



ISSN 2456-3110

Vol 4 · Issue 5

Sept-Oct 2019

Journal of
**Ayurveda and Integrated
Medical Sciences**

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences



Charaka
Publications

Indexed

Critical review on pathogenesis of *Vataj* and *Vatakaphaj Gridhrasi* (Sciatica)

Dr. Demendrakumar Thakre,¹ Dr. Jaiprakash Ukey,² Dr. Pramod Gahane³

¹Assistant Professor, Department of Sharir Rachana, ²Assistant Professor, Department of Agadtantra, ³Assistant Professor, Department of Kayachikitsa, M. S. Ayurved College, Gondia, Maharashtra, INDIA.

ABSTRACT

In Ayurveda, nomenclature of diseases has been done in different ways e.g. according to *Dosha-Dushya* involved, according to symptoms etc. Here, the word *Gridhrasi* is suggestive of the typical character of pain and also the gait of the patient. *Gridhra* means vulture. Vulture is fond of meat and has a particular fashion of eating meat. It pierces its beak deeply in the flesh and then draws it forcefully, causing severe pain. The pain in *Gridhrasi* is also of the same kind, hence the name of this illness. 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 '*Gridhrasi*'. Also, because of the persisting severe pain, the patient has a typical gait (slightly tilted towards the affected side, affected leg in flexed position and the other leg is extended). This gait resembles that of the vulture. The particular causative factors of *Gridhrasi* are not mentioned in the classics. The general causes of *Vatavyadhi* are considered as the causes of *Gridhrasi* since it is considered under eighty *Nanatmaja Vata Vyadhies*. These *Vata* disorders are caused by almost the same *Vata Prakopaka Nidanas*, but the different diseases are due to the *Samprapti Vishesha* of the vitiated *Vayu*. The *Vataprakopaka Hetus* found in different *Samhita*.

Key words: *Gridhrasi*, *Sciatica*, *Vataj Nidana*, *Vatavyadhi*.

INTRODUCTION

The term '*Gridhrasi*' is derived from word '*Gridhra*'. The word '*Gridhra*' is made up from '*Gridhu*' *Dhatu*. *Gridhu Dhatu* means to desire, to covet, strive after greedily. Various factors that have the ability of producing a disease immediately or after some period of time are termed as *Nidana*. The disease process starts from *Hetu Sevan* itself. While considering the *Chikitsa* part, the avoidance of *Nidana* forms the

foremost line of treatment of any disease. The symptoms^[1] of *Gridhrasi* are *Ruka* (pain), *Toda* (pricking pain), *Spandana* (twitching), *Stabdhatu* (numbness), *Tandra* (drowsiness), *Arochaka* (loss of taste) etc. To be more precise about the track of pain,^[2] Chakrapani says that the pain starts at hip and then radiates to lumbar region, back, thigh, knee, calf and feet in order. Also *Sakthikshepanigraha* (impossibility to lift the lower extremities) is added to the list of cardinal signs by *Acharya Sushruta* and *Vagbhata*.

Tandra (drowsiness), *Gaurav* (heaviness), *Aruchi* (loss of appetite), *Bhaktadwesa* (rejection of food), *Mukhapraseka* (excessive salivation) etc. are the *Lakshanas* of *Vatakaphaja Gridhrasi*.

The effective treatment of *Gridhrasi* cannot be unified, as the pathology involves multiple varying factors. Vitiated *Vata* and association of *Kapha Dosha* stemming out from the *Pakwashaya*, afflicting the *Asthi Dhatu* vitiating *Snayu* and *Kandara* affecting in the *Asthi* produces the illness. *Vata* is the main culprit

Address for correspondence:

Dr. Demendrakumar Thakre

Assistant Professor, Department of Sharir Rachana,
M. S. Ayurved College, Gondia, Maharashtra, INDIA.

