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Medicinal Plant of the Indian Desert: Commiphora Wightii (Arnott) Bhand

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ABSTRACT: Commiphora wightii, a shrub of arid tracts of the Indian subcontinent, yields an oleo-gum-resin (known as 'Indian bdellium' or 'Guggul') from incisions on the stem and the main branches. Though recognised as an important drug in the ancient Indian system of medicine, only recently have clinical trials established the efficacy of Guggul for the treatment of arthritis, rheumatism, hypercholesterolemia and hyperlipidemia. This has engendered much research on its anatomy, the standardisation of cultivation practices, modes of tapping and isolation, and the identification of chemical constituents of the gum. Further investigation is, however, required for the design of a plant ideotype with desirable characters, the development of a suitable gum exudent, and the standardisation of felling cycles in plantations.

KEYWORDS: guggul, gum, plantations, medicine, cultivation, development

I. INTRODUCTION

Commiphora wightii (Arnott) Bhand. is an important medicinal plant of the herbal heritage of India (Chakravarty, 1975). It provides 'Guggul', an oleo-gum-resin mentioned by Sushruta 3000 years ago as being a valuable drug in Ayurveda (Joshi, 1980). C. wightii is commonly known as 'Indian bdellium', or 'Guggul', in India. It is generally distributed in arid regions and is particularly widespread on the Indian side of the Thar desert. Its distribution extends into Pakistan where, too, the plant is recognised as a source of an essential oil (Khan, 1958) and has been recommended for large-scale cultivation in the arid regions (Chaudhari, 1959). It has been listed (Gupta, Gaur et al., 1965) as an important medicinal plant: details of oleo-gum-resin production, marketing and economics have been provided by Atal,[1,2,3] Gupta et al. (1975). Much work has recently been published on the distribution, biology and husbandry of C. wightii, and the chemistry of its gum-resin, and clinical trials have gained momentum. This paper attempts to present a synoptic coverage of the literature. Previously known as Commiphora mukul (Hook. ex. Stocks) Engl. or Balsamodendron mukul Hook. ex. Stocks (1849), the plant was renamed C. roxburghii by Santapau in 1962 (Bhandari, 1964). Later, Bhandari (1964) reported that the specific name wightii was published in 1839, that is, prior to roxburghii in 1848; hence, Commiphora wightii (Arnott) Band, is the correct and valid name. The plant is known as 'Indian bdellium' in English, as Mahisaksha, Guggulu, Amish, Pilanksha and Pur in Sanskrit

Purseglove (1975) cited Africa and Asia as the centre of origin of Commiphora spp. The genus Commiphora is widely distributed in tropical regions of Africa, Madagascar and Asia (Fig. 1). It extends to Australia and the Pacific islands (Good, 1974). Occurrence of Commiphora spp. in south-west Africa has been confirmed by Van der Walt (1974, 1975) and Lisowsky, Malaisse et al. (1972) recorded different species of Commiphora from Zaire. Petiole anatomy (Van der Walt & Van der Schijff, 1973)

Hills and piedmonts are the natural habitat of C. wightii, which occurs not only in extremely arid places such as Jaisalmer (100 mm average annual rainfall) but also in sub-humid regions such as Ajmer and Faina (400 and 500 mm average annual rainfall respectively). It is a species associated with tropical Euphorbia Scrub (Type DS-2) which is a major sub-type of the Desert Thorn Forest (Type C-1) of India. Efforts to raise Commiphora wightii from seed have, by and large, been a failure (Atal, Gupta et al., 1975). Attempts have, therefore, been made to standardise the size of stem cuttings that root effectively (Puri & Kaul, 1972). In an experiment involving two lengths (150 and 300 mm) and three different diameters (5, 10 and 15 mm), it was found that cuttings 300 mm long and 15 mm in diameter resulted in maximum sprouting (69·53 per cent in 8 days) and in early rooting. Gum is tapped from December to February (Bhatt & Dixit, 1974). Plants over five years old with a basal diameter more than 7·5 cm are suitable[4,5,6]. Circular incisions, 1·5 cm deep, are made on the main branches and stem at a uniform distance 30 cm apart and at an angle of 60° with the stem (Atal, Gupta et al., 1975). The yellow, fragrant latex oozes out through the incisions and slowly solidifies into vermicular or stalactitic pieces . About 200–500 g dry Guggul is usually obtained from a plant in one season. Three grades of Guggul are available. The best consists of translucent Guggul, free from bark and sand. Dull coloured Guggul, mixed with bark and sand, constitutes the second grade. The most inferior grade is collected from the ground and contains much extraneous matter

