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A conceptual review on the efficacy of Agnitundi Vati in the management of Gridhrasi w.s.r. to Sciatica

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ABSTRACT

Background: Gridhrasi is Shoolapradhan Nanatmaj Vata Vyadhi mainly caused due to vitiation of Vata Dosha. The cardinal signs and symptoms of Gridhrasi are Ruk, Toda, Muhuspandan, Stambha. Gridhrasi can be correlated with sciatica due to resemblance of symptoms. The prevalence of sciatica varies considerably ranging from 1.6% in the general population to 43% in selected working population. Sciatica is characterised by constant aching pain in the lumbar region radiating to the buttock, calf and foot caused by irritation to the sciatic nerve. Being a nervine disorder, it can be treated by a drug having Vatashamak & Shoolaghna properties. Agnitundi Vati is a unique formulation having Shoolaghna & Vatahara properties. Kuchala is the major content of Agnitundi Vati which is more effective in nervine disorder. Kuchala being a potent spinal poison contains two major alkaloids named strychnine and brucine and it is subjected to be used after proper Shodhan process of Kuchala. Present study aimed to compile all the available literature regarding the pharmacological action of Agnitundi Vati. Aim & Objectives: To study the literary review of Agnitundi Vati & it's mode of action in Gridhrasi. Materials & Methods: Various Samhita Granthas, textbooks and articles related to Agnitundi Vati & sciatica were studied. Result & Discussion: Agnitundi Vati is the formulation having Vatashamak & Shoolahar properties due to its Ushna Virya. Hence it proved to be a potent formulation for management of pain in Gridhrasi.

Key words: Gridhrasi, Sciatica, Agnitundi Vati, Kuchala.

INTRODUCTION

Ayurveda, one of the ancient science of life describes Gridhrasi as one amongst the eighty types of Nanatmaj Vatavyadhi^[1] Gridhrasi is the commonly occurring disease in both geriatric and middle aged person. The general etiological factors for Gridhrasi are improper sitting posture, over exertion, jerky movements while travelling, injury to lumbosacral spine, etc. The cardinal signs and symptoms of Gridhrasi are Ruk (pain), Toda (pricking sensation), Muhuspandan sensation), Stambha (stiffness) in the Sphik, Kati, Uru,

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Janu, Jangha and Pada.[2]

Vata Dosha plays a major role in the etiopathogenesis of the disease but when Vata Dosha is associated with Kapha Dosha, it shows symptoms of Tandra (drowsiness), Gaurav (feeling of heaviness), Arochak (anorexia). Gridhrasi can be correlated with sciatica due to resemblance of etiopathogenesis The prevalence of sciatica varies symptoms. considerably ranging from 1.6% in the general population to 43% in selected working population.[3] Pain in sciatica is very severe, sharp and shooting pain which leads to difficulty in sitting and walking, eventually hampering the daily routine of the individual.^[4] Sciatica, being a nervine disorder, it can be treated by a drug having Vatashamak & Shoolaghna properties. Agadtantra is one of the recognized branch of Ashtang Ayurved which deals with poisons, their toxic effects and usage of poisons as a medicine after standardized purification process of poisons. Agnitundi Vati is a unique formulation which is made up of using Dravyas with different origins majorly including Kuchala as the main ingredient. Kuchala is the major content and active ingredient of Agnitundi Vati which

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is more effective in nervine disorder. *Kuchala* being a potent spinal poison contains two major alkaloids named strychnine and brucine and it is subjected to be used after proper *Shodhan* process of *Kuchala*. Present study aimed to compile all the available literature regarding the pharmacological action of *Agnitundi Vati*.

AIM

To study the efficacy of *Agnitundi Vati* in the management of *Gridhrasi* w.s.r. to Sciatica

OBJECTIVES

- 1. To study the literary review of Agnitundi Vati
- 2. To study the mode of action of *Agnitundi Vati* in the management of *Gridhrasi*.