E-mail: sunder147@gmail.com

Submission Date: 19/09/2019

Accepted Date: 24/10/2019

Access this article online

Quick Response Code



Website: www.jaims.in

Published by Maharshi Charaka
Ayurveda Organization, Vijayapur,
Karnataka (Regd) under the license CC-
by-NC-SA

in *Gridhrasi*. Obviously, *Pakwashaya* is the *Udbhavasthana* of the disease. Among the five types of *Vata*, *Apana* and *Vyana Vayu* are mainly involved. In *Gridhrasi*, *Sakthiutkshepanigraha* (impossibility to lift the lower limbs) is the main sign i.e. upward lifting of the lower limb is affected. This clearly explains the involvement of *Vyana Vayu* in the *Samprapti* as these movements are governed by *Vyana Vayu*. Also sometimes *Kapha* is the *Anubandhi Dosha* producing *Vatakaphaja Gridhrasi*. Therefore, the procedures mainly aimed at the rectification of the imbalances of *Vata Dosha* as well as *Kapha Dosha*, if associated, forms the sheet anchor of treatment of *Gridhrasi*. Thus, the unique pathogenesis eases the planning of the treatment in case of *Vataja Gridhrasi*. But in case of *Vatakaphaja Gridhrasi*, the final treatment planned should pacify the *Vata* as well as *Kapha Dosha* effectively.^[3]

AIMS AND OBJECTIVES

1. To study the *Nidana* and *Samprapti* of *Gridhrasi* (sciatica)
2. To study the specific *Vataj* and *Vatakaphaj* *Nidana* of *Gridhrasi* (sciatica).

Nidana^[4,5]

The general causes of *Vatavyadhi* are considered as the causes of *Gridhrasi* since it is considered under eighty *Nanatmaja Vata Vyadhies*. These *Vata* disorders are caused by almost the same *Vata Prakopaka Nidanas*.

Table 1: Vata Prakopa Samanaya Nidana.

Ahartah Nidana (causative factor related to diet)

The Factors	Ch	Su	A. H	M. N	S.S	B. P	H.S	C.D
Dhatukshayakaraka (substances causing dhatu depletion):								
<i>Ruksha Anna</i> (dry food)	+	+	+	+	+	+	-	+
<i>Sheeta Anna</i> (cold food)	+	+	-	+	+	+	-	-

<i>Alpa/Parimit Anna</i> (diet below the requirement)	+	-	+	+	+	+	-	-
<i>Laghu Anna</i> (light diet)	+	+	-	+	+	+	-	-
<i>Langhana</i> (fasting)	+	-	-	+	-	-	-	-
<i>Abhrojana/Anas han</i> (complete fasting)	+	+	-	+	-	+	-	-
<i>Katu, Kashaya, Tikta Rasa</i> (diet with pungent, astringent, bitter tastes)	-	+	+	+	-	+	-	+
<i>Shushkashaka</i> (dry vegetables)	-	+	-	-	-	-	-	-
<i>Mudga, Nishpav, Masura</i> (lentils)	-	+	-	-	-	+	-	-
<i>Shushkamansa</i> (drymeat)	-	+	-	-	-	-	-	-
Margavarjanaka (substances causing obstruction of Dhatu)								
<i>Vishamashana</i> (untimely diet)	-	+	-	-	-	-	-	-
<i>Adhyashana</i> (overeating)	-	+	-	-	-	+	-	+
<i>Bhuktamjeerna taram</i> (eating immediately after meals)	-	-	-	-	-	+	-	-
<i>Viruddhabhojan</i> (incompatible food)	-	-	-	-	-	+	+	-
<i>Kalaya, Chana, Masura</i> (some type of lentils)	-	+	-	-	-	+	-	-

<i>Kashaya Rasa</i> (astringenttaste)	-	+	+	-	-	+	-	+
---------------------------------------	---	---	---	---	---	---	---	---

Table 2: Vihartah Nidana (lifestyle habits)

