



REVIEW ARTICLE

# COMPREHENSIVE REVIEW OF SIMHANADA GUGGULU: A FORMULA FOR AMAVATA (RHEUMATOID ARTHRITIS)

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## ABSTRACT

Amavata is a disease characterized by gatrastabdhatata caused by the combined effect of the formation of ama and prakupita vata per trikasandhi. When Ama and Vata simultaneously vitiate and enter Trika and Sandhi, it ultimately leads to stabdhata (stiffness), which is known as Amavata. The disease Amavata can be presented as very similar to Rheumatoid Arthritis. The sickness of Rheumatoid Joint pain is ongoing in nature and influences mostly the moderately aged people. It is one of the common crippling sicknesses due to its chronicity and effects. The beginning of infection is successive during the middle age with 80% of patients fostering the illness between 30 to 50 years old. Several studies show that female is more victim than male and the proportion of event between them is 3:1. It is also noted that frequency is often associated with remission of the disease in last trimester with subsequent relapse after delivery. However, in present era no appropriate medication is available that can give everlasting benefit by permanent remission of the symptoms. The treatment which are available can only give symptomatic relief for time being but their continuous use causes various adverse effects. Thus, people are looking for a safe and effective drug that gives permanent relief. The Ayurvedic system is having its pride in providing such a treatment to cure all these types of chronic ailments. Among them, Simhanada Guggulu is a well-known Guggulu preparation indicated in Amavata. It was first mentioned by Acharya Chakrapani in Chakradatta. Action of this drug works to offer pain relief and detoxification and combats loss of appetite. An attempt is made to compile the review of Ayurvedic literature of

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Simhanada Guggulu.

**Key words :** Simhanada Guggulu, Amavata, Rheumatoid Arthritis

## INTRODUCTION

Amavata with extraordinary reference to Rheumatoid Joint pain is one of the feared infections that the humanity faces today. This repulsive infection starts as joint solidness eventually opens up as a reason for some others. It can influence numerous features of a patient's life, viz. his family, social and professional life. It influences not just the social and financial place of the individual and his family, however it prompts the depleting of public asset because of the work hours lost, bringing about reduced creativity and output. The current medications cannot fulfill the goals of an optimal treatment and cause several side effects like gastrointestinal ulceration and bleeding. The Ayurvedic system is having its pride in providing such a therapy to address all these types of chronic ailments.

Vati are essentially a tamper proof dosages form, therefore there are no chances of adulteration or mixing, having accuracy of dosage, unit doses forms and offer the greatest dose precision and the least content variability, cost is lowest of all oral dosage forms and offers great ease of administration, as compared to other dosage forms.

Simhanada Guggulu is also one of the vati kalpana and offers above mentioned advantages as medicament.

## MATERIALS AND METHODS

All the literature regarding the use, doses, Anupana, Rasa Panchaka, pharmacological actions, probable mode of action of Simhanada Guggulu were compiled from different classical treatise and available sources of information.

Different formulation of Simhanada Guggulu in different classical texts :

**Formula 1:** Ayurvedic Formulary of India

Sr. No.	Drug	Quantity of drug
1	Haritaki	48g
2	Bibhitaka	48g
3	Amalaki	48g
4	Eranda taila	192g
5	Shuddha Gandhaka	48g
6	Shuddha Guggulu	48g
7	Water for Decoction	576ml

**Procedure :** Decoction of triphala is prepared by diluting it four times with water and then reducing it to a quarter. Eranda oil was added to this kwatha and then heated. When its concentrated enough, fine powders of Shuddha

gandhaka and Shuddha guggulu were added and combined thoroughly.

**Dose :-** 3g

**Anupana :-** Warm water

**Formula 2 :** Ayurveda Sara Sangraha <sup>2</sup>

Sr. No.	Drug	Quantity of drug
1	Shu.Guggulu	3.75 part
2	Shu.Gandhaka	1.25 part
3	Triphala	11.25 part
4	Eranda taila	1 part

Eranda oil is added to the mixture and after that Shuddha guggulu is dissolved in hot water, added to above mixture, then it is pounded in lauha ullukhal yantra. Then pills weighing 3 ratti each are made and dried.