REVIEW OF LITERATURE

Gridhrasi

In Ayurveda, the disease named *Gridhrasi* suggestive of typical character of pain and gait of the patient. Due to severe pain, the patient has a typical gait slightly tilted towards the affected side and affected leg in flexed position and another leg extended. The meaning of *Gridha* is vulture, this gait resembles with that of vulture. In this disease, the patient walks like a bird *Gridha*, due to this *Gridhrasi* term might have been given to this disease. [5] The clinical features of *Gridhrasi* are *Ruk* (pain), *Toda* (pricking sensation), *Muhuspandan* (tingling sensation), *Stambha* (stiffness) in the *Sphik*, *Kati*, *Uru*, *Janu*, *Jangha* and *Pada*.

Sciatica

Sciatica is a neurological disease, characterized by constant aching pain in the lumbar region radiating to the buttock, calf and foot caused due to irritation to the sciatic nerve.^[6]

Sciatic nerve is the largest nerve in the body. Sciatic nerve carries impulses between nerve roots in the lower back and nerve of the buttocks, thighs and lower legs.^[7] Any irritation or compression to the nerve roots often occurs as a result of damage to the discs between the vertebrae. Pain associated with sciatica is very

sharp and severe and often accompanied with tingling, numbness and sensitive to touch.

Agnitundi Vati^[8]

Acharya Sharangdhar has mentioned Agnitundi Vati in Sharangdhar Samhita Madhyam Khanda. Agnitundi Vati is a unique herbomineral formulation which is a combination of drugs having poison origin, mineral origin, Kshara origin, Lavana and plant origin. As the name Agnitundi Vati suggests Agni means fire, helps in improving and strengthening the Jathragni. Hence this formulation is mainly used in Agnimandya. Due to the properties and Doshaghnata of ingredients i.e., Vatakaphaghna, it is also useful in Vatapradhan and Kaphapradhan diseases. Gridhrasi being Shoolapradhan Nanatmaj Vatavyadhi, it can be treated by a formulation having Deepana, Pachana, Vaatahara and Shoolaghna properties.

Table 1: Showing the contents and properties of Agnitundi Vati

| S N | Ingredients | Latin Name | Rasa | Virya | Vipak a | Doshaghn ata | | | | | |
|--------|------------------------------------|--------------------------------|----------------|-------|-------------|-------------------|--|--|--|--|--|
| Visi | Visha Dravya (Poison Origin Drugs) | | | | | | | | | | |
| 1 | Shuddha Kuchala ^[9] | Strychn os nuxvomi ca | Tikta, Katu | Ushna | Katu | Vatakaph ahara | | | | | |
| 2 | Shuddha Vatsanabh [[] | Aconitu m ferox | Madhura | Ushna | Madh ura | Vatakaph ahara | | | | | |
| Mir | Mineral Origin Drugs | | | | | | | | | | |
| 3 | Shuddha Parad ^[11] | Hydrarg yrum | Shadaras | | | Tridoshah ara | | | | | |
| 4 | Shuddha Gandhak ^[12] | Sulphur | Katu | Ushna | Madh ura | Tridoshah ara | | | | | |
| Ksh | Kshara Origin Drugs | | | | | | | | | | |
| 5 | Sajjikshar ^{[13} | Fagonia arabica | Katu | Ushna | | Vatahara | | | | | |
| 6 | Yavakshar ^{[1} 4] | Hordeu m vulgare | | | | Vatahara | | | | | |

