



TRADITIONAL USES OF HERBAL MEDICINAL PLANTS OF RAJASHTHAN: GUGGAL

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ABSTRACT

Guggal (*Commiphora wightii* (Arn.) Bhandari) (Burseraceae) is distributed in tropical and sub-tropical regions. It is small shrub with sessile leaves. Three sterols gugglusterols I, II and III, two sterones and two dieterpines are found. Gum and bark is useful to treat obesity, arthritis, indolent and ulcers. Guggul is used in various ways to cure different ailments like gonorrhoea, pyorrhoea, ulcers, piles, asthma, cough, hernia and leucoderma.

Keywords : Guggal (*Commiphora wightii* (Arn.), Bhandari, obesity, traditional uses

INTRODUCTION

Plants have been one of the important source of medicines ever since the dawn of human civilization. In spite of tremendous developments in the field of Allopathy during the 20th century, plants still remain one of the major source of drugs in modern as well as traditional systems of medicine throughout the world. Approximately one-third of all pharmaceuticals are of plant origin, wherein fungi and bacteria are also included. Over 60% of all pharmaceuticals are plant-based.

Chemically, depending on their active principles, plants may have alkaloids, glycosides, steroids or other groups of compounds which may have marked pharmaceutical actions such as anticancerous, antimalarial, antihelmintic or antidysentric, etc. Many of essential oils, dyes, lattices and even tannins and vegetable oils are also widely used as medicines.

WHO has prepared an inventory of medicinal plants numbering over 20,000 species. The world population is expected to touch 750 crores soon and this will further escalate the health budget especially those of the developing countries.

The developing countries spend roughly 40-50% of their total health budget on drugs and as a strategy to reduce the financial burden on developing countries, WHO encourages, recommends and provides for the inclusion of herbal medicines in natural health care programme. Such herbal medicines are easily available at a cheaper price for the common man. They are time tested and considered safer than some of the modern synthetic drugs. Studies on medicinal plants have been conducted by (Sharma and Kumar 2001a, 2001b, Sharma and Kumar 2011, 2012).

Guggul (Commiphora wightii (Arn.) Bhandari)

Commiphora wightii or *Commiphora mukul* Engl. (Burseraceae) is an important ancient medicinal plant. Besides this, *Commiphora agallocha* Engler. and *Commiphora stocksiana* Engl. have been reported to have medicinal value.

Guggul is shrubby, 1.2-1.8 m high; young parts glandular-pubescent, branches knotty and crooked. It is distributed in Bellary, Mysore, Deccan, Khandesh, and Rajasthan desert.

It is known by various names in different languages.

Common Name: *Guggul*

Hindi : Gogil, Gugal, Guggul, Mukul, Ranghanturb

Sanskrit : Bhavabhishta, Bhutahara, Devadhupa, Deveshta, Dhurta, Divya, Durga, Guggalu, Jatala, Jatayu, Kalaniriyasa, Kaushika, Kumbha, Kumlihi, Kumbholu, Kumbholu-Khalaka, Kunti, Pavandvishta, Pura, Puta, Rakshoha, Sarvasaha, Shambhava, Shiva, Uddipta, Ulukhalaka, Usha, Vayughna.

Tamil : Gukkal, Gukkulu, Mai shakshi

Telugu : Gugul, Mabisaksh, Maisakshi

Marathi : Guggala, Gulag

Gujarati : Gugal, Gugali, Gugar, Guggul, Mukul, Ranghanturb.

Bengali : Gugal, Guggul, Mukul, Ranghanturb.

- Santhal tribe uses the bark of Guggul for the treatment of ulcers.
- The wood and bark of Guggul are used as toothbrush in the Eastern part of the country.
- Guggul resin is used for the treatment of asthma, boils and headache in northern India (Jain, 1997) (Plate-4-II).
- Fumigation and inhalation of Guggul resin is used in Ajmer division for nasal catarrh and

Synonymous: Guggulu, Kalaniriyasa, Mahaisaka, Palankasa, Jatayu, Kausika, dhurttta, devadhupa, siva and pura.