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Guggul gum is a mixture of 61 per cent resin and 29·3 per cent gum (Dutt, Ghosh et al., 1942), in addition to 6·1 per cent water, 0·6 per cent volatile oil and 3·2 per cent foreign matter (Anon., 1950). Experiments with various animals have demonstrated the efficacy of gum Guggul in the treatment of arthritis (Chaturvedi & Singh, 1965), hyperlipidemia and thrombosis (Tripathi, Sastri, et al., 1968); atherosclerosis (Khanna, Aggrawal et al., 1969) and hypocholesterol conditions (Satyavati, Dwarkanath et al., 1969; Malhotra, Aggrawal et al., 1970). The development of a desirable plant ideotype (Donald, 1968) with following characters may be explored:(a)An upright habit with straight branches to facilitate easier extraction of the gum; (b) gum resin canals with wider lumen; (c) a high rate of synthesis and transport of the gum from the site of synthesis to the storage compartments; (d) successful rooting of cuttings; (e) better regeneration and coppicing potential; (f) responsiveness to appropriately developed gum exudents[7,8,9]

II. DISCUSSION

Commiphora wightii, with common names Indian bdellium-tree,[3] gugal,[4] guggal, guggul,[3] gugul,[3] or mukul myrrh tree, is a flowering plant in the family Burseraceae, which produces a fragrant resin called gugal, guggul or gugul, that is used in incense and vedic medicine (or ayurveda). The species is native to southern Pakistan and western India. It prefers arid and semi-arid climates and is tolerant of poor soil.

Commiphora wightii grows as a shrub or small tree, reaching a maximum height of 4 m (13 ft), with thin papery bark.[4] The branches are thorny. The leaves are simple or trifoliate, the leaflets ovate, 1–5 cm (0.39–1.97 in) long, 0.5–2.5 cm (0.20–0.98 in) broad, and irregularly toothed. It is gynodioecious, with some plants bearing bisexual and male flowers, and others with female flowers. The individual flowers are red to pink, with four small petals. The small round fruit are red when ripe.

Cultivation and uses

Commiphora wightii is sought for its gummy resin, which is harvested from the plant's bark through the process of tapping. In India and Pakistan, guggul is cultivated commercially. The resin of C. wightii, known as gum guggulu, has a fragrance similar to that of myrrh and is commonly used in incense and perfumes. It is the same product that was known in Hebrew, ancient Greek and Latin sources as bdellium.

Guggul is used in Ayurveda remedies and it is mentioned in Ayurvedic texts dating back to 600 BC.[5] It is often sold as a herbal supplement.

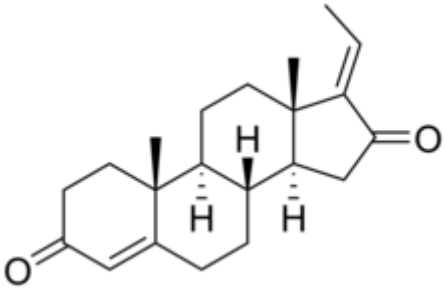
The gum can be purchased in a loosely packed form called dhoop, an incense from India, which is burned over hot coals. This produces a fragrant, dense smoke.[6] It is also sold in the form of incense sticks and dhoop cones which can be burned directly.