Factors	C h	S u	A. H	M. N	S. S	B. P	H. S	C. D
Dhatukshayakarak (factors leading to depletion of Dhatu)								
<i>Ativyavaya</i> (excess in sexual activity)	+	+	+	+	-	+	-	+
<i>Atiprajagara</i> (staying awake at night)	+	+	+	+	+	+	+	+
<i>Vishamupachara</i> (contradictory treatment)	+	-	-	+	-	-	-	-
<i>Ati Plavana / Bahubhyam Taranam</i> (excess off swimming)	-	+	-	-	-	-	-	-
<i>AtiPradhaavan</i> (excessive running)	+	+	-	+	-	+	+	-
<i>AtiVyayam</i> (excessive exercise)	+	+	+	+	-	-	+	+
<i>AtiVicheshta</i> (hyperactivity)	+	-	+	-	-	-	-	-
<i>Dukkha Shayya / Asana</i> (uncomfortable posture while sleeping)	+	-	-	-	-	-	-	-
<i>Abhighata</i> (trauma)	+	+	-	+	+	-	-	-
<i>Bharaharan</i> (carrying weight)	-	+	-	-	+	+	-	-
<i>Vega udirana</i> (excess of natural urges)	-	-	+	-	-	-	-	-

<i>Ucchayebhashyanam</i> (loud talking)	-	-	+	-	-	-	-	+
<i>Padaticharya</i> (excessive walking)	-	-	+	-	-	-	-	-
Margavarjanak (factors leading to obstruction of dhatu)								
<i>Vegavarodha</i> (suppression of natural urges)	+	+	+	+	-	+	-	+
<i>Sheetajaltaran / Atisevan</i> (excessive intake of cold water)	-	+	-	-	+	-	-	-

Table 3: Manasika Nidana (mental causative factors)

Factors	C h	S u	A. H	M. N	S. S	B. P	H. S	C. D
<i>Chinta</i> (stress)	+	-	+	+	+	+	+	+
<i>Shoka</i> (grief)	+	-	+	+	+	+	-	+
<i>Krodha</i> (anger)	+	-	-	-	-	-	-	-
<i>Bhaya</i> (fear)	+	-	+	-	+	+	-	+
<i>Atyantakamaudaya</i> (excessive desire for sex)	-	-	-	-	+	+	-	-
<i>Atyantatamoguna</i> (excess of tama)	-	-	-	-	-	-	+	-
<i>Bhutabhisanga</i>	-	-	-	-	-	-	+	-

Table 4: Miscellaneous

Factors	C h	S u	A. H	M. N	S. S	B. P	H. S	C. D
Dhatukshayakarak								
<i>Atidoshasravana</i> (excessive flow of doshas)	+	-	-	+	-	-	-	-
<i>Vamanvirechanaati yoga</i>	-	-	+	-	-	-	-	-

<i>Atiasriksravana</i> (excessive blood letting)	+	-	-	+	-	+	+	-
<i>Rogatikarshana</i> (overtreatment)	+	-	-	+	-	+	-	-
Margavarodhanak								
<i>Ama</i>	+	-	-	-	-	-	-	-

Vata gets vitiated by two ways viz. *Dhatukshaya* and *Margavarana*. So, the various *Vataprakopaka Hetus* are divided like wise. The *Hetus* are reorganized under the main headings as *Aharatah*, *Viharatah*, *Kalatah*, *Manasika* and *Miscellaneous*.^[6]

DISCUSSION

Samprapti (Pathogenesis)