**Formula 3:** Vangasena<sup>3</sup>, vatarakta adhikara, Rasa Tantra Sar and Siddha Prayoya Sangraha<sup>4</sup>, Bhrihat nighantu Ratnakara<sup>5</sup>, chakradatta<sup>6</sup>, Bhaisajya Ratnavali<sup>7</sup>, Bhava Prakash<sup>8</sup>, Yoga ratnakara<sup>9</sup>

Sr. No.	Drug	Quantity of drug
1	Triphala decoction -separate	3 pala
2	Eranda taila	1 kudava
3	Shuddha gandhaka	1 pala
4	Shuddha guggulu	1 pala

The method of preparation is same as for the acharyas described above.

**Formula 4:** Yoga ratnakara<sup>10</sup>, Vrihat yoga ratnakara<sup>11</sup>

Sr. No.	Drugs	Quantity of drug
1	Haritaki	1 prastha
2	Bibhitaka	1 prastha
3	Amalaki	1 prastha
4	Guggulu	1 prastha
5	Water for decoction	Sardha rashi
6	Devadaru	1/2 pala
7	Triphala	1/2 pala
8	Trikatu	1/2 pala
9	Musta	1/2 pala
10	Chitraka	1/2 pala
11	Vidanga	1/2 pala
12	Guduchi	1/2 pala
13	Ajavayan	1/2 pala
14	Mankanda	1/2 pala
15	Bhallataka	1/2 pala
16	Shavari (chitrak mula )	1/2 pala
17	Trivrit	1/2 pala
18	Shudhha parade	1/2 pala
19	Shudhha gandhaka	1/2 pala
20	Dantibeeja	1000 no.
21	Kutajabeeja	8 pala

Procedure : kwatha preparation (from 1-4 drugs in said quantity of water and reduced to half), filtered kwatha heated and allowed to concentrate, then churna (16-

17, 20-21 drugs and kajjali) added and medicine prepared.

Therapeutic indication : amavata

**Formula 5: Bhaishjya Ratnavali<sup>12</sup>, Bhava Prakash**

Sr. No.	Drugs	Quantity of drug
1	Haritaki	2 prastha
2	Bibhitaka	2 prastha
3	Amalaki	2 prastha
4	Guggulu	8 pala
5	Katu taila	8 pala
6	Water for decoction	Sardha drona
7	Devadaru	2 karsha
8	Triphala	2 karsha
9	Trikatu	2 karsha
10	Musta	2 karsha
11	Chitraka	2 karsha
12	Vidanga	2 karsha
13	Guduchi	2 karsha
14	Chavya	2 karsha
15	Mankanda	2 karsha
16	Surankand	2 karsha
17	Trivrit	2 karsha
18	Danti	2 karsha
19	Shuddha suta	2 karsha
20	Shuddha gandhaka	2 karsha
21	Dantibeeja	1000 no.

Procedure : the procedure is same as mentioned above .

Dose :2 ratti

Anupana : warm water

Therapeutic indication : Amavata , Sandhivata , Ashmari , Pandu shirovata , Kamla

The quantities of guggulu and triphala in Yoga Tarangini<sup>13</sup> are different, yet they are the same .

Guggulu	1 prastha
Triphala	1 prastha (each)

Vrihat Nighantu Ratnakara differs from the previous formulation in the following ways :

**Formula 6: Vrihat Nighantu Ratnakara<sup>14</sup>**

Sr. No.	Drugs	Quantity of drug
1	Triphala (each)	1 prastha
2	Guggulu	1 prastha
3	Katu tail	1 pala
4	Ghrita	1 pala