Chemical composition

Over a hundred[10,11,12] metabolites of various chemical compositions were reported from the leaves, stem, latex, root and fruit samples. High concentrations of quinic acid and myo-inositol were found in fruits and leaves.[7]

Traditional medicinal use

Commiphora wightii has been a key component in ancient Indian Ayurvedic system of medicine.



Chemical structure of guggulsterone, a constituent of gum guggul

The extract of gum guggul, called gugulipid, guggulipid, or guglipid, has been used in Unani and Ayurvedic medicine, for nearly 3,000 years in India.[8][9] One chemical ingredient in the extract is the steroid guggulsterone,[10] which acts as an antagonist of the farnesoid X receptor, once believed to result in decreased cholesterol synthesis in the liver.

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However, several studies have been published that indicate no overall reduction in total cholesterol occurs using various dosages of guggulsterone and levels of low-density lipoprotein ("bad cholesterol") increased in many people.[11][12]

Endangerment and rescue

Save Guggul Movement' in Rajasthan, India

Because of its use in traditional medicine, C. wightii has been overharvested, and has become so scarce in its two habitats in India—Gujarat and Rajasthan—that the World Conservation Union (IUCN) has enlisted it in its IUCN Red List of threatened species.[1] Several efforts are in place to address this situation. India's National Medicinal Plants Board launched a project in Kutch District to cultivate 500 to 800 hectares (1,200 to 2,000 acres) of guggal,[13] while a grass-roots conservation movement, led by IUCN associate Vineet Soni, has been started to educate guggal growers and harvesters in safe, sustainable harvesting methods

III. RESULTS

The genus of the myrrhs, Commiphora, is the most species-rich genus of flowering plants in the frankincense and myrrh family, Burseraceae. The genus contains approximately 190 species of shrubs and trees, which are distributed throughout the (sub-) tropical regions of Africa, the western Indian Ocean islands, the Arabian Peninsula, India, and South America.[2][3][1] The genus is drought-tolerant and common throughout the xerophytic scrub, seasonally dry tropical forests, and woodlands of these regions[13,14,15].

The common name myrrh refers to several species of the genus, from which aromatic resins are derived for various fragrance and medicinal uses by humans.

Description

Leaves in Commiphora are pinnately compound (or very rarely unifoliolate). Many species are armed with spines. Bark is often exfoliating, peeling in thin sheets to reveal colorful, sometimes photosynthetic, bark below. Stems are frequently succulent, especially in species native to drier environments. Flowers are typically dioecious (subdioecious) and fruits are drupes, usually with a 2-locular ovary (one is abortive).[4] In response to wounding, the stems of many species will exude aromatic resins.

Ecology and biogeography

Commiphora can serve as a model genus for understanding plant evolution in the drier regions of the Old World tropics, particularly in eastern continental Africa and Madagascar, where diversity in the genus is concentrated. The closely related sister genus to Commiphora, Bursera, has been used as a model genus to study patterns of evolution in the New World seasonally dry tropical forests.[5]

Use by humans

Products from many species of Commiphora have been used for various purposes, sometimes as timber, building material, and natural fencing, but more often valued for the aromatic resins produced by several members of the genus. "Myrrh", the common name for these dried resins, is fragrant and has been used both as fragrance and for medicinal purposes (e.g., Balsam of Mecca, C. gileadensis).[6] Use of myrrh resin is frequent and pronounced throughout historical texts of cultural significance, including the Bible.

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Systematics and taxonomy
Recent studies using DNA sequence data have confirmed the monophyly of Commiphora;[3][7] however, this data suggests that previous classification of the genus into sections does not reflect monophyletic interspecific relationships.
Guggulu resin (Commiphora) is prized in Ayurveda for its deeply penetrating action and unique ability to scrape away naturally accumulating toxins from the body channels.

