



International Journal of Pharmacology and Clinical Research (IJPCR)

IJPCR | Volume 7 | Issue 3 | July - Sept - 2023
www.ijpcr.net

ISSN: 2521-2206

Review article

Pharmaceutics

An overview general aspects of *Chrozophora rottleri* – Suryavarti

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Published on: August 18, 2023

ABSTRACT

The blooming shrub *Chrozophora rottleri*, also referred to as "Indian chalk plant," is indigenous to India and other countries in South Asia. The ability of this plant to create a white, chalk-like substance on its leaves, stems, and fruits is just one example of its unusual traits. The powdery coating has long been employed in a variety of cultural rituals and may have medical and cosmetic uses as well. February through August are prime months for development to begin. It first arises in February, blooms in June and July, and then entirely vanishes in late August. The plant has a staggering array of chemical components as well as numerous pharmacological characteristics. The plant contains artificial chemical compounds such as alkaloids, sugar, glycosides, tannins, steroids, flavonoids, saponins, quercetin 3-o-rutinoside, acacetin 7-orutinoside, and apigenin 7-o-b-d-[6-(3,4- dihydroxybenzoyl)] - glucopyranoside. Xanthone glycosides and chromone glycoside were abundant in the leaf and basic parts of *C. rottleri*. The whole plant contains tannins, and oil extracted from the seeds was very lineolate-rich. Powdered leaves and roots are administered for the treatment of colds, coughs, and wound healing. *Chrozophora rottleri* is a plant that has antibacterial, antioxidant, antinecrotic, and antihelminthic characteristics. The study of the euphorbiaceae family, botanical description, taxonomical classification, phytochemical constituents, medicinal uses, pharmacological and therapeutic activity aspects of *Chrozophora rottleri* are covered in this abstract, which also highlights the plant's importance in regional customs and potential value for further investigation.

Keywords: *Chrozophora rottleri*, Euphorbiaceae, Taxonomical, Medicinal plant & uses.

INTRODUCTION

Chrozophora rottleri is one of the members of the 300 genus and 5000–7500 species strong Euphorbiaceae family, which is divided into seven genera. The natural behavior of *Chrozophora* plants increased awareness of the need to discover novel lead compounds for the treatment of various diseases^[1]. Monoecious or under shrubs are present. The genus is widely distributed throughout Asia, Africa, and Europe. It is an annual herb with silvery hairs that thrives in open waste areas naturally throughout India^[2]. A medical plant called *Chrozophora rottleri* is sometimes referred to as *Croton rottleri* Geiseler and *Chrozophora plicata* var. *rottleri* (Geiseler). In Sanskrit, it is generally referred to as Suryavarti. It is a herbal plant with a variety of medicinal effects. In India, stem powder is used to cure jaundice in Sudan, while in Nepal, the leafy parts of the plant are used to treat colds and coughs. In order to cure skin conditions

including sunburn and sunstroke, leaf powder is used. Leucoderma is treated using leaves. It is used in Ayurveda as a purgative, depurative, emetic, and cathartic. Concentrate of leaf exhibits phytotoxic effects on rice, wheat, and mustard as well as helminthic properties that are adverse to *Pheritima posthuma* (Indian Earthworm). Laxatives and purgatives are made from seeds. The strongest suppression of both Gram positive and Gram negative bacteria is demonstrated by plant extraction with methanol^[3]. Our ancestors have relied on the herbal remedy for at least 5000 years as a kind of treatment over the years^[4]. In some ways, the rise of allopathic or modern medicine has reduced the importance of medicinal plants in favor of synthetic medications. Even today, a lot of newly discovered drugs have their roots in indigenous populations' use of medicinal plants^[5]. The World Health Organization (WHO) estimates that due to their low risk of side effects and affordability, roughly 80% of the world's population relies on natural products for their health^[6].

