

Role of Agnikarma in Gridhrasi (Sciatica) - A Conceptual Study

Review Article

Brahmanand K Swamy^{1*}, Patil Akshata Vijaykumar², Sapna Hiremath³

1. Associate Professor, Department of Shalya tantra, 2. PG Scholar, Department of Panchakarma,
3. Associate Professor, Department of RachanaSharira,
NKJ Ayurvedic Medical College, Bidar.

Abstract

Pain is the chief cause of visiting a doctor in most patients. Vata is responsible for all painful conditions in the body. Gridhrasi is one among vataja nanatmaja vyadhi affecting the locomotor system in which pain is major symptom. The name itself indicates the way of gait shown by the patient due to extreme pain just like a Gridhrasi (Vulture). In Gridhrasi intense shooting pain start from sphik pradesha and radiates downwards to kati, prusta, uru, janu, jangha and pada in which the patient is unable to walk properly. The pain starts in the back and radiates down to one or both lower limbs. On the basis of symptoms of Gridhrasi; it can be equated with the disease sciatica in modern science. It occurs due to spinal nerve irritation and is characterized by pain in distribution of sciatic nerve. Statistically it is estimated that low back pain and radiating pain due to lumbar disc prolapse are major cause of morbidity throughout the world. The life time incidence of low back pain is 50-70% with incidence of sciatica more than 40%. It disturbs daily routine and overall life of the patient. In modern medical science, only symptomatic management with analgesics like NSAIDs and a very few surgical procedures are available. The surgical procedures are expensive with many limitations. In Ayurveda, various methods used in treatment of Gridhrasi are Bheshaja, Snehana, Swedana, Siravedha, Agnikarma and basti. Among these, Agnikarma is one of the para-surgical procedures which is very effective, simple, safe, cheap and having quick action. In current study a humble attempt is made to explain the role of Agnikarma in Gridhrasi.

Keywords: *Gridhrasi, Agnikarma, Sciatica.*

Introduction

Good health is the base of achievements like *Dharma, Artha, Kama* and *Moksha*. *Ayurveda* is the one and only medical system which gives the way of perfect living with nature. It gives equal importance to preventive and curative aspects of diseases. According to *Ayurveda*, only physical, mental, social and spiritual well being can be considered as *Arogya*.

Pain is the chief cause of visiting a doctor in most patients. It is known as *Ruja*, which is one of the synonyms of disease. It disturbs physical and mental status of a patient. As per *Ayurveda*, *vata* is responsible for all painful conditions in the body. *Gridhrasi* is one among such *vataja nanatmaja vyadhi*, affecting the locomotor system in which pain is major symptom. The name itself indicates the way of gait shown by the patient due to extreme pain just like a *Gridhrasi* (Vulture) (1).

In *Gridhrasi*, intense shooting pain start from *sphik pradesha* and radiates downwards to *kati, prusta, uru, janu, jangha and pada* in which the patient is unable to walk properly (2). The pain starts in the

back and radiates down to one or both lower limbs (3). In modern parlance the above condition is described in which pain is experienced along the course and in the distribution of sciatic nerve. It is known as sciatica.

Due to advancement of busy professional and social life, improper sitting postures in office and factories etc., created undue pressure to the spinal cord. Continuous over exertion, jerking movements during the travelling and sports are also playing their part in producing neurological pain. In this way, this disease is now becoming a significant threat to working population. Likewise, progressive disorders affecting the pelvis and nearer structures are also precipitating this condition. In an overall assessment, majority of patient has some symptoms related with pain in low back and legs.

The description regarding *Gridhrasi* present in almost all *Ayurvedic* classics. Acharya *Caraka* in *sutrasthana* describes two types of *Gridhrasi* viz *vataja* and *vatakaphaja*. The cardinal signs and symptoms are *Ruk, Toda, Muhuspandana*, *Sthamba* in *Spik, Kati, Uru, Janu, Jangha* and *Pada* in order (4) and *sakthikshepa nigraha* i.e., restricted lifting of the leg. In *kaphanubandhi Gridhrasi- Tandra, Gourva, Arochaka* are present.

As per the treatment of sciatica is concerned, in the conventional medical practice only the symptomatic management with analgesics like NSAIDs and sedative types of medication, physiotherapy and lastly surgery which is also not the final answer, as all these are

*Corresponding Author:

Brahmanand K Swamy

Associate Professor,

Dept of Shalya tantra,

NKJ Ayurvedic Medical College, Bidar,

Email: drbramswamy@rediffmail.com

having their own complication and adverse reactions.