Dose : 2 shana

**Formula 7: Vangasena<sup>15</sup>**

Sr. No.	Drug	Quantity of drug
1	Haritaki	1 prastha
2	Bibhitaka	1 prastha
3	Amalaki	1 prastha
4	Guggulu	8 pala
5	Water for decoction	2 drona
6	Kraunch	1/2 pala
7	Triphala	1/2 pala
8	Trikatu	1/2 pala
9	Musta	1/2 pala
10	Chitraka	1/2 pala
11	Vidanga	1/2 pala
12	Guduchi	1/2 pala
13	Vacha	1/2 pala
14	Mankanda	1/2 pala
15	Trivrit	1/2 pala

16	Danti	1/2 pala
17	Shuddha parada	1/2 pala
18	Shuddha gandhaka	1/2 pala
19	Kanaka beeja	1000 no.

**Table 1 :**

Sr. No.	Name of the Dravya	Rasa Panchaka	Doshaghanata	Rogaghanata	Chemical Constituents	Pharmacological Action
1	Amalaki	Rasa - Kashaya, Amla, Madhur Guna - Laghu Veerya - Sheeta Prabhava - Pittasamak rasayan	Tridosha shamaka, especially pittashamaka	Shotha, Paittikashirahsh ula, Kustha, Trishna, Arsha, Daha, Drishtimandya, Udavarta, Charmaroga, Aruci, Kshaya, Jeernajwara, Agnimandya, Ya kridvikara, Khalitya, Amlapitta, Parinamashula, Hridroga, Raktapitta	Fruit contains vitamin C, carotene, nicotinic acid, riboflavin, myoinositol and a pectin, X-glucosyl, D-Glucose, D-fructose, D-mannosyl, Indole acetic acid, phyllembic acid, phyllembin tannins, polyphenolic compound, terchebin, corialgin, ellagic acid, alkaloids, phyllantidine and phyllantine.	Antioxidant, Immuno modulatory, Antipyretic, Analgesic, Cytoprotective, Antitussive and Gastroprotective actions
2	Vibhitaki	Rasa- Kashaya Guna - Laghu, Ruksha Veerya - Ushna Vipaka - Madhura Prabhava - kaphapiita samak	Tridoshashamaka, especially kaphashamaka	Shotha-vedanayuktavikara, Vatavyadhi, Agnimandya, Charmaroga, Ashmari, Palitya, Shwasa, Klaibya, Hridroga, Vrana, Anidra, Adhmana, Trishna, Netraroga	Chebugalic acid, Chebulasic acid, Sitosterol, Egalic acid, Galic acid, Galloylglucose, Oxalic acid, ramosse	Purgative, Anti-helminthic, Antibiotic

3	Haritaki	Rasa - Panchras (lavanvarjt) Guna - Laghu Veerya - Ushna Prabhava – Tridosahara	Tridoshashamaka, especially vata shamaka	Shotha-vedanayuktavikara, Vatavyadhi, Shula, Raktavikara, Udararoga, Mukharoga, Nadidaurbalya, Agnimandya, Anaha, Gulma, Vibandha, Arsha, Shwasa, Ashmari, Kustha, Vishamajwara, Mutraghata		Rejuvenating, Brain tonic, Appetizer.
4	Guggulu	Rasa - Katu, Tikta, Kashaya  Guna - Laghu, Sukshma, Ruksha, Picchala  Prabhava - Vatabalasjeet	Vata Kapha Samaka	Amavata, Kustha, Prameha, Vatavyadi, Granthi, Sopha, Gandamala, Medoroga	Diterpenoids, triterpenoids, steroids, long-chain aliphatic tetrols, aliphatic esters, ferulates, lignans, carbohydrates, minor amounts of sesamin	Anti-inflammatory, Diuretics, Antioxidant, manages high cholesterol.
5	Eranda	Rasa - Madhur, Tikta, Kashaya, Katu  Guna - Tikshna (taila) Veerya - Ushna (taila) Prabhava - Vedan, Rechan (veej), Vataghna (mul), Shothahara (Patra)	Balances kapha and vata dosha	Udavartahara ,pleehaghna, gul mahara, bastisho olahara, antravru ddhinut, shonita vikara , shoshahara, shoolahna ,margashodhana ,shwasahara, kas aha5ra, anahahara, kati - basti rujahara ,shiroruji ,mehahara, amavatahara	Steroids, flavonoids, saponins, glycosides, and alkaloids	Anti-inflammatory, Spasmogenic, Hepatoprotective, CNS depressant, Anti-fertility, Purgative, Immunizing, and spasmolytic
6	Gandhaka	Rasa -Madhura Guna -usna Veerya -ushna Vipaka -katu Prabhav - deepana ,pachana,anti -		Kandu (itching), kushta(skin diseases), visarpa (herpes), dadru (ringworm)	pure sulphur, sulphides and sulphates	Antifungal, antibacterial, keratolytic



