce his beak in the flesh then draws it out forcefully, such type of pain occurs in 'grdhrasi'.

' gridhramapisyati şyati-as-kśepana|'

'ūrusandhau vātarogaḥ|'

'ġridhrāmiva syāti ġachati|'

The disease 'grdhrasi' is said to cause an abnormal throwing action in the affected leg. The Sanskrit word syaati in 'grdhrasi' means throwing action. By this abnormality the gait of the patient is said to resemble the gait of bird vulture and hence the name for this unique illness.

Definition

स्फिक्पूर्वाकटिउरुजान्जंघापादक्रमात्।

गृधसिस्तम्भरुक्तोदोगृहनतिस्पन्द्तेम्ह्।

वातद्वातकफात्तन्द्रागौरवरोचकान्विता॥ (च. चि२८/५६)

sphik pūrvākaţi urujānu jamghāpādakramāt

grdhrasi stambharuktodogruhnatispandtemuhu

vātadvātakaphāt tandrāgauravarocakānvitā|

According to ācārya caraka 'ġridhrasi' is one among the 'ġridhrasi ṇanatmaja vyādhi of vāta' which is described in 'sutrasthāna ṁaharoga ādhyaya' which is characterized stambha, ruk, toda and spandana. These symptoms initially affect sphik (buttock) as well as posterior aspect of kaṭi (waist) and then gradually radiates to posterior aspects of uru (thigh), jānu (knee), janghā (calf) and pāda (foot).

 $Ac\bar{a}rya\ su\'sruta$ told that two $kan\dot{q}ar\bar{a}$ i.e. ligament of heel and all the toes are affected by vitiated $v\bar{a}ta$ so movement of the lower limb get restricted. This disease is known

as'grdhrasi'. According to Harita, grdhrasi is originates due to vitiated vāta doṣa especially vyāna vāyū among 5 types vāta which is responsible for ġati (movement), prasāraṇa (extension), ākuncana (flexion), utkṣepaṇa (lifting). (Su.Ni.1/74; A.S.Ni.16/56; A.H.Ni.15/54).

Harita explains that, grdhrasi is a condition originates due to vitiation of vyāna vāyū which is responsible for all the types of voluntary movements, i.e. expansion, contraction, upward, downward, and oblique.

The word *grdhrasi* was the only one name used to indicate this condition in almost all the treatises and subsequent *sangraha grantha* and occasionally with a suffix *vāta* make it *grdhrasivāta*. The other terms mentioned above are used only by commentators

2.4 *Nidana* (Causative and risk factors)

The word ' $Nid\bar{a}na$ ' is derived from the Sanskrit Dhaatu 'ni' which carries the meaning to determine (Ni – $ni\acute{s}caya$ diyate $j\tilde{n}\bar{a}nam$). This word either refers to etiopathogenesis of the disease in general or the etiology of the disease in particular. In the consideration of treatment, $nid\bar{a}na$ is most important as the avoidance of etiological factor forms the first and foremost line of treatment in $\bar{a}yurveda$. This is followed by the specific treatment as per the etiopathogenesis of the disease.

The causative factors explained in the classics may be divided into many groups, but this can be grouped into two types viz.

- 1) Sāmānya nidāna
- 2) Viśesa nidāna

In some disease, $s\bar{a}m\bar{a}nya$ $nid\bar{a}na$ of concerned dosa or group of diseases has been explained and in some disease visesa $nid\bar{a}na$ for that particular disease has been listed. The $nid\bar{a}na$ factors of $v\bar{a}tavy\bar{a}dhi$ in general are also the $nid\bar{a}na$ of the grdhrasi, as the exclusive $nid\bar{a}na$ of grdhrasi is not explained in detail. Though the etiologies of all the $v\bar{a}tavy\bar{a}dhi$ are similar, the $sampr\bar{a}pti$ and clinical presentation is unique for each $v\bar{a}tavy\bar{a}dhi$, distinguishing them from one another. (A.H.Ni.1/10). In regard to causative factors of $v\bar{a}tavy\bar{a}dhi$, only caraka (Ch. Chi. 28/15-17) and $bh\bar{a}vaprak\bar{a}sa$ (B.P.U. 24/1-2) has explained it in detail, while in $susrutasamhit\bar{a}$, $ast\bar{a}mga$ samgraha and $ast\bar{a}mga$ hradaya etc. the causes of $v\bar{a}tavy\bar{a}dhi$ have not been clearly described. However, in these texts, the causative factors provoking $v\bar{a}ta$ dosa are described.

All the etiological factors given either of *vātavyādhi* or *vātaprakopaka* in the *āyurvedika* classics can be classified into four groups *āharataḥ*, *vihārataḥ*, *āgantuka*, *anyahetu*.

Aāhāratah: (Ch. Chi. 28/15-18; As. Ni.1/13; A.H. Ni. 1/14-15; Su.Su. 21/19-20)

Rukṣa, śīta, laghu, khara, etc. are the inherent properties of vāta doṣa. Āhāradravyās having these properties when ingested excessively cause vātaprakopa by the principle of 'sāmānyam vṛdhdikāraṇam'.

Rukṣa guṇa is opposite to snigdha guṇa. By its śoṣaṇa property is dries out the sneha in the body. In gṛdhrasi, it is manifested by the stiffness produced in the kaṇḍarā of the leg as Rukṣa guṇa is kāṭhinyakāraka. Rukṣa guṇa affects the asthigata sneha i.e. majjā dhātu in gṛdhrasi. stambhana is the karma of sīta guṇa. Excessive sīta āhara causes stambhana in srotasa, snāyu, kandara etc. This is manifested by the restricted movements, stiffness in the lower extremities in gṛdhrasi.

Table 2.4-1 Causes of Grdhrasi ($\bar{A}h\bar{a}rataha$)

Causes (Āhārataha)	Caraka	Susruta	Ah.Hr.	Ah.Sa.	BP
āḍhaki(Cajanus cajan)	-	+	-	-	-
bisa (Nelumba nucifera)	-	+	+	-	-
canaka (Cicer arietinum)	-	-	+	-	-
harenu(Pisum sativum)	-	+	-	-	-
jamva(Egenia jam bolana)	-	-	+	-	-
kalaya(Lathyrus Sativas)	-	+	+	-	-
kalimgu(Hantidysentrica)	-	-	+	-	-
koradușa (P. scrobiculatum)	-	+	-	-	-
masura (lens culinaris)	-	+	-	-	-
mudga (Phaseolus mungo)	-	+	-	-	-
niṣpāva (Dolichos lablab)	-	+	-	-	-
śyāmāka (Setari italica)	-	+	-	-	-
tinduka (Diospyros tomentosa)	-	-	+	-	-
tumbā (Langenaria vulgaris)	-	-	+	-	-
varaka (Carthamus tinctorius)	-	+	-	-	-
śuṣkaśāka (Dry Vegetables)	-	+	-	-	-
trunadhānya (Grassy grains)	-	-	+	-	-
viruḍhaka (Germinated seeds)	-	-	+	-	-
rukṣānna (Ununctuous diet)	+	+	+	+	+
laghvanna (Light diet)	+	+	+	-	+
gurvanna (Heavy diet)	-	-	+	+	-
śītānna (Cold diet)	+	+	+	-	-
kaṣāyāanna(Astringent taste)	-	+	+	+	+
kaṭuanna (Acrid taste)	-	+	+	+	+
viṣṭambhi (Constipative diet)-	-	+	-	-	-
abhojana (Fasting)	+	+	-	-	+
alpāsana (Dieting)	+	-	+	+	-
viṣamāśana (Uneuqal food)	-	+	-	-	-
Adhyaśana	-	+	-	-	-

Table 2.4-2. Causes of *Gṛdhrasi* (*Vihārataḥ*)

Causes (Vihārataḥ)	caraka	Susruta	Ah.Hr.	Ah.Sa.	BP
aśmabhramana (Whirling stone)	-	-	+	-	-
aśmacalana (haking of stone)	-	-	+	-	-
aśmotkṣepa (Pulling down stone)	-	-	+	-	-
divāsvapna (Day sleep)	+	+	-	-	-
duḥkhāsana(Uncomfortable	+	-	-	-	-
sitting)					
bhārāhāraṇa(Head loading)	-	+	+	-	-
vegadhāraṇa (supression of	+	+	+	+	+
natural urges)					
viṣamopacāra(Abnormal	+	-	-	-	-
gestures)					
atigamana(Excessive walking)	+	-	+	-	-
atihāsya(Loud laughing)	-	+	+	+	-
atijṛmbhā (Loud yawing)	-	+	+	+	-
atilaṁghana	+	+	+	-	-
ati palvana	+	+	-	-	-
atiprabhāsana (Continuous	+	+	-	-	-
talking)					
atipradhavana (Excessive	+	+	-	-	-
running)					
atiprajāgaraņa (Excessive	+	+	+	+	+
awaking)					
atiprataraṇa (Excessive	-	+	+	-	-
swimming)					
atiśrama (Over Exertion)	-	-	-	-	+
ativyāyāma (Violent exercise)	+	+	+	+	+
Ativyavāya	+	+	+	+	+
Atiadhyayana	-	+	+	-	-
atiuccabhāṣaṇa	-	-	+	+	-

Table 2.4-3. Causes of *Gṛdhrasi* (*Mānasika Nidāna*)

Causes (Mānasika Nidāna)	caraka	Susruta	Ah.Hr.	Ah.Sa.	BP
bhaya (Fear)	+	-	+	+	+
cintā(Worry)	+	-	+	-	-
krodha(Anger)	+	-	-	-	-
śoka(Grief)	+	-	+	+	+
Aparānha	-	+	+	+	+
grīṣma(Summer season)	-	-	+	+	-
śītakāla(Early winter)	-	+	-	-	-
varṣā(Rainy season)	-	+	+	-	-
pravāta (Windy day)	-	+	+	-	-
Āgantuka					
abhighāta(Trauma)	+	-	-	-	-
gaja uṣṭrasya avapatana	+	-	-	-	-
Anya Hetu					
āma (Undigested particle)	+	-	-	-	+
aśrukṣaya(Loss of blood)	+	+	+	-	-
dhātukṣaya	+	-	-	-	-
doşakşaya	+	-	-	-	-
rogatikarśana	+	-	-	-	

Laghu guṇa is exactly opposite to guru guṇa and does lekhana karma. Excessive laghu āhāra causes vātaprakopa. Osteoporosis is the main cause of sciatica. It can be interpreted as laghu and sukṣma guṇa of vāyu produce sauśirya of asthidhātu.