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| | | | | | | | | |
| Lavana Dravya | | | | | | | | |
| 7 | Saindhav Lavana ^[15] | Sodium Chloride | Lavana | Sheeta | | Tridoshah ara | | |
| 8 | Sauvarchal Lavana ^[16] | Unaqua Sodium chloride | Lavana | | | Vatahara | | |
| 9 | Samudra Lavana ^[17] | Sodii muras | Lavana | | | Vatahara | | |
| Pla | nt Origin Drug | s | | | | | | |
| 1 0 | Ajamoda ^[18] | Carum roxburg hianm | Katu, Tikta | Ushna | Katu | Vatakaph ahara | | |
| 1 | Chitrak ^[19] | Plumba go zeylanic a | Katu | Ushna | Katu | Vatakaph ahara | | |
| 1 2 | Jiraka ^[20] | Cuminu m | Katu | Ushna | Katu | Vatakaph ahara | | |
| 1 | Vidanga ^[21] | Embelia ribes | Katu, Kashaya | Ushna | Katu | Vatakaph ahara | | |
| 1 4 | Amalaki ^[22] | Emblica officinali s | Lavanrahi t Panchras a, Amlaprad han | Sheeta | Madh ura | Tridoshah ara | | |
| 1 5 | Bibhitaki ^[23] | Termina lia belerica | Kashaya | Ushna | Madh ura | Tridoshah ara | | |
| 1 6 | Haritaki ^[24] | Termina lia chebula | Lavanrahi t Panchras a, Kashaya pradhan | Ushna | Madh ura | Tridoshah ara | | |
| 1 7 | Suntha ^[25] | Zingibar e officinal e | Katu | Ushna | Madh ura | Kaphavat ahara | | |
| 1 8 | Maricha ^[26] | Piper nigram | Katu | Ushna | Katu | Vatakaph ahara | | |
| 1 9 | Pippali ^[27] | Piper Iongum | Katu | Anushn asheet | Madh ura | Kaphavat ahara | | |

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| ВІ | Bhavana Dravya | | | | | | | | |
|--------|---------------------------------|------------------|------|-------|------|-------------------|--|--|--|
| 2 0 | Jambir Nimbu ^[28] | Citrus medica | Amla | Ushna | Amla | Kaphavat ahara | | | |

Probable Mode of Action

The major and potent ingredient of *Agnitundi Vati* is *Kuchala* (*Strychnous nux vomica*). *Kuchala* being a potent spinal poison contains two major alkaloids named Brucine (1.7%) and strychnine (1.25-1.5%). Brucine considers the most potent and active alkaloid in Nux Vomica.

When external trauma or any infection occurs, there is release of macrophages in the body in response to inflammatory stimuli. This leads to the secretion of TNF alfa and it consecutively responsible for the induction of IL1, COX2, and PGE2 and ultimately results in inflammation and pain. TNF alfa and IL1 both are proinflammatory markers which releases in the process of acute inflammation and PGE2 is hyperalgesic causes pain. Brucine inhibits TNF alfa (a pro-inflammatory factor) and prostaglandin synthesis (PGE2), hence performing as an anti-inflammatory and analgesic action. [30]

DISCUSSION

Due to the compression or irritation to the sciatic nerve or nerve root leads into sciatica and results in typical symptom of severe pain and difficulty in walking ultimately hampering the quality of life. In modern medicine, there is no satisfactory treatment and conservative treatment includes analgesics, NSAIDS, physiotherapy and bed rest. *Gridhrasi* (Sciatica) is mentioned as a type of *Vata* disease. Treatment protocol for management of *Gridhrasi* involves *Vedana Sthapan* (pain relieving) and *Shothahar* (anti-inflammatory) *Chikitsa*. After assessing the properties of *Agnitundi Vati*, most of the drugs in this formulation posses *Ushna Virya*, *Katu Vipaka* and *Vata-Kaphahara* properties. Thus, it can relieve the symptoms of *Gridhrasi* by balancing the *Vata* and *Kapha Dosha*.

CONCLUSION

In present era, due to the disturbed pattern of daily regimen and sedentary lifestyle, the incidences of pain related diseases are increasing day by day. *Gridhrasi* is

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a disease occurs due to vitiation and dominance of *Vata Dosha* along with irritation of sciatic nerve, leads to severe pain in the lumbar region radiating towards the calf and leg. Treatment protocol of the *Gridhrasi* includes *Vata Dos*ha balancing and pain-relieving treatment. Hence *Agnitundi Vati* proved to be a potent formulation for the management of pain which is the cardinal symptom of *Gridhrasi*.

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