Taste : Bitter

Attributes : Visada (Non slimy), Suksma (subtle) and picchila (slimy)

Potency : Hot

Action : Dipana (digestive stimulant)

Specific action: Sara (laxative), vrsya (aphrodisiac), svarya (promoter of voice), rasayana (rejuvenating), balya (promoter of strength) and alleviator of Kapha and Vayu.

Therapeutic usage : Cures vrana (ulcer), apaci (cervical adenitis), medas (adiposity), meha

bronchitis (Mishra and Dixit, 1976 and Shah, 1982).

- Resin of the plant is used as mosquito repellent and its fumes as a cure of typhoid. In West Rajasthan, the bark and twig of Guggul are used as a cure of pyorrhoea and other tooth and gum troubles (Shekhawat and Anand, 1984).

Ayurveda : The gum of Guggul is of five kinds. It is bitter, hot, acrid, laxative, stomachic, aphrodisiac, alterative, tonic, anthelmintic, causes biliousness, heals fractures, ulcers, fistula, piles, removes 'Kapha', 'Vata', cures indigestion, urinary discharges, urinary concretions, leucoderma, tumours, inflammation, tuberculosis, removes bad discharge from the ear. The fruit cures abdominal troubles.

Yunani : The gum is bitter, acrid, resolvent, expectorant, aphrodisiac, enriches the blood, useful in muscular rheumatism, lung complaints, dyspepsia and piles. The gum is a demulcent, carminative, especially useful in nervous diseases, scrofulous affections, urinary disorders and skin diseases. It is applied locally as a paste in haemorrhoides, incipient abscesses and bad ulcers.

Charak Samhita and Sushruta Samhita : The gum is employed with other drugs in the treatment of snakebite and scorpion-sting (Kirtiker and Basu, 1935).

(obstinate urinary disorders including diabetes), asra (vitiated flood) vatasra (gout), kleda (sticky material in excess in the body), kustha (obstinate skin diseases including leprosy), amamaruta (rheumatism), pindika (pimples), grahni (tumour or adenitis), sophia (Oedema), arsas (piles), ganda (enlarged cervical glands) and krimi (Parasitic infestation). It heals the fractures of bones.

Fresh Guggulu is brmhana (nourishing) and aphrodisiac.

Old Guggulu is exceedingly lekha (depleting) (Dash, 1991).

The Ayurvedic medicines having *Commiphora wightii* as an important ingredient are:

1. **Amrita guggulu** : This medicine cures all the sixteen varieties of skin diseases called leprosy, malignant jaundice, urticaria, loss of appetite, fistula-in-ano, inflammation of the schneiderian membrane with loss of the sense of smell, catarrh in the nose, enlargement of the spleen and abdominal ailments. It is especially beneficial in tubercular leprosy. 2 to 4 vati are taken with warm water thrice a day.
 2. **Panchatikta ghrta-guggulu**: This medicine also cures skin diseases like leprosy and leucoderma.
 3. **Varadi guggulu** : It cures syphilis, vitiation of blood and malignant boils.
 4. **Saptavingcatika guggulu** : It cures fistula-in-ano, piles, asthma, cough, dropsy, hernia, elephantiasis of the legs, malignant boils, sinus, leucoderma, strangury, calculi, gonorrhoea.
 5. **Navakarshika guggulu** : It cures fistula-in-ano, piles, dropsical swellings and abdominal tumours.
 6. **Triphala guggulu** : The ingredients of Triphala guggulu are 3 mashas of the exudation of guggul duly pounded with ghee and the decoction measuring half a 'poa' of the triphala is consumed for alleviation of suppression, sloughs, filthy discharge and the foetid odour and pains of abscesses and sores.
- Some medicines/formulations having Guggul (*Commiphora wightii*) as one of the ingredients are –