Excessive ingestion of *kaṭu*, *tikta* and *kaṣāya rasa* will provocate *vāta doṣa*. Ācārya caraka has stated that *atiyoga* of *kaṭu rasa* causes pain in limbs, *pṛṣṭha* (lumber region) etc. along with *kampa*, *toda*, *bheda* etc. which are the symptoms of *gṛdhrasi*.

Tikta rasa when used exclusively, by virtue of its rukṣa, khara, viśada guṇa affects rasa, rakta, māṁsa, meda, asthi, and majjā dhātu and produces vātavyadhis. Vāgbhaṭṭa has stated that tikta rasa produces vātavyadhis by dhātukṣaya.

Kaṣāya rasa also has khara and vishadaguṇa and produces stambhana and vātavyadhis when consumed excessively. Stambha, sphurana and tingling etc. are produced by kaṣāya rasa atiyoga.

Shyamak, nivar, kodrava etc. are rukṣa, kaṣāya and vishtambhi and hence provocate vāta. All the vātaprakopaāhāradravyas also produce asthivaha srotodushti. If the food is not taken in adequate quantity, the agni digests doṣas, then dhātus and ultimately may lead to death.

Anaśana or alpāśana causes loss of bala, varna, upachaya, oja etc. It causes harm to sharir, mana, buddhi, indriya and affects the sara of all dhātus. This may produce eighty types of vātavyadhis. Also food taken in excessive quantity leads to the prakopa of all three doṣas. These doṣas reside in the kukṣī and produce various vyadhis. Amongst them, vāta produces śula, aṅngamarda, parshwa-pṛṣṭha-kaṭigraha, sirā āṅnkucana and stambha etc. Anaśana also lead to annavaha srotodushti and agnidushti leading to āmaproduction.

Vihārataha:

Due to excessive indulgence in sex, there is kṣaya of the *shukra dhātu*. When it is continued it causes *vātaprakopa* which in turn leads to emaciation of all *dhātus* in retrograde manner. Also ejaculation of *shukra* is the function of *apanavāta*. *Ativyavaya* causes *Apanavāta prakopa* which is the main culprit in *grdhrasi*. While explaining the doṣas of *ativyavaya Ācārya caraka* has mentioned pain in thighs, knee, calf and feet which are also symptoms of *grdhrasi*.

Excessive walking, swimming, exercise etc. may produce *rukṣatā*in the body by which *shosha*

occurs. According to $\bar{A}c\bar{a}rya\ caraka$, pain at $p\bar{a}da$, jangha, uru, janu, vanmkṣana, śroṇi, pricking sensation in legs, lassitude in thighs are the symptoms caused by aticamkramaṇa. These symptoms are also found in grdhrasi, hence proving that it is the main cause of gridharasi.

Riding on or falling off from fast moving objects causes repeated jerks or trauma to the lower part of the body, specifically lumbosacral region. *Marmaghata* may occur by these activities. This produces *vātaprakopa* which leads to neurotic pain. The symptoms caused by traveling on animals are pain in *sphik*, *pṛṣṭha*, *kaṭi*, *vankshana* etc. which are akin to the symptoms of *gṛdhrasi*. Also by excessive walking, riding on vehicles *khavaigunya* is produced in the lower part of the body where *sthanasamshraya* takes place leading to *gṛdhrasi*.

Regular use of uncomfortable beds and seats provocates *vāta*; it produces symptoms similar to those as produced by excessive riding. *Atyāsana* produces obstruction to anuloma gati of apanavāyu and also kapha, pittavriddhi. It affects meda, mamsadhātus. So atyasana produces grdhrasi mainly by mārgāvarodha.

Suppression of natural urges vitiates $v\bar{a}ta$ as these are produced by normal $v\bar{a}ta$. So far as grdhrasi is considered, among all the vegavarodha, malavarodha is the most important factor to cause $apanav\bar{a}taprakopa$. This causes pain in sacral region, twitching pain in calf region, backache and may produce many diseases in the lower limb. Vāgbhaṭṭa has stated that adhovātarodha causes many $v\bar{a}tavyadhis.Vegavarodha$ of $Adhov\bar{a}ta$ may affect Samana and $VyanaV\bar{a}yu$ along with $ApanaV\bar{a}ta$.

Nidrā is one of the tripods of life. Importance of timely sleep is praised by all Ācāryas sukha, dukkha, strength and weakness, bala and abala and even life depends on timely sleep. Atijagarana produces rukṣata and vātaprakopa. Also diwaswapa produces srotorodha and kaphaprakopa both of these may lead to gṛdhrasi.

Wrestling, lifting heavy weights etc. are included under *sāhasakarma*. These produce *achayapurvak vātaprakopa*. *Bala* for these activities are provided by *udānavāyu*. When these are done excessively *udāna* & *vyana prakopa* occurs. *Khavaigunya* at *kaṭi*, *pṛṣṭha* etc. may be produced which ultimately can cause *gṛdhrasi*.

Mānasika:

Mana controls the functions of all *indriyas* with the help of *vāta*. Rajoguṇa is common to both *vāta* and *mana*. The emotions like *shoka*, *chinta*, *bhaya* etc. *Vāta* is vitiated. Also, these *Hetu* may lead to *āma* production which in turn may cause *vātaprakopa* by *mārgāvarodha*.

Miscellaneous:

Excessive loss of any element from the body leads to *riktatā* of the *srotasas*. This causes *vātaprakopa*. The strength of body is sustained by *malas*. Hence excessive loss of *mala* also vitiates *vāta*. Excessive emaciation due to other diseases leads to *dhātukṣaya* which in turn provocates *vāta*.

Ama is produced either by hypo functioning of agni or parasparasammūrchana of impaired vātadidoṣas. Ama (undigested food) has inherent property of producing mārgāvarodha which leads to Vātaprakopa. If Ama is produced by Agnimandya and it combines with Vāta, the Vātasamśriṣṭa āma is capable of producing many Vātavyadhis. Thus, when apānavāta is combined with āma, Grdhrasi may be produced.

Vāta gets vitiated by the *āvaraṇa* of other *doṣas*, *dhātus* etc. It produces obstruction to the normal *gati* of *Vāta*. Hence *vayu* functions hyper dynamically to produce various diseases.

Abhighāta is an important cause of vātaprakopa. It leads to acayapūrvaka i.e. instantaneous vātaprakopa. The stages of caya, prakopa etc. are escaped in this process. Abhighāta is one of the causative factors of asthivahasrotoduṣṭi. Simultaneously, rakta and sthānikamāmsaduṣṭi may occur. Specifically trauma to the lumbosacral region or buttocks leads to sciatica.

Kalatah:

Besides all these reasons, seasonal variations, i.e. *śiśira* and *varṣā ṛtu*, daily variations such as *aparāhna*, *jīrṇānnakāla*, also cause *vātaprakopa*. Symptoms of *gṛdhrasi* may be aggravated during these timings.

The above mentioned etiological factor of the *vātavyadhi* may lead to pathological conditions of '*dhātukṣaya*' or '*margavarana*' or both at a time, which in turn cause the provocation and vitiation of *vāta doṣa*. It is well known fact that the intake of food which is having excessive dry, cold, light properties may provoke the *vāta doṣa*. The dryness property (*rukṣa guṇa*) adversely affects to viscosity, softness, strength and complexion of the body elements. The coldness has a tendency of arresting and causes stiffness of the body similarly lightness (*laghu guṇa*) is leads to *dhātukṣaya* as it has *lekhana* characteristic because these properties are similar to the properties of *vāta*. Due to all these factors, *vāta* may get provoked and vitiated simultaneously. The excessive sexual indulgence (*ativyavāya*) provokes the *vāta doṣa* in the body, because the loss of semen (śukra dhātu) which is *śīta* in *vīrya* nature and the seat of *prāṇa* possess an antagonistic property to the *vāta doṣa*. This factor leads to *dhātukṣaya*, which ultimately

leads to provocation of *vāta doṣa*. The psychic factors like worry, grief, fear, anger etc. are responsible for the vitiation of *vātadoṣa*, which also has the '*rajoguṇa*'. So it may be possible that *vātavyadhi* will be produced by the above stated psychic factors on account of vitiation of *vātadoṣa*.

In general, by the activity of the etiological factors, the addition of the qualities similar to the one present in the *vātadoṣa* causes its morbidity. As per this principle, it is clear that the factors mentioned in the above list cause imbalance of *vātadoṣa*. So these factors may cause the *gṛdhrasi*, as this disease is regarded as *vātavyadhi* of *nānātmaja* type.

Āgantuja or Abhighāta

Abhighāta or trauma is observed to be the single most important causative for disc prolapse. Acute injuries, twists or sprains, unexpected or unaccustomed heavy weight bearing, effort made to lift an unduly heavy object on back in an improper posture i.e. with the legs straight and back fully flexed, short term strenuous unaccustomed activity were observed in association with their first attack of back pain and sciatica.

It is also observed that the individual who are accustomed to certain types of heavy activities can perform them without any damage to their back i.e. porters, and manual laborers can carry weight about 100 kg or more for short distances.