The process of manifestation of the disease by the morbid *Doshas* which are circulating all over the body is known as *Samprapti*, *Jati* or *Agati*.^[7] The whole disease process is explained as '*Shatkriyakalas*' by *Acharya Sushruta*. They are *Sanchaya*, *Prakopa*, *Prasara*, *Sthanasamshraya*, *Vyakta* and *Bheda*. For the disease *Gridhrasi*, the detailed *Samprapti* has not been mentioned in Ayurvedic classics. Since *Gridhrasi* is a *Vatavyadhi*, the general *Samprapti* of *Vatavyadhi* along with specific description available are considered here for the explanation of *Samprapti*. There are two main reasons by which *Vata* get vitiated. They are *Dhatukshaya* and *Margavarodha*.^[8] Because of the *Samprapti Vishesh*, the same *Nidanans* produce different *Vatavyadhies*. This is because the presentation of the disease changes according to the *Sthana* where *Dosha-Dushya Sammurchhana* takes place.^[9] *Khavaigunya* plays an important role in the disease process. In *Gridhrasi*, exposure to mild but continuous trauma to *Kati*, *Sphika* region because of improper posture, travelling in jerky vehicles, carrying heavy loads, digging etc. or sometimes spinal cord injury, improperly treated pelvic diseases are responsible for producing *Sthanaigunya* at *Kati*, *Sphika*, *Prishta* etc. They may not be able to produce the disease at the instance, but after acquiring some *Vyanjaka Hetu* (exciting cause), the disease may be

produced. Here, the *Samprapti* takes place either by *Apatarpana* or *Santarpana* or *Agantuja*. In the state of *Apatarpana*, all the *Dhatus* viz. *Rasa*, *Rakta*, *Mansa* etc. are subjected to *Kshaya*. This *Dhatukshaya* results into the aggravation of *Vata* and this vitiated *Vata* fills up the empty *Srotasas* ultimately causing *Vatavyadhi*.^[10] The second type of *Samprapti* takes place by *Santarpana* causing *Margavarodha*. Here *Kapha* is found as *Anubandhi Dosha* along with *Vata*. *Atibhojan*, *Diwaswapa* etc. are the factors responsible for this kind of *Samprapti*. Deranged *Jatharagni* leads to formation of *Ama*. *Ama* produces obstruction to the normal *Gati* of *Vata*. To overcome the resistance *Vata* attempts to function hyperdynamically. This leads to *Vataprakopa*. Also when *Ama Samsrista Vayu* resides at *Kati*, *Prishta* etc. *Gridhrasi* may be produced.^[11] *Lakshanas* like *Tandra*, *Gaurav*, *Agnimandya* etc. are observed due to involvement of *Kapha* and *Ama*. Impaired *Dhatwagni* may lead to the production of *Adhyasthi*, *Arbuda*, *Granthi* etc. i.e. *Apachita Dhatus*. If they cause *Avarodha* in the *Vatavahanadi* of the lower limb, *Gridhrasi* may be produced. The *Agantuja* factors chiefly *Abhighata* (trauma) etc. are responsible for the '*Achayapurvaka Prakopa*' of *Doshas*. *Abhighata* leads to *Dhatukshaya* directly and *Vata* provocation is liable to occur. The vitiated *Vata* may directly intermingle with *Asthi*, *Majja Dhatu* to produce *Gridhrasi*. Here the intermediate steps of *Samprapti* i.e. *Chaya*, *Prakopa*, *Prasara* etc. are absent. Also *Abhighata* may lead to *Khavaigunya* at the site. *Asthidhatu* and *Vata Dosha* have *Ashraya-Ashreyi Sambandha*. *Asthi-kshaya* deals with *Vata Prakopa*. Also *Vata Prakopaka Ahara Sevan* is the main cause of *Asthivaha Srotodushti*.^[12] *Viharatmaka Hetus* like *Ativyayam* etc. may cause *Asthivaha Srotodushti*. *Majja* is the deep seated *Sneha* in the *Asthidhatu*. *Rukshadi Ahara* cause *Shoshan* of *Majja Dhatu*. *Viruddha Ahara*, *Abhighata* etc. are the causes of *Majjavaha Srotodushti* which are commonly observed in the patients of *Gridhrasi*. *Mansa* and *Meda Dhatu* are *Snigdha*, *Guru Dhatu*. *Rukshadi Ahara* hampers the process of their *Poshan* (nourishment) leading to *Mansa* and *Meda Kshaya*. Also *Sphika* is *Mansa Pradhan Avayava*. *Sphika Shushkata* is mentioned in *Mansakshaya Lakshana*. *Rukshata* at

Mansa Dhatu produces *Stambha* in the muscles of lower limb restricting its movement. *Katisandhi* may be involved in *Gridhrasi*. *Sandhis* are responsible for the movement of the limbs. In severe *Vataprakopa*, *Sandhichuti* i.e. *Bramsha* of *Sandhi* specifically in the vertebral column may be seen. This can be correlated to prolapse of intervertebral disc.