S. No.	Medicine/formulation	Prescribed for/as
1.	Saptanga Guggulu	Cures all kinds of malignant boils, sinuses, enlargement of the glands of the neck and leucoderma.
2.	Cothodarari Lauha	Cures dropsical swellings, abdominal swellings, abdominal dropsy, chlorosis, anaemia, malignant jaundice, piles, fistula-in-ano, abdominal tumours.
3.	Lauha Rasayana	Cures excited wind and phlegm, leucoderma, gonorrhoea, fever, anaemia, chlorosis, fistula-in-ano, swoons and poisoning. It acts as an aphrodisiac and cures obesity.
4.	Chandraprabha Bati	Cures gonorrhoea, strangury calculus, and retention of urine and chlorosis. It increases strength and is an aphrodisiac and good tonic.
5.	Cilajatwadi Bati	Cures gonorrhoea.
6.	Mahamudgara Batika	Cures gonorrhoea, strangury, retention of urine, calculi, piles, abscesses, leucoderma, fistula-in-ano, chlorosis, anaemia and malignant jaundice.
7.	Cakramatrika Bati	Increases strength, improves the complexion and enkindles the digestive fire.
8.	Ushakadi Gana	Reduces calculus gravels, pain in discharging urine and abdominal tumours born of phlegm.
9.	Gulmacarddula Rasa	Cure enlargement of the spleen and liver, anaemia, epistaxis, dropsical swellings and abdominal tumours.
10.	Amavatari Batika	Cures acute rheumatism, nervous diseases, head-ache, bronchocele, goitre, hernia, abdominal tumours, enlarged spleen, abdominal dropsy, anaemia, chlorosis, intestinal worms, leprosy, piles, fistula-in-ano and tumours of the abdomen.
11.	Vrihat Singhanada-Guggulu	Cures acute rheumatism. It enkindles the digestive fire and imparts strength to the patient.
12.	Vatari guggulu	Cures acute rheumatism, pains in the waist, sciatica, lameness and abdominal dropsy.
13.	Vataraktantaka Rasa	Cures all types of tubercular leprosy and nervous disease.
14.	Langaladya Lauha	Cures tubercular leprosy causing sores all over the body.

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| 15. | Kaicora guggulu | Cures tubercular leprosy, leucoderma, boils, gonorrhoea, diabetes, carbuncle, cough, abdominal tumours, chlorosis and indigestion. |
| 16. | Rasabhra guggulu | Fistula-in-ano, indigestion, enlargement of the lymphatic glands, eczema, itches, psoriasis, herpes, warts, leprosy, leucoderma, anaemia and intestinal worms. |
| 17. | Vatari Rasa | Cures nervous diseases |
| 18. | Plihanaka Rasa | Cures enlarged spleen, dropsical swellings, asthma, cough, consumption, indigestion and epistaxis. |
| 19. | Dashanga guggulu | Alterative, tonic and stimulant, cures obesity, nervous and rheumatic affections |
| 20. | Pakshavadna guggulu | Alterative and tonic, cures paraplegia and hemiplegia. |
| 21. | Gokshuradi guggulu | Demulcent, diuretic, alterative and tonic, useful in albuminaria, phosphaturia, euresis, dysuria, calculi, gonorrhoea and rheumatism. |
| 22. | Chandraprabha gutika | Cures albuminaria, phosphaturia, gout, gonorrhoea, calculi renal, chicken pox, herpes and lumbago |
| 23. | Trayodashang guggulu | Cures enlargement of prostate gland, asthma, cystitis, incontinence of urine, helpful in internal neuralgic affections. |
| 24. | Kanchnar guggulu | Alterative and tonic, cures fistula, scrofula, sinus, leprosy and ulcers. |
| 25. | Kishor guggulu | Ulcers, boils, chronic otorrhoea, fistula, sciatica and rheumatism |
| 26. | Gonorrhoea pills | Gonorrhoea, gleet, bronchitis and laryngitis. |
| 27. | Swayambhuva guggulu | Alterative and tonic, helpful in abscesses, boils, ulcers and fistula. |
| 28. | Yograj guggulu | Synovitis, paraplegia, sciatica, hemiplegia and other nervous affections. |
| 29. | Rasna guggulu | Sciatica and paraplegia |
| 30. | Loha guggulu | General debility, sexual debility, anaemia, chlorosis, heart affections, scrofula and debility of old age. |
| 31. | Maharasna Kadha No. 1 | Rheumatism, intestinal obstructions, severe pain in the joints and all sorts of nervous diseases. |
| 32. | Visrapa Kadha | Pain in the joints, oedema of the face, burning sensation in the stomach and skin diseases. |
| 33. | Agasti guggulu | Flatulence, sciatica, stomatitis, sloughing, ulcers, dysentery, worms and bleeding piles |
| 34. | Medoroga gutika | Obesity, thirst, general debility and excessive perspiration. |
| 35. | Sinhan and guggul | Bleeding piles, gout, neuralgia, sciatica, loss of appetite and renal diseases. |
| 36. | Yograj Gutika | Enlargement of liver and spleen |
| 37. | Gandamala Kandan rasa | Mumps, scrofula and tuberculosis |
| 38. | Sooj Lep | Dropsy, erysipelas and ulcers (Pathak, 1970; Anonymous, 1986; Dash and Kashyap, 1992 and Chitale, 1997). |