However, in an unaccustomed individual unexpected lifting of even light weight may result in severe back pain and sciatica.

2.5 Samprapthi (Pathogenesis)

The manner of *doṣika* vitiation and the course they follow, culminating in the development of specific clinical manifestation is known by the name *saṃprāpti* (A.H.Ni.1/8). *Jaati* and *Aagati* are its synonyms. A proper understanding of *saṃprāpti*

is vital in the planning of the treatment of any disease, since *cikitsā* as enunciated in *ayurvedic* texts is nothing but *saṃprāptivighaṭana* (A.S.Ni.2/3).

The *Samprāpti* can be categorized in two types.

- 1) Samanya (General) Samprāpti: This is a common pathogenesis among various types of a single disease.
- 2) Vishishta (Specific) Samprāpti: This is a specific pathogenesis for a particular sub type of disease.

Samanya Samprāpti

Vāyu is provoked excessively by the factors analyzed above settles in *kaṭipradesha* and *prushtavamshantharatarunasth*, it further precipitated by trauma or stress it initiates displacement of *sleshmikasleshma* and get obstructed by vitiating *gṛdhrasinadi* thereby involving *kandaras* of *pāda*, causing *sthabdhata*, *ruk*, *toda*, immobility, *spandana* in the region beginning from *sphik*, *kaṭi*, *pṛṣṭha*, *uru*, *janu*, *jangha*, *pāda* and its *angulis*. The disease is caused due to *kevalavāta* i.e. not obstructed by *kapha* i.e. either due to lumbar disc protrusion, lumbar Spondylosis; *kaṇḍarā* of *pāda*, causing *sthabdhata*, *ruk*, *toda*, immobility, *Spandana* in the region beginning from *sphik*, *kaṭi*, *pṛṣṭha*, *uru*, *janu*, *jangha*, *pāda* and its *angulis*.

The disease is caused due to *kevalavāta* i.e. not obstructed by *kapha* or obstructed by *kapha* i.e. either due to lumbar disc protrusion, lumbar spondylosis, lumbar canal stenosis etc., resulting in to inability of functions of *ceṣṭāvaha* and *sanjnavaha srotas* (*gṛdhrasinadi*) which is controlled by *vyanavāta*, usually impairing one *pāda*. The severity, distribution of impairment depends upon the impaired lesion, its site, severity, etc. this is the basic *samprapthi* of *gṛdhrasi*.

Vișeśa samprāpti

The stage wise *samprāpti* of *gṛdhrasivāta* when gets aggravated either due to exposure to factors similar to *vāta* associated with *ushna* instead of *śītaguṇa* or due to season or age increase first in its own sites. The condition is called *ceṣṭāvaha*. The individual feels aversion to the diet and drinks possessing qualities similar to that of *vāta*. *Sthabdha*, *purnakoṣṭhatā* or a sense of dullness or fullness in the abdomen and *kaṭisthana* also occurs.

Specific Samprāpti of Vātaja Gṛdhrasi:

According to $\bar{A}c\bar{a}rya$ caraka, the $v\bar{a}tajagrdhrasi$ is separately produced by $v\bar{a}taprakopaka$ or $v\bar{a}tavriddhi$ having symptom of stambha, ruka, toda and muhuspandanam.

ĀhāraVihara gives rise to aggravation of vāta and at the same time rukṣa, khara, laghu, śīta, dāruṇa, viśāda, chala guṇa of vāta suppresses the snigdha, guru, mridu, picchila and sāndraguṇa of kapha which leads to decrease of sleshma. Decreased sleshma in kaṭi- pṛṣṭha, sakthi and in kandara in turn result into aggravation of vāta. This way, vāta located in kandara and produces the symptoms viz. stambha, ruka, toda, spandana in kaṭi, pṛṣṭha, uru, janu, jangha and pāda in respective order.

Specific Samprāpti of Vāta-Kaphaja Gṛdhrasi:

During the description of *vāta-kaphaja gṛdhrasi*, Ācārya caraka explained symptoms i.e. *aruchi*, *tandra* and *gaurava* in addition to the *vātaja* symptoms. Along with *vāta prakopaka nidāna*, *kapha prakopaka nidāna* gives rise to *agnimāndya*, which leads to accumulation of *āma*. This condition also affects the *agni* of *rasadhātu*, resulting in the production of *kapha* abundantly as it is *mala* of *rasadhātu*. In this *saṃprāpti*, *prakupita Vāta* does not suppress the *kapha* as explained in *vātaja* type of *gṛdhrasi*. Here *prakupita vāta*also leads to *agnimāndya* and ultimately helps in accumulation of *kapha*.

On the other hand avaigunya occurs due to nidānasevana in kaṭi, pristha, sakthi and kandara. Thus, both vitiated vāta and kapha by spreading get localized at the place of kha-vaigunya. In the condition of sthāna-sanshraya that vitiated vāta gets masked (cloaked) by kapha and produces symptoms of vāta-kaphajagṛdhrasi.

The description of *samprāpti* of *gṛdhrasi* is restricted to the naming of the *doṣa* and *dūṣya* involved in the causation of this illness. *Gṛdhrasi* is enumerated under the *nanatmaja* type of *vātavyadhi*. Also, considering the *anubandha* of *kaphadoṣa* in the *vātakaphaja* type of *gṛdhrasi* is described. Thus the clinical manifestation of this disease is produced due to the morbid *vāta doṣa* or the combination of *vāta* and *kapha doṣa*. On the basis of symptoms given in classics, the probable *samprāpti-ghataka* of *gṛdhrasi* can be traced out as shown in figure 1.

Doşa - Vāta - Especially Vyana and Kapha

Dūṣya - Rasa, Rakta, Māṁsa, Meda, Asthi, Majja, Sira, Kandara, Snāyu

Srotasa- Rasavaha, Raktavaha, Māmsavaha, Medovaha, Asthivaha, Majjavaha

Srotodushti Prakara - Samga, Mārgāvarodha

Agni - Jāṭharāgni and Dhātvagni

Ama - Jāṭharāgnijanya and Dhātvagnijanya

Udbhavasthana - Pakvāśaya

Adhisthana - Kandaras of Parsani and Pratyanguli and Sphik, Kaṭi, Uru, Janu, Jangham, Pāda

Vyakta Rupa - Ruka, Toda, Stambha in Adhosakthi, Uru, Janu, Jangha and Pāda, Arochaka, Tandra, Gaurava

SCHEMATIC REPRESENTATION OF PROBABLE SAMPRAPTI OF GRIDHRASI

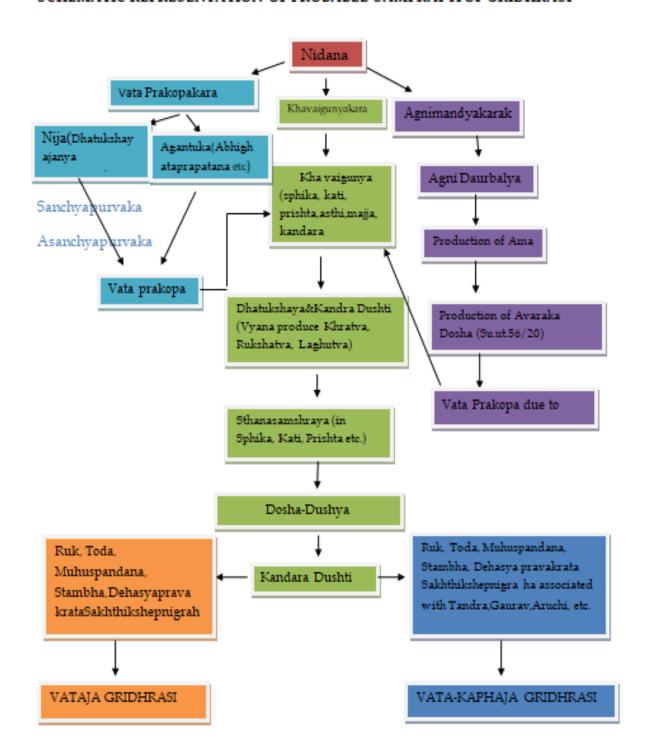


Figure 1. Schematic representation of probable samprāpti of gṛdhrasi

Here an attempt has been made to explain the *samprāpti* on the basis of available reference. The *samprāpti* has been divided into six stages, can be explained as follows:

Chaya Stage

Nidānas leads to accumulation of aatmarupa of vāyu i.e rukṣa, śīta, chalaguṇa (along with kapha by its guru and śīta property) in its own place, produces the symptoms of chaya. This is the first stage of samprāpti.

Prakopa Stage

When no therapies have been adopted to sub due 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 *Suśruta*, *prakopavastha* is the 2nd stage of evolutionary process of manifestation of disease and there is four more stage of evolutionary processes. Whereas according to *Vāgbhaṭṭa* and *Ācārya caraka* there are only two stage of evolutionary processes of disease i.e. 1. *Chaya* and 2. *Prakopa*. According to them all the five stages of *kriyākālas* mentioned by *Suśruta* except *chaya* will come under the *prakopa* stage. In the present context *Suśruta*'s view will be adopted along with the others, wherever possible. In the stage of the *prakopa* the quantity of *vāta* if increased further will be in the maximum quantity at its own sites and is ready to expel. It will cause *koṣṭhatoda* (sensation of pinning pain), *koṣṭhasaṃcāraṇa* (movement of vayu in abdomen) and or *kati*.

Prasaravastha

When no therapeutic measures have been adopted at the stage of prakopa the $v\bar{a}ta$ being expelled from its own sites spread over and extends to other parts, organs and structure of the body. While spreading, $v\bar{a}ta$ which possesses the power of locomotion will take lead in spreading other dosas also in general. In the present context also $v\bar{a}ta$ may

spread itself throughout the body or spread along with *kapha*. The process is generally up to *prasarāvasthā* for all disorder in general. When the *vāta* has not been treated at *cayāvasthā* 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 *cayapūrvakaprakopa*.

