ABSTRACT

Background- Gridhrasi is a Nanatmaj Vatavyadhi. It refers to the pain or discomfort along the path of Sciatic nerve, deriving from Spinal nerve L5–S3. Bhavprakash Samhita has been mentioned Trayodashang Guggulu in the management of Gridharasi. It is a combination of 13 drugs- Ashwagandha, Hapusha, Guduchi, Vruddhadaruk, Abha, Shatavari, Gokshur, Rasna, Shatapushpa, Karchoor, Ajawayan, Shunthi and Guggulu. It possesses Guru, Snigdha gunatmak, Madhur vipaki and Ushna viryatmak properties. Methodology- The Ingredients of Trayodashang Guggulu were studied for their scientific validation. The Ayurvedic texts, research articles and online journals were referred for the research updates. Result- Trayodashang Guggulu - Ashwagandha root has a protective effect against collagen induced arthritis. Guggulu contains essential oil mainly consisting of Myrecene it found that useful in curing diseases like rheumatism, arthritis, inflammation. Hapusha leaf oil has analgesic, anti-inflammatory, detoxifying, anti-rheumatic, neurotonic properties. Rasna plant extract shows anti-inflammatory activity due to exhibition of Prostaglandin synthesis. Conclusion- Trayodashang Guggulu directly impacts on the etiology of Gridhrasi. Its herbs synergistically act as Anti-inflammatory, Anti-arthritic and Analgesic.

KEYWORDS: Anti-inflammatory activity, Gridhrasi, Radiating pain, Trayodashang Guggulu.
INTRODUCTION

Ayurveda is the science of life, a healthy and higher longevity are always desirable from it. Metabolic and degenerative disease of connective tissue and joint problem are quite affluent today.\(^1\) During different stages of the human life disease prevalence is common due to genetic, infection, systemic environmental age related and so on.\(^2\) Gridhrasi is one of the nanatmaja vatavyadhis. The words ‘Gridhrasi’ is derived from the root word ‘Gridhra’ which means the bird ‘vulture’. It is observed that in this disease the patient’s gait is altered as his legs become tense and slightly curved due to pain. The patient walks similar to the walk of the vulture (gridhra). Hence it’s named as ‘Gridhrasi’;\(^3\) Symptomatically Gridhrasi correlate with Sciatica. Sciatica is one of the painful disorders. Sciatic nerve is the largest single nerve in the body. This nerve runs from the lower part of the spinal cord down the back and side of the lower limb to the foot. It refers to the pain or discomfort along the path of Sciatic nerve which is deriving from Spinal nerve L5 – S3. Sciatica pain in the lumbo-sacral region also with the route of sciatic nerve. It may be tingling-numbness in the lower limb.\(^4\) According to Charaka Samhita specific type of pain mentioned for Gridhrasi i.e. pain radiates through the posterior aspect of Uru, Janu, Jangha and Pad (lower limb) and in modern science also pain start from back and radiates up to posterior aspect of thigh, calf muscle, lateral aspect of foot with distribution of sciatica nerve.\(^5\) Any cause which can result in sciatic nerve root irritation or compression can result in pain in the route of sciatic nerve. Various researches are carried out in different parts of management of Gridhrasi and claimed to be effective. In modern medicines there are various kinds of anti-inflammatory and analgesic are available but these medicines are having their own side effects such as G.I. disturbances, Renal abnormalities, Peptic ulcer, Dizziness, Skin rashes etc. that’s why modern medicines cannot be used for longer period as a treatment of choice. In Ayurvedic classics, various herbal and herbo-mineral formulations are explained which need to be studied for their efficacy. In Bhavprakash Samhita Trayodashang Guggulu has been mentioned in the management of Gridhrasi. Many drugs are mentioned in our classic for Gridhrasi among them Trayodashang Guggulu is having more importance because as it has the properties of Vata and Kapha shamana and Anulomana property. Trayodashang Guggulu is a combination of 13 herbs-Ashwagandha, Hapusha, Guduchi, Vruddhadaruk, Aabha, Shatavari, Gokshur, Rasna, Shatapushpa, Karchur, Ajawayan, Shunthi, Guggulu and Ghee.\(^7\) An ingredient of Trayodashang Guggulu possesses Guru, Snigdha gunatmak, Madhur rasa, Madhur vipaki and Ushna viryatmak properties. It may be possible to help in the
regeneration of Interverterebral disc and increase in the function of Mamsa Dhatu by Madhur Vipaka of drugs, thus offering strength to nerves and muscles.