Guggulu's powerful detoxifying and rejuvenating qualities can enhance the benefits of other herbs when used in combination, and as such it is the basis for an entire class of traditional Ayurvedic formulas known as guggulus. Guggul is the common name for the flowering mukul myrrh tree. It is a small, thorny tree that is most commonly found in the arid climates of India, in states such as Rajasthan and Gujarat.[1, 2]
Guggul also refers to the resinous substance formed from the sap of the guggul tree.
Renowned for its cleansing and rejuvenating properties, this myrrh resin has been used in Ayurvedic medicine for over two thousand[12,13,14] years.3

Guggul is known by the Sanskrit name “guggulu,” which means, “protects from disease”4 and because Banyan tends to offer herbs according to their Sanskrit names, guggul is offered as guggulu.

There are many varieties of guggulu—each with different uses—determined in part by the color and age of the resinous myrrh gum.5 It is said that the potency of guggul lasts up to 20 years

In general, guggulu has an affinity for all of the tissues in the body as well as the circulatory, digestive, nervous, and respiratory systems.[7] Like other resinous substances, such as shiljit and boswellia, guggul is known for its powerful detoxifying and rejuvenating qualities, which give it a number of beneficial attributes.

- Promotes detoxification and rejuvenation: With an ability to scrape away accumulated toxins from the body's channels, guggulu is often used when detoxification is desired. At the same time, it helps to rejuvenate healthy tissues.
- Helps maintain healthy cholesterol levels already within the normal range: Guggul has a remarkable ability to support balanced cholesterol levels. In addition, guggul promotes supple arteries and tonifies the heart.[8]
- Supports healthy digestion: Thanks to its stimulating and heating nature, guggulu helps to kindle the digestive fire and promote the body's natural digestive capacity.[9]
- Promotes healthy weight management: Guggulu supports healthy weight by working to remove accumulated natural toxins and excessive build-up of tissue. It also assists with the digestion of oils and fats, thereby supporting weight management in a number of ways

Supports comfortable movement of the joints: Guggul's scraping and detoxifying qualities act to clear toxins from the joints that can lead to discomfort. It simultaneously lubricates and rejuvenates the tissues within and around the joints, helping to promote comfortable movement within these delicate spaces.

Guggulu in Ayurveda
Guggul is a very important herb in the Ayurvedic tradition. From an Ayurvedic perspective, it helps to balance all three doshas of vata , pitta , and kapha , though it is especially renowned for alleviating vata aggravations.[12]

In Ayurveda, different parts of plants are seen to work on different tissues in the body. Since guggul is made from the sap of the mukul myrrh tree, it has a strong connection with our own “sap,” or blood, known in Ayurveda as rakta dhatu .[13]

Guggulu also has an affinity with meda dhatu , the fat or adipose tissue. Guggul helps to clear excess unhealthy fat from the system with its pungent, bitter, and astringent tastes, its heating energy, and its pungent post-digestive effect.[14]
Because of its benefits for the joints, guggul also helps to bring balance to the musculoskeletal system, associated with asthi dhatu and mamsa dhatu[10,11,12] in Ayurvedic terms.

Because of guggulu's subtle and penetrating qualities, it is considered a yogavahi, meaning that it is often employed specifically to carry other substances deep into the tissues.[15] The qualities of the other herbs help direct where exactly the guggulu travels in the body, and its combination with other herbs actually lends direction to its powerful detoxifying and rejuvenating qualities.

How to Take Guggul

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Internal Use of Guggul

There are several ways to take guggulu supplements internally, either on its own or in combination with other herbs. Banyan Botanicals offers plain guggul in a powdered form and most of its traditional guggulu formulas in both powder and tablet forms.

Guggulu Powder

Guggulu powderoffers the full experience of tasting the herb and also provides the most economical option for purchasing guggul. Guggul powder can be taken with water, milk, ghee , honey or another anupan , or carrier substance. Anupans act as a medium for delivering the herb to its intended destination and can also enhance its effect.