This process will lead to *gṛdhrasi* of gradual onset. At times when *vāta* 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 *gṛdhrasi* which is termed as *acayapūrvakaprakopa* or sudden onset. The *doṣa dhātu* vitiation inside the body which makes the proper atmosphere for the manifestation of *gṛdhrasi* would have been getting evolved in a very long time before its sudden manifestation. In this stage, the *prasaravastha vimārgagamana* (spreading to other parts) and *atopa* (painful distension of abdomen, intervertebral disc prolapses) accompanied by rubbing noise or enlargement of particular part are the clinical manifestation by *vāta*.

Sthanasamshraya

If no treatment is adopted even at the stage of *prasara* the *doṣa* while moving throughout 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 into 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 *purvarupavastha*. No specific *poorvarupas* have been described for *vātavyadhis* and *gṛdhrasi* in particular by acharyas but have stated that the same clinical features will be manifested in an unclear

(avyaktha) form in this stage of purvarupa. In gṛdhrasi, backache or lumbago are observed to occur in this stage.

Udbhavasthana

Kaṭipradesha had been mentioned as one of the important sites for vāta. Pakwashaya is also seated nearer to kaṭi which is the main seat of vāta. The gṛdhrasinadi is the adhiṣṭhāna of the disease gṛdhrasi leaves greater sciatic notch which is situated in kaṭishtana. Kaṭichakra (pelvis) supports basti, rectum and pakwashaya and reproductive organs. Nitambapradeśa bears the weight of the body in sitting posture. The kaṭipradeśa bears the weight and other stresses. Kaṭi is connected with the saṃprāpti of gṛdhrasi in many places as follows:

The *adhiṣṭhāna* of *gṛdhrasi* i.e. *gṛdhrasinadi* originates from *kaṭisthana*. The lesion i.e. intervertebral disc is situated in this region. The description of the disc etc. is given along with the description of the spine.

Sanchara

Vāta is said to be situated in *asthis* and particularly in *majja* according to *āyurveda*. The spinal cord being between *asthis* is considered as the prominent *vātasthana*. The functions of *vāta* i.e. *gati* (movement) *gandhana* (sensation) are facilitated by *susumnānadi* which is situated inside the *pṛṣṭhavamsha*.

The pathological changes in the disc constitute three factors i.e. thinning of fibrous layer of the annulus, destruction of fibrocartilage, and dehydration of nucleus pulposes. The changes results in the impairment of elasticity, size and mobility of the disc. Thus the intervertebral space is diminished and osteophyte is formed at the margins. These may be asymptomatic or may cause slight stiffness. Occasional pain can be termed as early *purvarupas*.

The weakness of the annulus leads to fissure followed by tears which resulted in to prolapse of the sequestered pieces of nucleus. The protrusions usually occur posteriorly as the annulus is weakest in this side. Prolapses occurring in other direction are usually symptomless.

The effect of lumbar disc herniation of nucleus purposes of *śleśmakaśleśma* depends upon many factors like etiology, location, level, size, direction of herniation, rate of progress, severity and the state of surrounding structures. Persons with narrow lumbar are more vulnerable to compression. The highest incidence of herniation is in the lumbar region i.e. 95% occur in the last two intervertebral discs. Most of the remaining occurs in 3rd lumbar disc. The spinal cord gives rise to 31 pairs of nerve roots among which 5 each from the lumbar and sacral, one from coccygeal, each consisting of a dorsal (motor) and ventral sensory root and unite when they reach the concerned intervertebral foramen to form a mixed spinal nerve. The roots are surrounded by a dural root sheath from the main dural tube to the foramen. The roots are compressed within the posteriolateral disc protrusions by these root sheaths.

Adhishtana

It is the biggest nerve in the body. It is mentioned in all the *ayurvedic* treatise but while describing the disease condition *grdhrasi*, *Dalhana* considered it as *kaṇḍarā* and *mahasnāyu which* start from *gulpha* to *vitapa*. *Vruddhavāgbhaṭṭa* mentions that *grdhrasi* occurs due to *vāta* sited at *snāyu*. It appears that he also considered *grdhrasi* as *snāyu*. The sciatica nerve is derived from sacral plexus comprising of division of 4th and 5th lumbar and first, second and third sacral spinal nerve. Sciatica nerve leaves from pelvis through great sciatic of the thigh passes deep to the Gluteus maximus, lying in midway in between the great trochanter of the femur and the ischial tuberosity. It supplies semi tendinosus, semi membranous, and abductor Magnus through its peroneal

division. It separates into the tibial and common peroneal nerves in the lower thigh and supplies all the muscle below the knee.

Vyaktasthana

The impairment of *gṛdhrasinadi* leads to the manifestation of *gṛdhrasi* disease. All the *pṛatyātmalakṣaṇās i.*e. cardinal features of *gṛdhrasi* pertain to either one *pāda* or both *pādas*. Hence the site manifestation of clinical features i.e. *vyaktasthan* are *pādas* in general. In bilateral sciatica where bowel and bladder are involved the clinical features of those functions also get manifested. Hence *mūtra* and *malas* are also to be considered as *vyakthasthana*rarely in such cases.

The movement of one leg is usually impaired in *gṛdhrasi*. The movement of the leg is controlled by *gṛdhrasinadi* together, its branches and some other nadis of lumbo-sacral plexus. Each movement is controlled by two spinal segments.

2.6 Purvarupa (Prodromal symptoms)

Purvarupa (ch.chi. 28/9,M.Ni.1/5-6) are those signs and symptoms which appear earlier to manifestation of disease, not specifically assignable to the doṣas as they are mild and few in number (AH. Ni. 1/3-4). During the disease process the fourth *kriyākāla*i.e. sthānasaṁśraya is the stage where purvarupa are manifested. These prodromal symptoms are produced due to the accumulation of the doṣas which are already in prasaravastha, at the place of Khavaigunya (Madhukosh 1/6). After this, these doṣas get localized in the impaired srotasa and pathology is produced. These are important for the diagnosis, prognosis and treatment so as to prevent further complications.

The *dhātukṣayas* which can predict the following disease alone are called *sāmānya* purvarupa, where as those which can predict the forthcoming disease along with the predominant *Doṣa* concerned is called *vishesha purvarupa*. According to *madhukośa*,

purvarupa are the symptoms which are exhibited clearly because of having less severe causative factors, being mild or less in number and having madhukośa of doṣas (M. N. 1/5-6). Gṛdhrasi being a vātavyadhi, the sāmānya purvarupa of Vātavyadhi are the purvarupa of gṛdhrasi. Caraka has mentioned that avyaktalakṣaṇa are the purvarupa of vātavyadhi (Ch. Chi. 28/9). While clarifying the word 'avyakta'Cakrapāṇi states that few mild symptoms can be considered as purvarupa. (Chakra Ch. Chi. 11/12).

Thus, the symptoms of *grdhrasi* such as *ruk* ,*toda*, *spandana*, *stabdhatā*, *tandrā*, *arocaka* etc. when manifested slightly can be called as *purvarupa* of *grdhrasi*.

By the consideration of the above cited general rule of *Purvarupa* in regards to *vātavyadhi*, *gṛdhrasi* being a *vātavyadhi*, *purvarupa* of this disease may be assumed. Low back pain, mild discomfort in the lower extremities, altered sensation in the legs and similar other symptoms of *gṛdhrasi* in its minimal severity may be considered as *purvarupa*. The development of these symptoms following excessive exercise straining the back, or else direct trauma to the back are always causative factors of *gṛdhrasi*.

The *Purvarupa* also depend upon *prakṛti, dūṣya, deśa, vaya, kāla, bala ,satva ,sātmya* etc.

2.7 Rupa (Sign and Symptoms)

Vyakta purvarupa is known as *Rupa*. (A.H.Ni.1/5). Symptoms play more important role in proper diagnosis of the disease. Curability and incurability of the disease depends upon the severity of the presenting symptoms. (A.H.Ni15/54, A.S.Ni 15/56; Cha chi.28/56-57; M.Ni 22/55,56)

Rupa appears in the *vyaktavastha* i.e., fifth *kriyākāla* of the disease. This is the unique stage of the illness, where in it is clearly recognizable as all its characteristic signs and symptoms manifest.

Pain starting from *sphik* and radiating towards *kaṭi*, *uru*, *jānu*, *janghā* and *pāda*in successive order, is the cardinal symptom of *grdhrasi*.

According to Ācārya caraka, the symptoms of gṛdhrasi

- In *Vātaja* type (Cha.chi.28/56-57)
 - *Stambha* (stiffness)
 - Ruk(pain)
 - *Toda*(pricking sensation)
 - *Muhuspandanam* (tingling)

In Vāta-Kaphaja type of Gṛdhrasi

- *Tandrā*(*stupor*)
- *Gaurava* (heaviness)
- *Arocaka* (loss of taste)

According to Suśruta and Vagbhatta,

"Sakthanah Kshepam Nigriharniyata",

It means that a restricted movement of lower extremities is the symptom of *gṛdhrasi*. (Su.Ni. 1/7; A.H.Ni.15/54; A. S. Ni. 15/56)

According to *Madhavakara*, *dehapravakrata* i.e. scoliosis and trembling sensation and stiffness in *janu*, *kaṭi* and *uru sandhi* (*Janukaṭiuru sandhinam sphuranam* and *stabdhata*) are also symptoms of *vātaja* type of *gṛdhrasi* and *agnimāndya*, *mukhapraseka* and aversion for food (*bhaktadveṣa*) are the symptoms of *vāta-kaphaja* type of *gṛdhrasi*. (Ma.Ni. 22/55-56).