In *Ayurvedic* texts, there are various methods used as a line of treatment of *Gridhrasi* such as- *Bheshaja*, *Snehana*, *Swedana*, *Siravedha*, *Agnikarma* and *Basti*.

Among these, *Agnikarma* is one of the para-surgical procedures performed with the help of agni which is very effective, simple, safe, cheap and having quick action. Also, *Sushrutacharya* has given utmost importance to this unique procedure – as the diseases treated by *Agnikarma* do not relapse and moreover those incurable by medicines (*bheshaja*), operations (*shastra*) and caustics (*kshara*) (5).

Agnikarma

The references regarding *Agnikarma* in the management of *Gridhrasi* were found in various *samhitas*.

Carakacharya mentioned *Agnikarma* in *Gridhrasi* at the site of *Antara-Kandara-Gulpha pradesha* (6) i.e., from mid of medial aspect to the mid of lateral aspect of lower limb, covering the dorsal surface at height of four angulas from medial malleolus and lateral malleolus/Achilles tendon.

Sushrutacharya mentioned *Agnikarma chikitsa* in diseases due to aggravated *vata* located at *twak*, *mamsa*, *sira*, *snayu*, *sandhi* and *asthi*. *Gridhrasi* is one among this (7).

In *Chakradatta* and *Yogaratanakara* (8), we find direct reference of *Agnikarma* in *Gridhrasi* over *Kanishatika anguli* of *pada* (little toe).

The actual procedure of *Agnikarma* is performed in three steps i.e., *purva karma*, *pradhana karma* and *paschata karma*.

In *purva karma*, the exact sight of *Agnikarma* should be marked and cleaned.

During the *pradhana karma*, the procedure of *Agnikarma* is done with the red hot *shalaka* at the marked sight in such a way that *samyaka dagdha lakshanas* were observed.

In *paschatakarma*, the pulp of *Aloe vera* was applied over treated part and then powder of *Yashtimadhu* and *Haridra* was sprinkled.

Discussion

The actual mechanism of action of *Agnikarma* still remains as an enigma to the medical community. Several theories can be adopted to explain these mechanisms but their action varies according to the condition. The probable theories related to this topic are

According to Ayurveda (9)

Effect on dosha

Agnikarma is considered as best therapy for *vata* and *kapha dosha* because Agni possesses *ushna*, *sukshma*, *tikshna guna*, *aashukari guna* which are opposite to *vata* and *kapha*. Thus removes *srotovarodha* and increase the *rasa-rakta samvahana* to the affected site.

Effect on dhatu :

Therapeutic heat transferred by *Agnikarma* increase the *dhatwagni*, so metabolism at the *dhatu* level increases which helps to digest the *amadasha*.

Possible Scientific Explanations.

Increased metabolism (10)

This is in accordance with Van't Hoff's statement that, heating of tissues accelerates the chemical changes i.e., metabolism. The increase in metabolism is greatest in the region where most heat is produced, which in the superficial tissues. As a result of increased metabolism there is an increased demand for oxygen and foodstuffs, and an increased output of waste products, including metabolites.

Effects of heating on nerves (11)

Heat appears to produce definite sedative effects by means of sensory excitation. There is an evidence that any sensory excitation reaching the brain simultaneously with a pain excitation, results in the pain impulse being more or less attenuated. Pain receptors of skin and motor end plate stimulated at 45 °C. Pathway for pain and thermal signals run parallel and ends into same area but only stronger one can be felt. Therefore complete exclusion of pain impulse by heat occurs (11).

Effect on temperature (12)

The theory of thermodynamics applied upon a biological system- suggests that when thermal energy is transferred from an instrument to a tissue its internal energy increases and the heat energy gets transferred to the cells. The thermodynamic centre of the body immediately gets activated to distribute this localized rise in temperature throughout the body. As a result vasodilatation occurs and blood flow increases. According to Van't Hoff's principle the basal metabolism of the body increases by certain percentage for every 10 rise in body temperature (13). Rise in temperature induces relaxation of muscles & hence muscles spasm with inflammation and pain gets reduced. Muscles relaxes most readily when tissues are warm which in turn reduces the spasm, inflammation and pain.

As blood passes through the tissues in which the rise of temperature has occurred it becomes heated and carries heat to other parts of the body. Thus by means of *Agnikarma* vasomotor centre is affected along with the heat regulating centre in the hypothalamus, and a generalized dilatation of the superficial blood vessels results. The vasodilation ultimately leads to increased blood flow to the site (12).

Conclusion

Gridhrasi is one of the leading causes of pain in most of the patients. In today's era quick pain relief is of prime importance to resume normal activities. *Agnikarma* is one of the simple, cost effective modality, an instant healer of pain with no complications.

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