Taking Guggulu in a Blend

Among Banyan's selection of herbal tablets, you will find a few blends that provide a convenient way to take guggul in combination with other herbs. These are ideal for those who are frequently traveling or on the go, as well as those who find the taste of guggulu a deterrent to taking it.

Aside from our many traditional guggulu formulas, guggulu can also be found in Joint Support, Women's Natural Transition, and Heart Formula. These blends are gentle enough for daily use.

External Use of Guggul

Here are a few ways to use guggulu externally:

In a balm: You can find this herb in Banyan's Joint Balm, which pairs perfectly with Joint Support tablets, as well as Trim Balm, designed to support healthy circulation, lymphatic flow, and weight management.

As a Paste: A paste of guggul can be applied to the exterior of the body to promote healthy skin, freedom of movement in the joints, and detoxification of the tissues.[16]

For Gargling: Guggul can be gargled or held in the mouth and then spit out to support healthy oral mucous membranes, teeth, and gums.[17]

Traditional Guggulu Supplements Available at Banyan Botanicals

Because guggulu works so successfully in combination with other herbs, it is rarely taken by itself. In fact, an entire class of unique formulations has been built around the use of guggulu.[18]

Banyan Botanicals carries several of these traditional guggulu supplements, known as guggulus. Potent and effective, these compounds are made with purified guggulu and a synergistic combination of other herbs.

Kanchanar Guggulu

Kanchanar guggulu benefits imbalances caused by deep-seated kapha dosha. Traditionally, this combination is considered particularly supportive of the thyroid gland and the lymphatic system.

Kanchanar is a very astringent herb that helps to clear the moist, stagnant qualities of kapha. When mixed with triphala , trikatu , and guggul, the combination is powerfully detoxifying and removes excess kapha from the tissues.

Future accumulation of kapha is also minimized by this formula because it kindles agni (the digestive fire) and promotes healthy elimination.

Yogaraj Guggulu

This synergistic combination of herbs is particularly adept at clearing excess vata from the body, especially when it is lodged in the musculoskeletal system. It is powerfully detoxifying and rejuvenating and it has a special affinity for the joints, muscles, and nerves.

Yogaraj guggulu benefits overall health and mobility by scraping and eliminating natural toxins from the joints and muscle tissues as it rejuvenates and strengthens the skeletal and neuromuscular systems.

Kaishore Guggulu

This preparation is especially balancing for pitta, particularly when it is disturbing the muscles and joints. Its main ingredients—guduchi, triphala, and trikatu—when combined with guggul, create a potent detoxifying and rejuvenating combination aimed primarily at removing deep-seated pitta from the tissues.

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Kaishore guggulu benefits the health and proper function of the joints, muscles, and connective tissue by nourishing and strengthening the musculoskeletal system as a whole.

Punarnavadi Guggulu

This formula is very useful for clearing excess kapha from the urinary system, kidneys, heart, and joints. Its main ingredients—punarnava, triphala, and trikatu—when combined with guggul, create a detoxifying and rejuvenating combination that supports the healthy elimination of liquids.

In this way, punarnavadi guggulu benefits the water element in the body and helps to release deep-seated kapha from the tissues. It also supports the lymph and blood and encourages healthy circulation and comfortable movement of the joints.

Triphala Guggulu

This classic Ayurvedic preparation combines the detoxifying and rejuvenating actions of triphala with the deeply penetrating and cleansing actions of guggul. It decongests the channels of the body while scraping away natural toxins held within the tissues.

Triphala guggulu benefits those seeking healthy methods of weight management because it kindles digestion, promotes healthy metabolism, and releases excess kapha from the system. It also minimizes the accumulation of toxins in the GI tract, blood, [1,5,6]and joints by supporting proper digestion and elimination.