OBJECTIVES
To critically study the role of Trayodashang Guggulu in the management of Gridhrasi w s r Bhavprakash Samhita.

METHODOLOGY
1. Gridharasi- In Charaka Samhita mentioned Gridhrasi as a Nanatmaj Vatavyadhi. It’s named as one among 80 types of ‘Vata’. In Gridhrasi patient walks similar to the walk like Gridhra (Vulture), hence it’s named as Gridhrasi. Vata is the Pradhan Dosha involved in the causation of this disease, as Kati is one Sthan of Vata. Among the subtypes, Vyanavata and Apanavata have got major role in the cause of Gridhrasi. Vitiated Vata affects Mamsa, Sira, Snayu and Sandhi of Kati Pradesh. The Strotas of Rakta, Mamsa and Asthi are also affected in Gridhrasi. It can produce Kati to Padangul shool i.e. pain radiating through posterior aspect of Uru,Janu,Jangha and Pad-pradesh.

Symptomatically and clinically Gridhrasi correlates with Sciatica. It refers to the pain or discomfort along the path of Sciatic nerve, deriving from Spinal nerve L5–S3. It is caused due to bulging disc or herniated disc; when a disc bulges, the gel like center pushes,breaks through the annulus fibrous which can press on nerve roots.

Types of Gridhrasi-Two types of Gridhrasi have been described in Ayurveda 1.Vataja Gridhrasi 2. Vata-Kaphaja Gridhrasi. In Gridhrasi various herbo-mineral medicines and Shamanaoushadhi are mentioned in classical text book. Among them in Bhavprakash samhita, Trayodashang guggulu has been mentioned for its Vata and Vata-Kapha shaman and Anulomana properties.

2. Ingredients of Trayodashang Guggulu

<table>
<thead>
<tr>
<th>Sr.no.</th>
<th>Contents</th>
<th>Latin name</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Guggulu</td>
<td>Commiphora mukul</td>
<td>13 parts</td>
</tr>
<tr>
<td>2</td>
<td>Ashwagandha</td>
<td>Withania somnifera</td>
<td>1 part</td>
</tr>
<tr>
<td>3</td>
<td>Aabha (Babbul)</td>
<td>Acasia arabica</td>
<td>1 part</td>
</tr>
<tr>
<td>4</td>
<td>Guduchi</td>
<td>Tinospora cordifolia</td>
<td>1 part</td>
</tr>
<tr>
<td>5</td>
<td>Hapusha</td>
<td>Juniperus communis</td>
<td>1 part</td>
</tr>
<tr>
<td>6</td>
<td>Shatavari</td>
<td>Asparagus recemosus</td>
<td>1 part</td>
</tr>
<tr>
<td>7</td>
<td>Vriddhadaru</td>
<td>Argyria speciosa</td>
<td>1 part</td>
</tr>
<tr>
<td>8</td>
<td>Rasna</td>
<td>Pluchea lanceolata</td>
<td>1 part</td>
</tr>
</tbody>
</table>
Guggulu Shodhan\textsuperscript{[8]} - Guggulu shodhana was done with Triphala kwath. For Guggulu shodhana stone, bark etc common impurities were initially removed. After that Guggulu was broken into small pieces and tied in cloth and boiled in Dola-yantra containing Triphala kwath. The boiling continued till Guggulu became soft mass. It was taken out from the cloth and spread over smooth wooden board smeared with ghee. Then it was dried in the place free from dust and kept in a glass jar free from moisture. This Shuddha Guggulu heat and used for Trayodashang guggulu preparation.

Preparation of Trayodashang Guggulu\textsuperscript{[9]}

The preparation of Trayodashang guggulu is mentioned in the Bhavprakash Samhita, in which herbal drugs are dried and fine powders of - Ashwagandha, Hapusha, Guduchi, Vruddhadaruk, Aabha, Shatavari, Gokshur, Rasna, Shatapushpa, Karchur, Ajawayan, Shunthi are taken in equal quantity and mixed well. Then Shodhit guggulu is added and again mixed homogenously. After formation of mixture, tablets are made and the Trayodashang Guggulu is prepared. Precautions to be taken-tablets dried in shade and kept in air tight containers.