Considering all the clinical manifestations of *gṛdhrasi*, it may be sub divided into two distinct categories

- i. Samanya Lakṣaṇas of gṛdhrasi
- ii. Vishesha Lakşanas of grdhrasi

Table 2.7-1. Samanya Lakṣaṇas of Gṛdhrasi

Symptoms	Cha	Su	AH	AS	BP	MN	YR	SS	HS
Samanya Lakṣaṇa									
sphik purva kaṭi - pristha, uru, janu, jangha, pāda kramat Vedanā	+	-	-	-	+	+	+	-	-
Ruk	+	-	-	-	+	+	+	+	-
Toda	+	-	-	-	+	+	+	+	-
Stambha	+	-	-	-	+	+	+	+	-
saktikṣepanigraha	-	+	-	-	-	-	-	-	-
saktiutkṣepanigraha	-	-	+	+	-	-	-	-	-
jānumadhya vedanā	-	-	-	-	-	-	-	-	+
uru madhya vedanā	-	-	-	-	-	-	-	-	+
kați madhya vedanā	-	-	-	-	-	-	-	-	+

According to different Acharya's various symptoms as below

i) Samanya Lakshanas:

These clinical manifestations are seen in both *kevalavātaja* and *vātakaphaja* type of *gṛdhrasi*. Following are the *samanyalakṣaṇa* of *gṛdhrasi*.

Ruk:

"ruk satata śulam" (A.H.Su.Arun.Vya.12/49)

"ruk śulam" (A.H.Su.Hem.Vya.12/49)

"rujā vedanā" (Su.Ni. Dal.Vya. 5/13)

The word "ruk" signifies pain. Any kind of pain is always associated with vāyu. It is included under vātaprakopakalakṣaṇa by vāgbhaṭṭa. Arundatta interprets rock as

continuous pain. Symptoms of vitiated Doṣa are manifested by their Guṇa or Karma. Ruk is the Karmatah manifestation of $V\bar{a}ta$. When it is purely Vatika, it is severe and continuous but when associated with Kapha it may be less severe. Ruk is included under $majjapradoṣaja\ lakṣaṇa$ by $\bar{A}c\bar{a}rya\ caraka$ which clarifies the involvement of $majj\bar{a}$ $dh\bar{a}tu$ in the production of the symptom.

The pain in *Grdhrasi* is attributed to the specific area. It starts from *sphik* and then radiates through kaṭi, *prishtha*, *uru*, *janu*, *jangha* upto *pāda* says *cakrapāṇi* (hip to foot). The track of pain explained by *Ācārya caraka* exactly coincides the pathway of sciatic nerve. Hence *Grdhrasi* is correlated with Sciatica.

Toda:

"todaḥ sucivyadha vedanā vyathā" (C.Ch.Yog. Vya. 7/14)

"toda vicinnam sulam" (A.H.Su.Arun. Vya. 12/49)

It is a term which explains the nature of the pain. It means pricking sensation. It is caused by vitiated $v\bar{a}yu$ and is included under $v\bar{a}taprakopaja$ vyadhis by Madhavakara and $v\bar{a}gbhatta$ have also mentioned it in $v\bar{a}taprakopaja$ lakṣaṇa. It is also the karmatmaka manifestation of vitiated $v\bar{a}yu$. In grdhrasi, toda is present along the path of sciatic nerve.

Stambha:

"stambha niścalakaranam" (A.H.Su.Arun.Vya. 12/50)

"stambha bāhu uru janghādeenām sankocanādhya bhāvah" (A.H.Su.Hem.Vya.12/50)

"stambha niśkriyatvam" (A.H.Su.Hem.Vya.12/50)

Stambha means feeling of tightness and rigidity throughout the leg. Arundatta defines it as inability of the limbs to flex. While Hemadri interpretes it as loss of movement. It is

amongst the eighty nānātmajavātavyadhies. Especially the śīta and rukṣa guṇa of vātaaffects the muscles of the leg, the movements of leg are restricted. They are also restricted due to pain, especially flexion at the hip joint and extension at the knee joint. Vitiated doṣas when affect snāyu, sira and kaṇḍarā, stambha, sphurana and supti symptoms are produced. This process when takes place in lower limb, gṛḍhrasi is produced. The feeling of tightness results because of improper circulation of rakta (blood) in the affected part. Because of vitiated vyāna vāyu, the saṃvahana of Rakta is partially affected. These results in establishment of stabdhatā as the muscles of the lower limb suffer from improper nourishment. Regarding the originating site of Stambhatva, saṃvahana commented that it starts from the hip region first and gradually is established in the lumbar region, back etc. Suśruta and Vāgbhaṭṭa have not given the term stambha but they have described it by the term, "saktikṣepanigraha".

Spandana:

"spandanam sphuraṇam" (A.H.Su.12/50 Hemadri)

"spandana hi kincid calanam" (A.H.12/50 Arundatta)

It is throbbing, pulsating *chalacalanam* or trembling sensation felt in the affected leg. By the word *spandana*, *Cakrapāṇi* signifies *kampana* while *Dalhana* explains it as *Chalana* i.e. certain kind of movement. It is also due to vitiated *vāyu*particularly *vyanavāyu*. *Chala guṇa* of *vāyu* is responsible for *Spandana*.

Spandana is a kind of rapid involuntary movement in the leg, also called as muscular twitching which is experienced by the patient on and off in the leg. Bhavamishra uses the word sphuraṇamfor spandana. According to him sphuraṇamoccurs in all the joints like janu (knee), uru (tigh), jangha (calf) etc.

Sakthi Kshepam Nigraha:

"kṣepam prasāranam tama nigrahanyāt avarundhyat ityarthah" (Su.Ni.Dal.Vya. 1/74)

Suśruta has mentioned this term first. It signifies restricted movement of the affected limb. The patient is unable to extend the leg i.e. prasarana of the leg is difficult.

Dalhana explained that because of the ill effect on parshnikandara the movement of the leg is forbidden. Vāgbhaṭṭa modified the term kshepa as utkshepa which means upward movement or elevation or rising. Arundatta clearly defined this by, pāda uddharaneashakti" meaning the disability to lift the leg. If we analyze the symptoms in the light of modern medicine, it appears very similar to the restricted SLR (straight leg raising) test which is done to assess the degree of limitation of the limb (hip) flexion, when the knee is extended.

Kaţi uru jānu madhye bahuvedanā

It is a distinct feature of grdhrasi mentioned by $\bar{A}c\bar{a}rya$ Harita (H.Sa.22/1-2). This refers to the severe pain experienced at kati (low back), uru (thigh) and janu (knee) region. Static or non-radiating pain is also characteristic of grdhrasi.

ii) Vishesha Lakşanas of grdhrasi

Table 2.7-2. Vishesha Lakşanas of grdhrasi

Vishesh Lakṣaṇa	Cha	Su	AH	AS	BP	MN	YR	SS	HS
Vātaja Gṛdhrasi									
dehasyapravakratā	-	-	-	-	+	+	+	-	_
jānusandhisphuraṇa	-	-	-	-	+	+	+	-	-
<i>uru</i> sandhisphuraṇa	-	-	-	-	+	-	-	-	-
<i>kaṭi</i> sandhisphuraṇa	-	-	-	-	+	+	+	-	-

<i>jangha</i> sphuraṇa	-	-	-	-	-	+	-	-	-
suptatā	-	-	-	-	+	-	+	-	-
Vāta-Kaphaja Gṛdhrasi									
tandrā	+	-	-	-	+	+	+	+	-
gaurava	+	-	-	-	+	-	+	+	-
arocaka	+	-	-	-	+	-	+	+	-
vahnimārdava	-	-	-	-	+	+	+	-	-
mukhapraseka	-	-	-	-	+	+	+	-	-
bhaktadveṣa	-	-	-	-	+	+	+	-	-
staimitya	-	-	-	-	-	-	-	-	+

ii) Vishesha Lakshanas:

The unique symptoms of *gṛdhrasi* that indicate either *vātaja* or *vātakaphaja gṛdhrasi* are described as *vishesha lakṣaṇa*. It is evident that the predominance of *vāta doṣa* or *vātakapha doṣa* in the *saṃprāpti* of *gṛdhrasi* leads to the manifestation of *vishesha lakṣana*.

Vātaja Gṛdhrasi:

Here the *Samprāpti* of the *Gṛdhrasi* is characterized by the sole involvement of *Vāta* doṣa. Evidently there will not be association of *Kapha doṣa* in the *samprāpti*. Following are the *vishesha lakṣaṇa* of *vātajagṛdhrasi* (M.Ni.22/56).

Dehasya Pravakrata:

'vātajayam bhavet todo dehasya api pravakta' (M.Ni. 22/54)

Madhava described this symptom which means that patient of *grdhrasi* acquires a particular posture due to pain. It may be lateral and forward bending of body. The

patient of *grdhrasi* keeps the leg in flexed position and tries to walk without much extension in the affected side. Hence the whole body is tilted on the affected side and he assumes the bending posture or limping. This gait is also typical in *grdhrasi*.

Sphuranam:

"sphuraṇam gātra deśe svalpa calanam" (A.S.Su.Indu Vya.19/5)

"sphuraṇam punḥ punḥ calanam" (Su.Chi.Dal.Vya.1/7)

The symptom of fasciculation in *kaṭi*, *uru*, *janu* and *jangha* are similar to the *spandana* or *muhuspandana* is characteristic of *vātajagṛdhrasi*.

Suptatā:

The patient experiences varied degree of paraesthesia or sensory loss in the affected limb.

Vātakaphaja Grdhrasi:

Involvement of *kaphadoṣa* in the *saṃprāpti* of *gṛdhrasi* are causing the below mentioned unique features (M.Ni.22/56).