Gokshuradi Guggulu

Gokshuradi guggulu benefits the overall health of the genitourinary tract and has traditionally been used to strengthen and tone the kidneys, bladder, urethra, and reproductive organs.

Its main ingredient, gokshura, is renowned for its rejuvenating action on the kidneys, the prostate, and the reproductive system. In combination with guggulu, triphala, and trikatu, this formula is very effective at detoxifying and balancing the urinary system.

Modern Research on Guggul

There has been significant scientific research evaluating the benefits of guggul, both on its own and as an ingredient in other herbal compounds.[19] Below are examples that illustrate some of these research findings:

- "Guggulipid: A Promising Multi-Purpose Herbal Medicinal Agent." PubMed Abstract. April 2019.[20]
- "Googling the Guggul (Commiphora and Boswellia) for Prevention of Chronic Diseases." PubMed Abstract. August 2018.[21]
- "The Guggul for Chronic Diseases: Ancient Medicine, Modern Targets." PubMed Abstract. November 2008.[22]
- "Therapeutic Effects of Guggul and its Constituent Guggulsterone: Cardiovascular Benefits." PubMed Abstract. 2007.[23]

Is Guggul Resin Safe?

Guggul is a powerful herb and should be used judiciously. It can increase pitta, especially in combination with a pitta-aggravating lifestyle.[24] Excessive use can lead to dryness of mouth, weight loss, impotency, skin disturbances, vertigo, and pathological changes in the liver or lungs.[25]

Contraindications

Guggul should be avoided when trying to become pregnant, during pregnancy, while breast-feeding, and in cases of excessive uterine bleeding, thyrotoxicosis, or acute kidney infection.[26, 27] Avoid if there are known allergies to Commiphora mukul or other members of the Burseraceae family.[28]

A number of interactions between guggul and prescription medications[6,7,8] have been observed; use caution when taking guggul in combination with hypo-glycemic medications, lipid-lowering agents, anti-coagulants, anti-platelets, anti-hypertensives, anti-diabetics, or estrogens.[29, 30] If you are taking prescription medication of any kind, it is always best to check with your doctor before introducing an herbal regimen.

The Growing and Harvesting of Banyan's Guggulu

Banyan's guggulu is cultivated in India in the regions of Rajasthan, Karnataka, and Chhattisghar.

It takes several years for the trees to mature to a point that the sap can be harvested without causing damage to the well-being of the tree. When it does come time to harvest, circular incisions are made on the main stem of the tree, not beyond the thickness of the bark.

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Guggul oozes out from these incisions as a pale yellow, aromatic fluid that quickly solidifies to form golden or reddish-brown tear-shaped resinous pieces. It is then manually scraped off with a knife.

The trees are tapped for resin from November through January, and a slow collection process continues through a nick on the bark of the tree every 10–15 days throughout the spring.

Sustainability of Guggulu
Guggul was once relatively abundant in many parts of India, and ironically, its success as an herbal remedy has led to its decline. It is very difficult to harvest the resinous sap without damaging the tree, leaving it susceptible to infection and decline.

In addition, the trees take several years to mature to the point where they can be safely harvested, as well as time to recover between harvest periods—without this recovery period, they are at risk of damage and even death.

Guggul has been grossly over-harvested in recent decades and wild populations of the tree have become endangered. For this reason, where and how guggul is harvested very directly impacts long-term sustainability. This is why we have gone through great lengths to develop relationships with small, private farms where sustainable farming can be ensured.

Major Interaction
Do not take this combination
•Estrogens interacts with GUGGUL
Guggul contains chemicals that might work like estrogen. Taking large amounts of guggul might increase the side effects of estrogen.
Moderate Interaction
Be cautious with this combination

•Birth control pills (Contraceptive drugs) interacts with GUGGUL
Some birth control pills contain estrogen. Guggul contains chemicals that might work like estrogen. Guggul might increase the side effects of birth control pills.