Mode of action of drug-Trayodashang Guggulu

Chikitsa means nothing but the treatment given to disintegrate or destroy the Samprapti or pathogenesis of the disease. Gridhrasi is a Shalpradhan Nanatmaj Vatavyadhi. The drug Trayodashanga Guggulu is a combination of 13 herbs including Guggulu processed in ghee. According to previously referred research articles, journals, texts the properties of individual drugs were studied. Guggulu has properties like Snigdha, Picchila (stickiness), Ushna Virya (hot in potency), Vatanashaka and Vedanasthapaka (analgesic action). Guggulu contains essential oil mainly consisting of myrecene, dimyrrecene, polymyrecene, z-guggulusterone, E-guggulusterone. These isolates have been found useful in curing diseases like rheumatism, arthritis, inflammation.\textsuperscript{[10]} The constituents like Shatavari, Ashwagandha and Guduchi are known as rejuvenators and provides strength to Dhatus. Shunthi and Ajamoda improve Jatharagni whereas Babbul especially acts on Asthidhatwangi. Ashwagandha root has a
protective effect against collagen induced Arthritis. It also acts as an anti-inflammatory and anti-oxidant agent in decreasing the arthritic effect in collagen induced arthritis. *Hapusha* leaf oil has analgesic, anti-inflammatory, detoxifying, anti-rheumatic, neurotonic properties. *Guduchi* acts as general tonic, anti-spasmodic, anti-inflammatory. *Rasna* plant extract shows anti-inflammatory activity due to exhibition of Prostaglandin synthesis. *Goghri* with its *Yogvahi* property helps in better absorption and penetration of the drug. Thus, *Trayodashang Guggulu* directly impacts on the etiology of *Gridhrasi*.

**DISCUSSION**

Among the *Vatavyadhi, Gridhrasi* is the most common painful condition. In the present competitive world, man has to sacrifice his health to survive good life, so people are working to such an extent that they are seriously affected with various disorders. The patient walks similar to the walk of the Vulture (*Gridhra*). Sciatica is a common result of the aging process that affects discs called degenerative disc disease. There is a change in the disc shape and function and it can result in bulging disc or herniated disc and pain. Clinically it is very painful condition. In all such conditions *Trayodashang guggulu* act with its properties of *Vedanastapana, Shoolhara* and *Rasayana, Madhur Vipaka, Ushna Virya*. By the *Ushna Virya; Snigdha guna of Madhur Vipaka* it suppresses the symptoms of *Stambha, Toda* and reduces pain which is mentioned in *Bhavprakash Samhita*. Intervertebral disc regeneration requires Glycosoaminoglycan (GAGs), collagen and protein which is possible by *madhur vipaka* and *Rasayana* property of *Trayodashanga Guggulu*. Many research articles and journals found that *Ashwgandha* root has a protective effect against collagen induced arthritis. *Guggulu* contains essential oil mainly consisting of Myrecene, Polymyrecene, guggulsterone and E-guggulsterone. *Hapusha* leaf oil has analgesic, anti-inflammatory, detoxifying, anti-rheumatic, neurotonic properties. *Guduchi* acts as a general tonic, anti-spasmodic, anti-inflammatory. *Rasna* plant extract shows anti-inflammatory activity due to exhibition of Prostaglandin synthesis and also drugs of *Trayodashang guggulu* after *Mamasvardhan* effect by property of *Madhur vipak* and regulate the function of *Mamsa dhatu*. Due to *Mamsa Balavardhan*, it gives strength to the *Utkshepana* and *Apakshepana* of leg. Carbohydrates and fat are *Madhur vipaki dravyas* which increase the level of endorphin in CSF and also reduce pain sensitivity in *Gridharasi*. 
CONCLUSION

From the above study we can conclude that Trayodashanga Guggulu mentioned in Bhavprakash Samhita possesses Guru, Snigdha Gunatmak, Madhur rasa, Madhur Vipaki and Ushna Viryatmak properties. It helps in the regeneration of Interverterebral Disc and increase in the function of Mamsa Dhatu by Madhur Vipaka of drugs. In Trayodashanga Guggulu drugs like Ashwagandha, Shatavari, Guduchi, Guggulu, Vriddhadaru, Babbul, Hapusha and Go-ghrit were act as Balya, Rasayan, Vayasthapak, Deepan, Pachan which are very essential to treat Gridhrasi. Thus the contents of Trayodashanga Guggulu directly took part in the samprapti vighatan by their individual properties of each drug. On this conclusion it also shows anti-inflammatory action and analgesic action on Gridharasi. Thus offering strength to nerves and muscles. Trayodashang Guggulu can be safely and effectively prescribed to the patients of Gridhrasi.

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