1. Tandrā:

"tandrayāntu prabodhito api klamayati nidrabheda" (Su.Su.Dal.Vya.45/3)

This occurs due to *kapha* and *Tama doṣa*, manifests as a feeling of drowsiness or inability of sense organs to grasp their respective objects followed with yawning or even fatigue without doing any labor. (Su.Su.4/35; A.H.Su.9/37)

2. Gaurava:

"ārdra carmavanaddham eva ityartha" (Su.Sa.Dal.Vya.4/55).

Patient feels heaviness particularly in the lower limb or limbs. *Gaurava* is the feeling of heaviness of the body in general or lower extremities particular. Needless to say this symptom is due to the morbid *kapha doṣa*.

3. Arochaka:

"arocakāstu prarthite apyupayogasamaye anannabhilāśa" (C.Ch.Chak. 9/20)

"aruci prarthita anna bhakṣaṇa asamarthyam uccyate" (C.Ch.Chak. 16/4).

It is a subjective symptom where patient fails to appreciate the taste in the mouth irrespective of state of appetite. In comparison to the role of *vāta doṣa*, involvement of *kaphadoṣa* has much to with the manifestation of *arochaka*, because the seat of *bodhakakapha* is *jihwa* which does *rasabodhana*.

4. Vahani Mardava:

Sluggishness of the *Jatharagni* is resulting into the impairment of both *abhyavāhārana* as well as *jaranashakti*.

5.Mukha Praseka:

Mukhapraseka means excessive salivation in mouth is due to kapha in association with $\bar{a}ma$.

6.Bhaktadvesha:

"dveṣāmayati yo jantu bhaktadveṣa sa ucyate" (M.Ni.M.K.Vya.Vri.Bhoja14/4)

Secondary to the sluggishness of *jatharagni* and *kaphadusti*, patient of develops aversion towards food. Association of $\bar{a}ma$ is also contended in the causation of this aversion towards food.

7. Staimityam:

"staimityam gātranām nirutshatvam" (A.S.Su.Indu Vya.9/39).

Inertness of the body, feeling of freezing sensation in the affected lower limb; *Staimitya* means timidness or frozen sensation. Due to *kapha* vitiation, patient feels as if his lower extremities are covered with wet cloth.

Upaśaya and Anupaśaya

Upaśaya are the medicines, diets and regimens which bring happiness either by acting directly against the cause of the disease or it may produce such effect on the disease indirectly. Upaśaya is rightly called as exploratory therapy. It is essential to know the sadhyaasadhyata of a disease before the treatment. $\bar{A}c\bar{a}rya$ caraka says, "A physician who can distinguish between curable and incurable diseases and initiate treatment in time with the full knowledge about the various aspects of the therapeutics can certainly accomplish his object of curing the disease" (Ch.Su.10/7).

When identical symptoms having two or more diseases are uniting together in such conditions, disease could be best differentiated by adopting *upaśaya*.

Upaśaya for *gṛdhrasi* has not been mentioned particularly. But, if there is uncertainty as whether the disease is *urusthambha* or *gṛdhrasi*, to differentiate these two we can adopt *upaśaya*. If symptoms aggravate on the application of oil, then we can consider it to be *urusthambha* and if the symptoms alleviate we can consider it as *gṛdhrasi*. The *nidāna* mentioned for *vātavyadhi* are considered as *anupaśaya* for *gṛdhrasi*.

Upaśaya

Aāhāra: Godhuma, masha, purashaali, vartak, patol, rasona, taila, ghrita, kshira, tila, draksha, dadima etc.

Vihara: Abhyanga, svedana, tarpana, nirvāta sthana, atapa sevana, nasya, ushnapravarana, basti etc.

Anupshaya

Aāhāra: Mudga, kalaya, brihatshaali, yava, rajmasha, kodrava, kshara, bitter, astringent taste etc.

Vihāra: chinta, bhaya, shoka, krodha, vagavidharana, chankramana, annasana, ativyavaya, jagrana

Sāpekṣa nidana(Differential diagnosis)

Diagnosis is successfully made by thoroughly observing the patient to explore the clinical manifestations and analyzing the symptoms to determine the vitiation of doṣa, involvement of dhātu, affliction of srotas, as well as other events of samprāpti. Diagnosis of grdhrasi can be made easily by typical clinical presentation of radicular pain with restricted leg raising reveals the vitiation of vāta and occasionally in association with kapha doṣa, afflicting the asthi as dhātu and snāyu and kandara as upadhātu involving the asthivahasrotas. Though grdhrasi is characterized by a distinct course of radiating pain but sometimes it may be a difficult task to differentiate the similar conditions like urusthambha, khalli, khanjatā and pamgutā. Even then the differentiation may be made easy by analyzing the course of pain, character of pain, severity, associated phenomena and functional disability in patients of grdhrasi.

Sāpekṣa nidāna of gṛdhrasi, in this context with other diseases having alike symptoms is described as below –

1) In *grdhrasi*, a distinct radiating pain which emerging from buttock and goes towards the feet along the course of sciatic nerve is found which is absent in other disease like *urustambha*, *khalli* etc.

- 2) In *grdhrasi*, *sakthikshepa* is being restricted, whereas in *urustambha* patients feel heaviness in their thigh and difficulty in walking.
- 3) *Urustambha* is associated with *jwara*, *chhardi*, *aruchi*, *agnimāndya* etc. which are not usually found in *gṛdhrasi*.
- 4) In *khalli*, the severity of pain is more than that of *gṛdhrasi* and is generally proximal in nature.
- 5) In *khanja* and *pangu*, first and foremost symptom is paralysis which may be present in sciatica only as a late complication, and no history of pain may be present in *khanja* and *pangu*.
- 6) In *gudagatavāta*, in addition to pain in foot, symptoms like *shosha*, retention of faeces, urine and flatus, colic flatulence and formation of stone may also be present (Ch. Chi. 20/25). In *gṛdhrasi*, pain in *sphik*, *kaṭi*, *uru* etc. in respective order, however, in *gudagatavāta* there is no such respective order.

2.8 Sadhya-Asadhyata (Prognosis)

It is essential to know the *sādhyāsādhyatā* of a disease before the treatment As said in Ch. Su. 10/7 "A physician which can distinguish between curable and incurable diseases and initiate the treatment with full knowledge regarding the different aspect of the therapeutics can certainly accomplish his object of curing the disease".

Suśruta consider the vātavyadhi as mahāgada due to its tendency to be fatal or incurable. He also says that if the patient of Vātavyadhi develops the complication like śūnama (edema/inflammation), Suptatvachan (tactilesenselessness), Bhagna (Fracture), Kampa (tremors), ādhmāna (distention of abdomen with tenderness) and pain in internal organs, then he doesn't survive (Su. Su. 33/7).

Vāgbhaṭṭa tells it as mahāroga. Most of the Ācāryas are of the opinion that generally vātavyadhis are very difficult to cure (Su. Su. 33/4; A. H. Ni. 8/2/30).

In classics, there is no separate prognosis is mentioned regarding the diseases *gṛdhrasi*. For the prognosis of *vātavyadhis*, *Ācārya caraka* (Ch. Chi. 28/71-72) said that if the disease is of recent origin and without any associated disease, then it is curable. According to *Ācārya caraka*, if *vātavyadhi* is connected with *sandhichyuti*, *kunjanam*, *kubjatā*, *ardita*, *pakṣāghāta*, *aṁsaśoṣa*, *paṁgutā* and those which are *majja* and *asthigata* are usually cured with difficulty or even incurable.

In disease *gṛdhrasi*, the vitiation occurs in the *sphik*, *kaṭi*, *prishtha* regions involving the *sandhi* and *sandhibandhana* in this area which will ultimately give rise to the vitiation of the *gṛdhrasinadi* which is a structure developing from the *majja*. So, *gṛdhrasi* by nature is *kaṣṭasādhya*. However, the *sādhyāsādhyatā* of the disease depends on many factors such as the *bala* of *nidana* & *rogibala*, the strength of *doṣaprakopa*, the sthana of the disease, severity of signs and symptoms, duration of the disease, *rogamarga*, *dhātudushti* etc.

When the *gṛdhrasi* is associated with *vāta* and *kaphadoṣa*, the Chances of cure are easier than that when it is occurred due to *kevala vāta doṣa*.

Upadrava

Upadravās are produced as a sequel of the disease proper. Their emergence increases the graveness and complexity of treatment. Their description in various classics is as follows **Suśruta Samhita:-**

Suśruta has elaborately described *upadravās* of eight *maharogas* including Vātavyadhi in general as well as that of *Vāta-vyadhi* independently (Su.Su.33/6-7).

Upadravās of Eight Mahavyadhi:

Bala Kshaya, shvasa, tṛṣṇā, māmsa, shosa, vamana, jwara, mūrchā, atisara, hikka. If these are present, then a wise should not start any treatment procedure.

Specific Upadrava of Vātavyadhi:-

• shotha

• suptatā

bhagna

kampa

ādhmāna

If $V\bar{a}tavyadhi$ co-exist with any of the above mentioned $Upadrav\bar{a}s$, then in such patient

disease come under the āsādhya (incurable) vyadhi category.

2.9 Cikitsā siddhānta (Line of treatment)

The treatment of the disease is called *Cikitsā*. The first and the foremost principle to be

adopted in the treatment of each and every disease is to avoid the *nidāna* of the disease

i.e. nidānaparivarjana. Secondary the intensity of the doṣaprakopa should be

considered before deciding the line of treatment.

If the dosaprakopa is minimum lamghana cikitsā is enough, if the intensity of

doşaprakopa is moderate then lamghana and pācanatreatment should be given. If,

however doṣaprakopa is maximum, śodhana treatment should be decided.

Grdhrasi being a vātavyadhi, the general treatment of vātavyadhi is applicable to

gṛdhrasi also.