Ayurvedic medications saved countless lives before modern synthetic medicine reached the general public, and the use of products for therapeutic purposes has a long history in Indian medicine dating back to the Vedic Age. Additionally, there is a persistent market demand for "natural" and/or "preservative-free" cosmetics and food that are microbiologically safe^[7].

More than 10,000 medicinal plants are employed in traditional medicine in India, of which 1800 are utilized in Ayurveda, 4700 in traditional medicine, 1100 in the Siddha medicinal system, 750 in unani medicine, 300 in homeopathy, 300 in Chinese medicine, and 100 in the allopathic system^[8]. In poor nations like India, infectious diseases make up a large share of health issues. Antibiotic resistance among

microorganisms has caused significant clinical issues in the management of infectious illnesses. Scientists are compelled to look for new antimicrobial compounds from a variety of sources, including medicinal plants, due to the limited availability and expensive cost of current generation antibiotics^[9]. The bulk of the species in this family are found in tropical America and the Indo-Malayan region, where they are mostly found in the tropics. Tropical Africa has a wide range, but they are not as common or as diversified as in these two other tropical regions. There are numerous species of Euphorbia, though, in non-tropical regions such the Mediterranean Basin, the Middle East, South Africa, and the Southern United States^[10].



Chrozophora rotleri[26]

The leaves have stipules and are alternating, rarely opposite. Most of them are simple, but when they are, they are always palmate and never pinnate. Stipules can occasionally be absent in succulent species or reduced to hairs, glands, or spines. Though occasionally an adrupe, the fruit is mostly a schizocarp. This family is home to a wide range of phytotoxins, primarily diterpeneesters, alkaloids, glycosides, and toxins of the ricin-type ^[11]. Many members of the Euphorbiaceae family of plants are planted for their decorative qualities, and certain species have shown promise in combating genital herpes (HSV-2)^[12]. The Euphorbiaceae family includes a variety of succulent and non-succulent plants, such as herbs, shrubs, trees, and several kinds of cacti. The milky juice that many of them contain is more or less

hazardous, especially for cold-blooded creatures. The fruits are typically three-celled capsules with a single seed inside each cell. Some species of these fruits can provide poisonous, irritating, and vesicular seed oils. Croton, which has over 700 species, and spurge or Euphorbia, which has about 1600 species, are the two largest genera in the spurge family^[13].

THE STUDY OF EUPHORBIACEAE FAMILY

The family spurge, Euphorbias, the name of the type genus of the family, is another term for them that is frequently used in English. The majority of spurges are plants, like Euphorbia paralias, but some, particularly in the tropics, are shrubs or trees, like Hevea brasiliensis. Due to convergent evolution,

some plants, including *Euphorbia canariensis*, are succulent and resemble cacti^[14]. In this family, the distribution is cosmopolitan. The Euphorbiaceae family includes many species in nontropical climates on all continents except Antarctica, but the tropics have the maximum species diversity. The leaves have stipules and are alternating, rarely opposite. Despite being mostly simple, they are always palmate and never pinnate when they are compound. Stipules can occasionally be absent in succulent plants or reduced to hairs, glands, or spines. Both monoecious and dioecious plants are possible. The male and female flowers of the unisexual, radially symmetrical flowers are typically found on the same plant. The structure of the blooms exhibits a great deal of variation, as one could anticipate from such a big family. One to ten or possibly more stamens make up the male reproductive organs. The superior ovaries of the female flowers, which are hypogynous, are present. The species A highly specialized type of pseudodanthium (a "false flower" made up of multiple actual blossoms) known as a cyathium is found in the tribe Euphorbieae, subtribe Euphorbiinae (*Euphorbia* and its relatives). This typically surrounds a ring of male flowers, each with a solitary stamen, and is shaped like a little cup. It is made of fused-together bracts and peripheral nectary glands. The female flower, which has a solitary pistil and branched stigmas, is present in the center of the cyathium. This entire arrangement has a flower-like appearance. Typically, the fruit is a schizocarp, but occasionally it is a drupe. The regma, a capsular fruit with three or more cells that explodes open explosively at maturity, spreading the tiny seeds, is a typical schizocarp. The family includes a wide range of phytotoxins, including diterpene esters, alkaloids, and cyanogenic glycosides (found, for example, in the root tubers of cassava). The extremely poisonous protein ricin, which binds to carbohydrates, is found in the seeds of the castor oil plant *Ricinus communis*. lacy latex is a characteristic of the Euphorbioideae and Crotonoideae subfamilies, and the main source of natural rubber is the latex of the rubber tree *Hevea brasiliensis*. In the Crotonoideae, the latex is harmless, but it is deadly in the Euphorbioideae.[Reference needed] The white mangrove, commonly known as blind-your-eye mangrove latex (*Excoecaria agallocha*), is a type of mangrove that releases a latex that can temporarily blind you if it comes into contact with your eyes. A laxative was made from spurge latex. The mysterious family Rafflesiaceae, which was just recently identified as a member of the order Malpighiales, was derived from inside the Euphorbiaceae, according to 21st-century