In the *Lakshanas* of *Asthi*, *Meda* and *Mansa Kshaya*, *Sandhi Shunyata*, *Sandhi Shaithilya* and in *Asthi* and *Majja Kshaya*, *Asthi Saushirya*, *Asthi Daurbalya* and *Laghuta* are described.^[13] All these *Dhatukshaya Lakshanas* can be correlated to degenerative changes specifically in bone e.g. osteomalacia, osteoporosis, spondylosis, tuberculosis etc. *Acharya Sushruta* has mentioned the involvement of *Kandara* in *Gridhrasi*. *Dalhana* explain *Kandara* as *Mahasnayus*. According to *Vaidyaka Shabdasindhu*, *Snayus* are the *Nadis* that conduct *Vayu*. According to *Sushruta*, *Vayu* in its normal state, while coursing through its specific *Siras* helps the unobstructed performance of its specific functions viz. *Prasarana* and *Akunchana* and produces clearness and non illuiveness of *Buddhi* and the sense organs. When vitiated *Vayu* enters the *Siras*, it causes variety of diseases. *Sushruta* has quoted special variety of *Siras* called as *Vatavaha Siras*, which are the channels of movement of *Vata*, in the senses.

Charaka explains *Kandaras* as the *Upadhatu* of *Rakta Dhatu*.^[14] *Chakrapani* mentioned that *Kandara* may also be considered as *Sthula Snayu*. *Snayu* is the *Upadhatu* of *Meda* and *Mulasthan* of *Mansa Dhatu*. Also *Charaka* has mentioned *Stambha*, *Supti*, *Sphurana* etc. which are the symptoms of *Gridhrasi* under the diseases produced due to *Dushti* of *Snayu*, *Sira* and *Kandara*.^[15] Thus, from the above description involvement of *Rasa*, *Rakta*, *Mansa*, *Meda* and mainly *Asthi*, *Majja Dhatus*, *Kandaras*, *Siras* and *Snayus* is obvious in *Gridhrasi*.

Table 5: Samprapti Ghataka

Nidana	Vataprakopakanidana
Dosha	Vata – Apana and Vyanavayu, Kapha
Dushya	Rasa, Rakta, Mamsa, Meda, Asthi, Majja, Sira,

	Kandara, Snayu
Agni	Jatharagni and Dhatvagni
Ama	Jatharagnimandyajanita and Dhatvagnijanita
Udbhavasthana	Pakwashaya
Samcharasthana	Rasayani of Apanakshetras
Adhithana	Kandaras of Parshni, Pratyanguli and Sphik Sphikaa, Kati, Uru, Janu, Jangha, Pada.
Srotas	Rasa, Rakta, Mamsa, Meda, Asthi, Majja
Srotodushti	Sanga and Margavarodha
Rogamarga	Madhyam
Vyakti	Sphika, Kati, Prishtha, Uru, Janu, Jangha, Pada.
Bheda	Vataj and Vata Kaphaj
Swabhav	Chirkari

CONCLUSION

Gridhrasi is produced by *Vata Prakopaka* or *Vata Vriddhi* having symptom of *Stambha*, *Ruka*, *Toda* and *Muhuspandanam*. *Vata Prakopa Ahara Vihara* gives rise to aggravation of *Vata* and at the same time, *Ruksha*, *Khara*, *Laghu*, *Sheeta*, *Daruna*, *Vishada*, *Chala Guna* of *Vata* suppresses the *Snigdha*, *Guru*, *Mridu*, *Pichchhila* and *Sandra Guna* of *Kapha* which leads to decrease of *Sleshma*. Decreased *Sleshma* in *Kati-Prishtha*, *Sakthi* and in *Kandara* in turn result into aggravation of *Vata*. This way, *Vata* located in *Kandara* and produces the symptoms viz. *Stambha*, *Ruka*, *Toda* and *Spandana* in *Kati*, *Prishtha*, *Uru*, *Janu*, *Jangha* and *Pada* in respective order.