अभ्यंगम्स्वेदनम्बस्तिनस्यस्नेहविरेचनम्।

स्निग्धाम्ललवणंस्वाद्व्अम्वात्तकफम्॥

केवलेपवनेव्याधिस्निग्धान्नभोजनम।

abhyamgam svedanam basti nasyasneha virecanam

snigdhāmlalavaṇam svādu vruam vāttakapham

43

kevale pavane vyādhi snigdhānna bhojanam

Vishishta Cikitsā for Gṛdhrasi:

The effective treatment of *gṛdhrasi* can not be unified, as the pathology involves multiple varying factors. Vitiated *vāta* and association of *kaphadoṣa* coming out from the *pakwashaya*, afflicting the *asthidhātu* vitiating *snāyu* and *kandara* affecting in the *asthi* produces the illness. Therefore, the procedures mainly aimed at the modification of the imbalances of *vāta doṣa* as well as *kaphadoṣa*. Thus, the unique pathogenesis eases the planning of the treatment in case of *vātaja gṛdhrasi*. But in case of *vātakaphajagṛdhrasi*, the final treatment planned should pacify the *vāta* as well as *kaphadoṣa* effectively.

With consideration of this, following principles of treatment are advocated in the Ayurvedic classics-

Table 2.9-1. Treatment principles mentioned in Ayurvedic classics texts

Treatment	Cha	Su	A.H.	B.P	Y.R	H.S	B.S	C.D
Snehana	-	-	-	-	-	+	+	+
Svedana	-	-	-	-	-	+	-	+
Vamana	-	-	-	+	-	-	-	+
Virecana	-	-	-	+	-	-	-	+
Niruha Basti	+	-	-	-	-	-	-	-
AnuvāsanaBasti	+	-	+	+	+	-	+	+
Sirāvyadha	+	+	+	-	+	-	-	+
Raktamokṣaṇa	-	-	-	-	-	+	+	-
Agnikarma	+	-	+	-	+	+	-	+
Sastrakarma	-	-	-	-	-	-	-	+

1. Snehana:

Snehana or oleation therapy is used externally and internally in case of *gṛdhrasi*. Externally *snehana* may be performed in the form *abhyamga*, *picchicila*, *avagāha*, *pariṣeka*etc. One should remember that if the *kaphadoṣa* is involved in the pathogenesis as in case of *vātakaphaja gṛdhrasi*, *snehanacikitsā* should be restricted as this treatment tends to worsen the imbalance of *kaphadoṣa*.

2. Svedana:

Shula and *stambha* in the lower extremities are the cardinal symptoms of *grdhrasi* and is best treated by the *svedanacikitsā*. *Svedana* also helps in the liquefication of the *doṣa* there by assisting clearing the *Srotas* or else rectifying the *margaavarana*.

Among the different forms of *Svedana* procedures, *avagāha sveda*, *picchicila*, $n\bar{a}d\bar{i}sveda$, *patrapinda sweda*, *pindasveda* and *upanahasveda* may be efficiently performed in patients of *grdhrasi* (C.Ch.28/78). But in *vātakaphajagrdhrasi*, *bāluka sveda* is a better option for evident reasons.

3. Vamana:

After the *Snehana* and *Svedana*, *Śodhana* is indicated in *gṛdhrasi*. The authors like *Cakrapāṇi* and *Bhavamishra* opine that without *śodhana* of body, *basticikitsā* will not give desired effect in patients of *gṛdhrasi* (c.k.vātavya.ch.). *Śodhana* in the form of *vamana* is advised in patients suffering *gṛdhrasi* and is specially preferred in *vātakaphajagṛdhrasi* for evident reasons.

4. Virecana:

Virecana has an important role in *gṛdhrasi*. The action of *virecana* is not only limited to particular site; it has effects on the whole body. In *vātavyadhi* most of the authors mentioned *mriduvirecana* (Ch.Chi.28/83). Oral administration of '*ErandaSneha*' along

with milk is ideal for the *virecana* purpose (A.S.Ch.23). This will help in both *vāta* anulomana as well as smooth excretion of mala. The *snehavirecana* clears obstruction in the *srotas* and relieves *vāta* vitiation very quickly (A.S.Ch.23). Thus *snehavirecana* of *mridu* nature helps in controlling *shula* in *grdhrasi*.

5. Basti:

Pakwashaya is the primary location of vāta doṣa. It is true that vyanavāta is vitiated in gṛdhrasi. So, basti is very helpful in pacifying vāta, further it is described that basticikitsā as 'ArdhaCikitsā' or 'PurnaCikitsā' of vāta (Ch.Su.1/40). By these facts, basti is most important among the panchakarma in the treatment of gṛdhrasi. No other Cikitsā has the capacity to pacify and regulate the force of Vāta apart from basti (Su.Ch.35/29). Any type of basti can be adopted but, initially one should purify the body by śodhanakarma to get the desired effect.

- **Niruha Basti:** *NiruhaBasti* like *erandamuladiniruha* and *dashamuladiniruha* are the best choices.
- **Anuvasana basti:** *Anuvasanabasti* using *vātāhāratailas* like *balataila*, *mulakataila*, *kṣīrabalā taila*, *prasāriṇī taila* etc. are beneficial.

6. Sirāvyadha:

Ācārya caraka explained sirāvyadha at the site of antara-kandara gulpha (Ch. Chi. 28/101). ĀcāryaSuśruta and vāgbhaṭṭa indicated sirāvyadha four angula above and four angula below at the site of knee joint.

7. Raktamoksaņa:

It is a general rule that, when the regular treatment with *ṣaḍavidha upakrama* fails to give any relief in any disease, one should consider the involvement of *raktadhātu* in the pathogenesis and is best treated by *raktamokṣana*. This rule is also applicable in

gṛdhrasiroga (A.H.Su.27/4-5). As the disease gṛdhrasi is characterized by affliction of rakta along with vāta, several authors have advised raktamokṣaṇa.

8. Agnikarma:

Various $\bar{A}c\bar{a}rya$ mentioned agnikarma in the management of Grdhrasi. According to Suśruta and $v\bar{a}gbhatta$, in the management of sira, $sn\bar{a}yu$, asthi and sandhigatavyadhi, agnikarma is indicated and grdhrasi is one of the diseases of these $sampr\bar{a}pti$. (Su. Chi. 4/8; A.H.Chi. 21/22; Su. Su. 12/10).

For treatment of *Gṛdhrasi*, different site for *Agnikarma* are as mentioned below-

- Ācārya caraka : AntaraKandara Gulpha
- Carkradatta: Pāda KanistikaAnguli (little toe of the affected leg).
- Harita: Four Angula above the Gulpha in Tiryak Gati.

Mostly in practice where pain is more prominent primarily, *Agnikarma Cikitsā* can be done.

Basti Karmukta (Action of Enema Treatment)

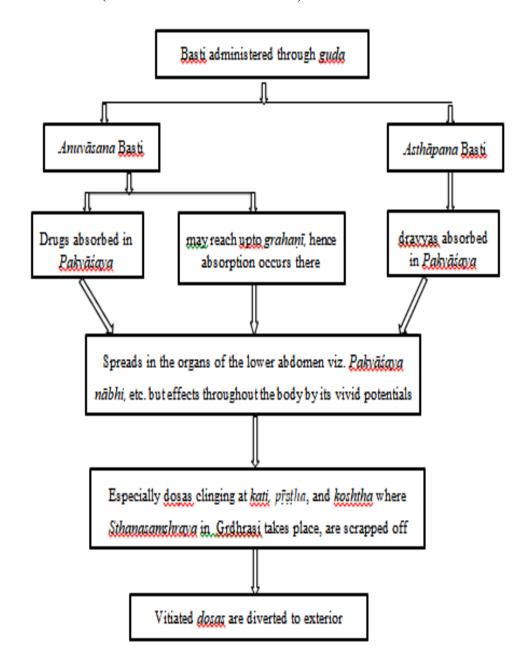


Fig-2. Basti Karmukta (Action of Enema Treatment)

Systemic action of basti:

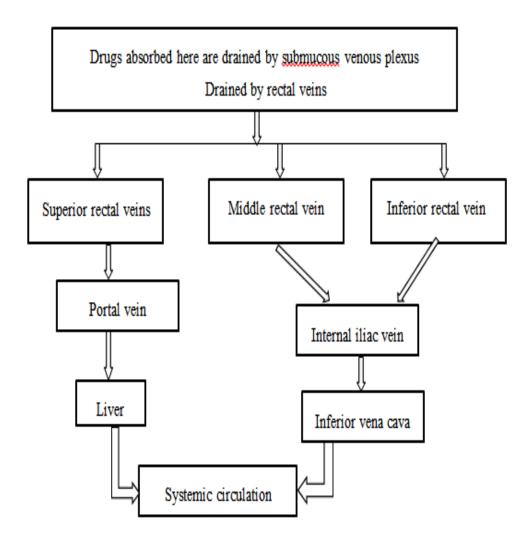


Figure -3. Systemic action of basti

Drugs when administered forcefully through rectal route may reach upto Grahani (Duodenum), hence absorption may occur in the jejunum.

"Materials introduced by enema, in some instances pass through the walls into the illium, such incompetence may permit the enema fluid to reach the duodenum".

(Physiological basis of medicine-Best Tailor)

Hence possibility of absorption of *anuvāsana basti* or *sneha* part of *asthāpana basti* seems to be there in the small intestine.

Asthapana basti is a kaṣāya pradhana basti hence there is every chance of its absorption in the pakvashaya. An undigested food material with a large amount of water enters into large intestines, where most of water portion gets absorbed and faeces are formed. So the drugs in water medium might get absorb in the colon and perform systemic actions.

According to acharya parashara guda is sharira-mula and is rich in sira.

These *siras* provide nutrition to whole body.

Mode of action of basti according to modern:

- Basti may be absorbed directly or by diffusion, filtration, osmosis.
- Rectum is rich in its blood and lymph supply.