## **PRACTICABLE USES OF SIMHANADA GUGGULU FOR COMPREHENSIVE HEALTH**

### **Rheumatoid arthritis**

Rheumatoid arthritis is an autoimmune condition in which the body attacks healthy cells, which in turn may weaken our bones. Dallavi et al.<sup>16</sup> did a study in 2018 on the clinical efficacy of simhanada guggulu on rheumatoid arthritis. The study showed that simhanada guggulu might be used in the management of rheumatoid arthritis. Further studies are necessary to prove these findings.

### **Systemic sclerosis**

Systemic sclerosis is an autoimmune disease that causes fibrosis (damage or injury) of blood vessels, skin and other tissues, along with organs like the lungs, heart, kidneys and gastrointestinal tract. Sreenithya et al. in 2021, carried out a study on the ayurvedic management of systemic sclerosis<sup>17</sup>. Results indicated that simhanada guggulu could be possibly used along with other ayurvedic medicines for the management of systemic sclerosis. Further studies are necessary to prove its pharmacological effects.

### **Spondylitis**

Ankylosing spondylitis is a condition that causes bones in the spine (vertebrae) to fuse, which may result in reduced flexibility and a hunched-back posture. Singh et al. in 2020 did a study that showed that the administration of

simhanada guggulu, along with other ayurvedic medicines, may be used for ankylosing spondylitis.<sup>18</sup> However, further work is necessary to evaluate the complete effect of simhanada guggulu in ankylosing spondylitis.

### **Lung function**

Bronchial asthma is a lung condition in which the airways become narrow, and breathing becomes difficult. A study was done by Byadgi et al. in 2008 to evaluate the effect of simhanada guggulu on bronchial asthma.<sup>19</sup> The results concluded the potential use of simhanada guggulu in the management of asthma. However, more research is required to prove the efficacy of simhanada guggulu in managing asthma.

### **Anti-inflammatory agent**

Panda et al. in 2011, conducted a study to evaluate the anti-inflammatory activity of simhanada guggulu in rats.<sup>20</sup> The study results concluded that simhanada guggulu might have anti-inflammatory properties. However, studies are needed to evaluate the efficacy of simhanada guggulu in humans.

### **Diabetes**

A study done by Sharma et al. in 2015 on herbal medicine showed that amalaki (*Emblica officinalis*), a constituent of simhanada guggulu, may have an anti-diabetic property. Therefore, simhanada guggulu may be used as an anti-diabetic agent. However, more work is required to

prove the effect of simhanada guggulu in diabetes.<sup>21</sup>

### **OTHER PRACTICABLE USES OF SIMHANADA GUGGULU**

- Simhanada guggulu contains *Emblica officinalis*, which may be used for eyesight disorders.
- It may also be used as an anti-microbial agent.
- Simhanada guggulu also contains *Commiphora mukul*, which has potential uses for managing obesity.
- It may be used in the management of gastric disorders like acidity and peptic ulcers.