•Diltiazem (Cardizem, others) interacts with GUGGUL
Taking guggul can decrease how much diltiazem the body absorbs. Taking guggul along with diltiazem might decrease the effects of diltiazem.[10,12,13]

•Medications changed by the liver (Cytochrome P450 3A4 (CYP3A4) substrates) interacts with GUGGUL
Some medications are changed and broken down by the liver. Guggul might change how quickly the liver breaks down these medications. This could change the effects and side effects of these medications.

•Medications that slow blood clotting (Anticoagulant / Antiplatelet drugs) interacts with GUGGUL
Guggul might slow blood clotting. Taking guggul along with medications that also slow blood clotting might increase the risk of bruising and bleeding.

•Propranolol (Inderal) interacts with GUGGUL
Guggul might decrease how much propranolol the body absorbs. Taking guggul along with propranolol might decrease the effects of propranolol.

•Tamoxifen (Nolvadex) interacts with GUGGUL
Tamoxifen is used to help treat and prevent cancers that are affected by estrogen levels in the body. Guggul might affect estrogen levels in the body. By affecting estrogen in the body, guggul might decrease the effects of tamoxifen.

•Thyroid hormone interacts with GUGGUL
Guggul might increase thyroid hormone in the body. Taking guggul along with thyroid hormone therapy might increase the effects and side effects of thyroid hormones.

•Rosuvastatin (Crestor) interacts with GUGGUL
Guggul might increase how much rosuvastatin the body absorbs. Taking guggul along with rosuvastatin might increase the effects and side effects of rosuvastatin.

IV. CONCLUSION

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Guggul is made from the oily sap (gum resin) of the guggul tree (Commiphora wightii). The guggul tree grows in India, Bangladesh, and Pakistan.[9,10,11]

Guggul contains plant steroids that might affect cholesterol levels in the body. One of these substances might also reduce redness and swelling from acne.

People use guggul for acne, obesity, high cholesterol, and many other conditions, but there is no good scientific evidence to support these uses. There is also no good evidence to support using guggul for COVID-19.

Don't confuse guggul with Boswellia serrata or myrrh. These are not the same.
Possibly Ineffective for

•Obesity. Taking guggul by mouth doesn't seem to reduce body weight in overweight or obese people.
There is interest in using guggul for a number of other purposes, but there isn't enough reliable information to say whether it might be helpful.

Side Effects
When taken by mouth: Guggul is possibly safe when used for up to 24 weeks. It's usually well-tolerated, but some people may experience a bitter taste when ingested. Side effects might include stomach upset and headache.

When applied to the skin: There isn't enough reliable information to know if guggul is safe or what the side effects might be. Some people might develop an allergic rash.

Special Precautions and Warnings
When taken by mouth: Guggul is possibly safe when used for up to 24 weeks. It's usually well-tolerated, but some people may experience a bitter taste when ingested. Side effects might include stomach upset and headache.

When applied to the skin: There isn't enough reliable information to know if guggul is safe or what the side effects might be. Some people might develop an allergic rash.

Pregnancy: Guggul is likely unsafe when taken by mouth during pregnancy. It might stimulate the uterus and cause a miscarriage.

Breast-feeding: There isn't enough reliable information to know if guggul is safe to use when breast-feeding. Stay on the safe side and avoid use.[13,14,15]

Bleeding disorders: Guggul can slow blood clotting. This might cause bleeding or bruising in people with bleeding disorders.

Hormone-sensitive condition such as breast cancer, uterine cancer, ovarian cancer, endometriosis, or uterine fibroids: Guggul might act like estrogen in the body. If you have any condition that might be made worse by exposure to estrogen, do not use guggul.

Surgery: Guggul might increase the risk of bleeding during and after surgery. Stop using guggul at least 2 weeks before a scheduled surgery.

Underactive or overactive thyroid (hypothyroidism or hyperthyroidism): Guggul might interfere with treatment for these conditions. If you have a thyroid condition, speak with a healthcare provider before use.

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