The ions in the *Basti* are absorbed and essential for action potential (the main functional unit of nervous system). Sodium ions are absorbed by diffusion and active transport while chloride ions enter via passive diffusion facilitated by sodium absorption. Calcium ions can be absorbed via active transport. *Sneha* given in *Basti* stimulates cholecystokinin enzyme which stimulates gall-bladder to secrete bile. *Sneha* remains for a longer time hence some amount may be absorbed through rectosigmoid mucosa and remaining portion may be acted upon by bile whose main function is emulsification of lipids. 10% to 20% of bile enters to colon. Bile salts orm a micelle, in the centre of micelle dissolve the fatty acids and monoglycerides.

In *āsthāpana basti Sneha* is added into *madhu* and *saindhava* and with continous triturition emulsification takes place. This resembles a micelles which can be absorbed through epithelial layer. Synthesis of Vitamin B12, Vitamin K etc. is increased by influence on normal bacterial flora. Production of thiamine is also influenced.

Enteric nervous system a division of autonomic nervous system is composed of thousands of small ganglia that lie within the walls of G.I tract. It controls motility, regulates fluid exchange and local blood flow, regulates gastric and pancreatic secretions, regulates gastroitestinal endocrinal cells, defence reactions, entero-enteric reflexes, ENS-CNS interactions etc. CNS and ENS have great influence upon each other. Hence, by influencing CNS through ENS Basti may produce neuromuscular remodeling and pain modulation.

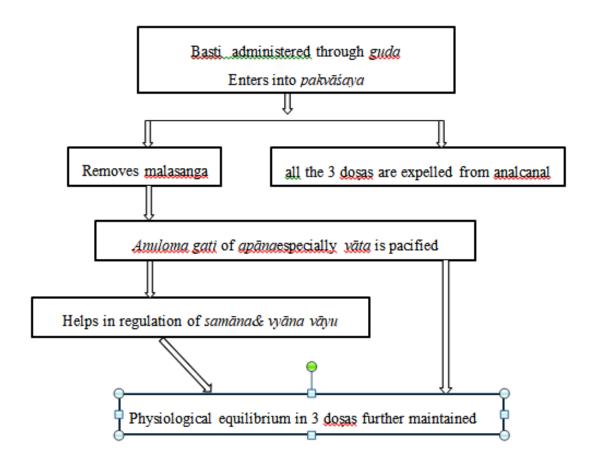


Figure -4. Mode of action of basti according to modern

9. Shastra-Karma:

Chakradatta has given the treatment of gṛdhrasi in details. He has mentioned a small operation with prior snehana and svedana to remove granthi in gṛdhrasi and also siravedha four angula below indrabastimarma.

Shamana Cikitsā:

Following Cikitsā can be included under Shamana cikitsā-

- 1. *Vedanaśāmaka Cikitsā* To pacify the severity of pain.
- 2. *VātāhāraCikitsā* Elimination of vitiated *Vāta doṣa*.
- 3. *KaphāhāraCikitsā* Pacification of vitiated *KaphaDoṣa*.
- 4. *Dīpana & Pācana* To balance the *Agni*

Vedanaśāmaka Cikitsā:

Though no any treatments are describing such a classification but if we go through the recent texts, many *vedanaśāmaka* combinations are prescribed in *gṛdhrasi* that probably contain *kupilu*, or *guggulu*. As pain is one of the cardinal symptoms in *gṛdhrasi*, these medications may be effectively prescribed.

Vātahara Cikitsā:

As mentioned earlier, $v\bar{a}t\bar{a}h\bar{a}ra\ cikits\bar{a}$ is the primary line of treatment in grdhrasi. It includes both shamana and sodhana procedures. This is the unique principle of treatment in $v\bar{a}taja\ grdhrasi$.

Kaphahara Cikitsā:

When the *grdhrasi* is caused due to vitiated *vāta doṣa* in association with *kaphadoṣa*, addition of *kaphāhāra cikitsā* forms the complete treatment. Planning of both *vātāhāra* and *kaphāhāra cikitsā* simultaneously may not be easy as the individual treatment of *vāta doṣa* and *kapha doṣa* is mutually contradictory. Combinations containing *guggulu* and *śodhita kupilu* are the best in such conditions as it acts both on *vāta* and *kapha*.

Dīpana and Pācana Cikitsā:

In *shaman cikitsā*, *deepana* and $p\bar{a}cana$ cikitsā is most useful to destroy the *Ama* and to maintain the equilibrium of the *agni*, thus achieving the physical harmony.

Ācārya chakradattahave described in the context of amavātarogadhikara, ajamodadivati in the case of gṛdhrasi (Chakradatta 25/51-55).

Shamanaushadhis Used in Gṛdhrasi

Table 2.9-2. Curṇas, Kalka and Lepa used in Gṛdhrasi

Kalpanas	Y.R	S.S	B.P	B.R.	C.D	G.N
Curņas						
Ajamodādi Curņa	-	+	-	-	-	-
Abhayādi Curṇa	+	-	-	-	-	-
Kṛṣṇādī Curṇa	-	-	+	+	-	-
Rāsnadi Curṇa	+	-	-	-	-	-
Daśamūlādi Curņa	-	+	-	-	-	-
Kalka and Lepa:						
Mahā nimbaKalka	+	+	-	-	-	-
Rasona Kalka	-	+	-	-	-	-
Swalpa Rasona Pinda	-	-	-	-	+	-
Guṁjā Phala Lepa	+	+	-	-	-	-
Vātahara Pradeha	-	-	-	+	-	-

Table 2.9-3. Kaṣāya, Arishta, Gritha & Taila used in Gṛdhrasi

Kwatha/Kaṣāya and Arishta:	Y.R	S.S	B.P	B.R.	C.D	G.N
Panchamula						
Paṁcamula Kaṣāya	+	-	-	+	+	+
Mahā Rasnadi Kaṣāya	+	+	+	-	-	-
Shefalikapatra Kaṣāya	-	+	-	+	+	+
Eranḍādi Kaṣāya	-	-	-	+	-	-
Daśamūlā Kaṣāya	+	+	-	-	-	-
Balāariṣṭa	-	-	-	+	-	-
Daśamūlaarishta	-	+	-	-	-	-
Taila and Ghrita:						
BalāTaila	-	+	+	-	-	-
EraṇḍaTaila	+	-	+	+	-	-
VājīgandhādiTaila	+	-	-		-	+
SaindhavādyaTaila	+	-	-	-	+	-
MāṣādiTaila	-	+	-	-	+	-
Vishagarbha Taila	+	-	-	+	-	-
PrasāraņiTaila	+	+	-	-	-	-
Mahābalādi Taila	+	+	-	-	-	-
Nārāyaṇa Taila	-	+	-	-	-	-
Dhaturādi Taila	-	+	-	-	-	-
	1	1				

Table 2.9-4. Vati, Guggulu and Rasayogas used in Gṛdhrasi

Vati, Guggulu and Rasayogas	Y.R	S.S	B.P	B.R.	C.D	G.N
Rāsnā Guggulu	+	-	+	+	+	+
Trayodaśāmga Guggulu	+	-	-	+	+	-
Yogaraja Guggulu	-	+	-	+	-	-
Mahāyogaraja Guggulu	-	-	+	-	-	-
Pathyadi Guggulu	+	-	+	-	-	-
Vātari Rasa	-	-	-	+	-	-
Vātagajankusha Rasa	-	-	-	+	-	-
Vātarakshasa Rasa	+	-	-	-	-	-
Swachhanda Bhairava Rasa	-	+	-	-	-	-

Some Other Yogas:

Bhavaprakash has advised gomutra + eraṇḍataila + pippalicurṇa to be taken for a long period to eliminate vāta-kaphajagṛdhrasi. Decoction of sephalika leaves is also advised in Bhavaprakash.

Harita has advised that phanta of dravya like shatavari, bala, atibala, pippali and pushkarmoola if taken with erandataila, cures gṛdhrasi.

Chakradatta has described decoction of sephalika leaves as best for chronic grdhrasi.

Pathya Apathya

Pathya:

Those $\bar{a}h\bar{a}radidravyas$, which are beneficial to *Srotasa* and have no adverse effect on body and mind, are termed as *pathya*. *Pathya* is a major to support the line of treatment of any disease; separately *pathya* and *apathya* of *grdhrasi* are not described. Hence *pathya* and *apathya* of *vāta vyadhi* in general can be applied for patients of *grdhrasi*.

Āhāra:

- ✓ Anna Varga : Kulathi, masha, godhuma, raktashali, navina tila, purana shalyodana.
- ✓ Phala Varga : Amla, rasayukta phala, dadima, draksha, jambira, badara.
- ✓ SākaVarga : Patola, shigru, rasona.
- ✓ Dugdha Varga: Kshira, ghrita, navneeta.
- ✓ Dravya Varga: Mamsa rasa, mudga yusha, dhanyamla.
- ✓ Taila Varga: Tila Taila, sasharpa taila, eranda taila.
- ✓ Anya Varga: Tambula, ela, kustha.

Vihāra:

Sukhoṣṇa Pariseka, nirvātasthana, samvahana, avagahana, abhyanga, brahmācārya, ushnapravarana, agniaatapasevana, snigdha- ushnalepa.

Apathya:

Those $\bar{a}h\bar{a}ra$ and $vih\bar{a}ra$ which have adverse effects on body and are non homologatory to body are called apathya.

Āhāra:

Kalaya, chanaka, kanguni, kodrava, shyamaka, nivara, nishpava beeja, rājamāṣa, jambu, trinaka, tinduka, śuṣkamamsa, dushita jala.

Vihāra:

Vegadhāraṇā, vyavāya, vyāyāma, vamana, raktamokṣaṇa, prajagarana, diwaswapna, adhava, ati-gaja-ashwa-uṣṭra-yānasevana.