### **PROBABLE MODE OF ACTION OF DRUGS**

The essentials of Ayurvedic pharmacology are skilled to give a superior logical lead in method of medication activity. Pharmacology of Ayurveda depends on the hypothesis of Rasa, Guna, Virya, Vipaka and Prabhava which were the most straightforward boundaries in those days to learn the activity of the medication. Ayurvedic classics provides a clear therapeutic guidance for the treatment of Amavata. Normally, langhana, swedana, Tikta-katu-Deepana drugs, virechana etc. were found. The treatment is based on Ama pachana and amelioration of vitiated vata. Simhanada Guggulu is having Tikta - Kshaya rasa, laghu ushna guna, ushna virya, katu vipaka. As the current infection

is brought into the world out from the vitiated vata and kapha. Primary pathology in the illness is Ama nirmitti. Simhanada Guggulu had positive activity on vitiated vata and kapha dosha. The vast majority of the medications utilized in this detailing were Katu, Tikta in Rasa and Ushna Virya which have the opposing properties to that of Ama and Kapha which are the main causative variables in this illness. Because of this Katu rasa and Ushna Virya prompts increment stomach related power which additionally processes Àmarasa. In view of Tikshna, Ushna and Ruksha Guna assuage the vitiated Vata and Kapha and do not permit the Ama to remain at the site of pathogenesis and to make Srotorodha. Most of the drugs in the Simhanada Guggulu have Agnideepaka and pachana property, which play important role in Amapachana of Rasa Dhatu and helps to reduce the formation of Amarasa.

Most of the drug in the formulation had Amanashana, Yogvahi and adhered Dosha from the Dushita Srotas. Due to formation of Amarasa, a large portion of the medication in the detailing had Amanashana, Yogvahi and Vatanulomana. Tikta Rasa eliminate stuck Dosha from the Dushita Srotas. Because of Srotovivronoti, Agnideepana and Pachana property of Katu Rasa helps in Strotashodhana and do not permit the Ama to stick at the site of pathogenesis.

### **DISCUSSION**

Madhavakara was the first to give the detailed description of Amavata.

Numerous clinical cases would have been found in that period making the author to deal it separately. He has devoted a separate chapter in Madhava Nidana to narrate its aetio-pathology, clinical features and types according to Dosha Pradhanya and Sadhya Asadhyata of Amavata. Amavata is one of the most challenging joint disorders to the human being, because of its chronic & life-threatening nature. Change in life style like sedentary & stressful situation and fast-food dietetic pattern are responsible for the manifestation of disease. In Allopathy the treatment therapy for Rheumatoid Arthritis is experiential and mainly emphasizes on relief of pain along with management of inflammatory condition, enhancing working capacity of the joints and preventing deformity. Therefore, there is a necessity for the development of newer and more potent Anti-Inflammatory drugs with lesser side effects. After extensive literature review, 15 references of Simhanada Guggulu were found. Evaluation of these references, indicates that main ingredients are same as quoted in A.F.I, some variations appear in the quantity of drug.

Simhanada Guggulu is a combination of drugs which are mostly Katu, Tikta, Kasaya in Rasa, Laghu, Ruksha Tikhsna, Sukshma in Guna, Ushna in Virya, Madhura in Vipaka and Kaphavatahara Tridosahara in action. This combination is also Vibandhahara as it contains Eranda Taila and is Vedanahara due to Guggulu. Due to its Laghu-Ruksa Gunas and Katu-

Tikta Kashaya Rasa it could have palliated the Kapha and could have checked the production of Ama. The combination is Vatahara due to its Madhura Vipaka and Ushna Virya of Guggulu.

But on the other hand, Simhanada guggulu is in semisolid form, if prepared with actual classic reference. Due to palatability, it was generally not taken by many patients. Easy administration and fixed dosage form are the plus points of pills which are lacking in this semisolid Simhanada guggulu. Thus, due to more quantity of eranda tail and Guggulu it offers better results. In market we get pill form Simhanada Guggulu which didn't provide the benefits of Eranda tail so delaying in relief. So to give better results to patients we have to prepare the medicine as mentioned in our classics or if we modify the SOP according to feasibility it will not give proper results in recommended dose of each ingredient in the formulation with anupana or sahapana.

## CONCLUSION

Simhanada Guggulu is a Complementary medicine which are in practice for eons for Rheumatoid Arthritis due to its known anti-inflammatory and anodyne action. This incredulous herbal formulation coupled with properties, like Deepan, Pachan, Vatanulomana and Vedanahara becomes a promising therapy.

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