REFERENCES

- Shukla V, editor, (1st ed.). *Charaka Samhita* of Charak, Nidansthana: Chapter 1, Verse 9. Varanasi: Chowkhambha Sanskrit Series, 2002; p 195
- Shukla V, editor, (2nd ed.). *Charaka Samhita* of Charak, chikitsa: Chapter 28, Verse 56. Varanasi: Chowkhambha Sanskrit Series, 2002; p741

3. Srikantha Murthya. K. R, Sushruta Samhita of Sushruta, Vol 1, 1st Edition, Chaukhamba Orientalia, Varanasi, 2000: pp 108
4. Yadavji Trikamji, editor, Charaka. Charaka Samhita (Ayurveda Deepika commentary of Chakrapanidatta revised by Charaka and Dridhabala).. 4th ed. Varanasi: Chaukhamba Publishers; 2013. *Chikitsa* sthanam, 28/59. p.619.
5. Haridasasiva Paradakara, Vagbhata. Ashtanga Hridaya (Commentaries of Ayurveda Rasayana by Hemadri and Sarvanga Sundari by Arunadatta,). 4th ed. Varanasi: Chaukhamba Publications; 2010. *Nidana* Sthanam, 15/6. p.533.
6. Shukla V, editor, (2nd ed.). Charaka Samhita of charak, chikitsa: Chapter 28, Verse 59. Varanasi: Chowkhambha Sanskrit Series, 2002; p619
7. Tripathi B, editor, (1st ed.). Ashtanga hridaya of Vagbhata, SootraSthana; Chapter 12, Verse 51. Varanasi: Chowkhambha Sanskrit Series, 2009; p 178.
8. Sharma U, editor, (1st.). Madhav Nidan of Madhavkara, ArshaRognidan: Chapter 1, Verse 10. Benares: Chowkhambha Sanskrit Series, 1943; p 43
9. Shukla V, editor, (2nd ed.). Charaka Samhita of charak, chikitsa: Chapter 28, Verse 50. Varanasi: Chowkhambha Sanskrit Series, 2002; chakrapani p 619.
10. Yadavji Trikamji Sushruta Sutra Sthana 21/33 Sushruta Samhita, NibandhaSangraha, Reprint edition 2010 Varanasi, Chaukhamba surbharti Prakashana p 106.
11. Shukla V, editor, (2nd ed.).Charaka Samhita of charak, chikitsa: Chapter 28, Verse 17. Varanasi: Chowkhambha Sanskrit Series, 2002; p 617
12. Shukla V, editor, (2nd ed.).Charaka Samhita of charak, chikitsa: Chapter 15, Verse 48. Varanasi: Chowkhambha Sanskrit Series, 2002; p 517
13. Shukla V, editor, (1nd ed.).Charaka Samhita of charak, Vimansthan: Chapter 5, Verse 7. Varanasi: Chowkhambha Sanskrit Series, 2002; p250.
14. Aathavale PG, editor, (2nd ed.). Sushrut Samhita of Sushruta; SharirSthana, Chapter 7, Verse 9, Nagpur, Godavari publishers and book promoters,2008; p 377
15. Shukla V, editor, (2nd ed.).Charaka Samhita of charak, chikitsa: Chapter 15, Verse 77. Varanasi: Chowkhambha Sanskrit Series, 2002; p 518.

How to cite this article: Dr. Demendrakumar Thakre, Dr. Jaiprakash Ukey, Dr. Pramod Gahane. Critical review on pathogenesis of Vataj and Vatakaphaj Gridhrasi (Sciatica). J Ayurveda Integr Med Sci 2019;5:212-217.

Source of Support: Nil, **Conflict of Interest:** None declared.