Besides the above medicines, Ayurvedic practitioners also suggest various other classical preparations of Guggul.

1. Gum of Guggul is purified by boiling it in the decoction of triphala or cow's urine. It is given in a dose of 10 to 20 grain with a cup of warm milk for the treatment of obesity.

2. In psoriasis (skin disorder with silvery-gray scaling papules involving papulo-squamous of the skin) Pancha tikta ghrta guggulu is given in a dose of two teaspoon full twice daily with warm milk or water.
3. Decoction of Guduchi (*Tinospora cordifolia*) 14 to 28 ml is given with Suddha Guggulu 2

- to 4 gm thrice a day for gout (acute pain and swellings of joints).
4. 1-3 g Guggul is given thrice a day with warm water in arthritis.
 5. Guggul is given in stomach troubles.
 6. Guggul is given with cow's urine or decoction of Punarnava (*Boerhaavia diffusa* Linn.) for treatment of oedema.
 7. Purified Silajatu (exudate from rock), Guggul and dried ginger is given thrice a day for curing of abscesses and tumours.
 8. Intake of haritaki (*Terminalia arjuna* (Roxb.) Wt and Arn.), Silajatu (exudate from rock) and Guggul with cow's urine twice daily is useful for rheumatoid arthritis.
 9. Decoction of Guggul and triphala is useful in wounds, skin diseases, sinus and fistula-in-ano.
 10. Fumigation of Guggul is a good remedy for foetid ear.
 11. Intake of Guggul with cow's urine destroys chronic scrotal enlargement.
 12. Seeds of Palasa (*Butea frondosa* Koen ex. Roxb.), camphor (*Cinnamomum camphor* (Linn.) Presl) and Guggul mixed together with water are applied on affected parts of Guinea worm.
- Besides this, *Commiphora agallocha* Engler and *Commiphora stocksiana* Engl. are also employed throughout the world for medicinal purposes.

***Commiphora agallocha* Engl.**

Common Name	:	Indian Belledium
Sanskrit	:	Agaru
Tamil	:	Attam, Kukkula, Kungiliyam, Kungulu
Telugu	:	Agaru, Bodanki, Guggilamu, Mahisakshi
Uriya	:	Ogoru
Gujarati	:	Gugal
Bengali	:	Gugala

- The gum is useful in cough, asthma and pain in the chest.

***Commiphora stocksiana* Engl.**

Baluchistan	:	Bai, Bayi
Las Bela	:	Gugar
Marathi	:	Bayisagugul
Tamil	:	Malaikiluvai

- The gum obtained from this tree is used in the form of ointment for clearing and stimulating bad ulcer. It is a favourite application in sores, combined with sulphur, catechu and borex.
- In Las Bela, the gum is used as a cure for stomachache.

CONCLUSION

The herbal medicine suits to the social and cultural needs of the people and influence the patient's physical, mental and emotional states as well. The herbal drugs prepared with the traditional methods through slow grinding and mixing processes conserves all the natural substances within it in the

'naturally balanced form' without losing any essential component and maintains the activity and purity of the drug. The presence of several essential components in the 'naturally balanced state' is perhaps the very basis which accounts for the minimal side effects of herbal drugs. Traditional uses of herbal medicines are presented here.

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