molecular analyses^[15]. Although self-incompatibility has been reported in the past, it appears that this was an error. Euphorbiaceae are monoecious and open pollinated, making them unusual cases of self-incompatibility. It is confirmed by Ehrenfeld 1976, Bouharmont 1962, Jennings 1963, George & Shifriss 1967, and herbaceous *Chamaesyce* to be missing or incomplete^[16].The Acalyphoideae, Crotonoideae, and Euphorbioideae subfamilies make up the majority of the 7,500 species that make up the fifth-largest family of flowering plants, Euphorbiaceae. The permineralized fruit *Euphorbiotheca deccanensis* from the Intertrappean Beds of India is one of the earliest fossils in the group, dated to the late Maastrichtian near the end of the Cretaceous, almost 66 million years ago^[17].

BOTANICAL DESCRIPTION

The plant is 40–60 cm tall overall. A cross-section of the root with a thickness of 6 to 7 mm and 6 to 8 minimized layers with springy and rectangularly shaped cells seems compressed on the exterior. The Xylem and vascular components are rounded, with larger vessels pointing inward and smaller vessels pointing outward. In the diagram, a cross-section of the stem with a thickness of 5 to 6 mm and a single layer of epidermis made up of tiny cubical cells is shown. 8 to 9 layers of collenchymatous cells are arranged in the cortex after the epidermis. The plants are annual spices, ascending or prostrate, with a main stem up to 50 cm long that is pubescent or occasionally scabrid. Alternate, 2-5 x 1-4 cm long, densely stellate-pubescent, petiole; 2 mm long, straight stipules. 1–5 cm long, leaf-opposed inflorescence. Pedicels are 1 mm long, sepals are c. 3 mm long, lanceolate, and stellate-pubescent; petals are pink, 3 mm long, elliptic-elongated, and lepidote-free; there are 15 stamens, linked into a section that is 4 mm tall; and anthers are 1 mm long on male blooms. female flowers The natural product has pedicels that are approximately 5 mm long and can extend up to 1.5 cm or more. The sepals are 1.5–2 mm long, straight, lanceolate, and stellate-pubescent, while the petals are either small or absent. A thickly stellate-pubescent ovary, styles that are 1-1.5 mm long, bifid almost from the base, stellate-pubescent outside, thickly papillose within, and seeds that are 3-3.5 x 2-2.5 mm in size^[18].

TAXONOMICAL CLASSIFICATION

Kingdom	Plantae
Clade	Angiosperm, Eudicots, Rosids
Order	Malpighiales
Family	Euphorbiaceae
Subfamily	Acalyphoideae
Tribe	Chrozophoreae
Subtribe	Chrozophorinae
Genus	Chrozophora Neck
Species	<i>Chrozophora rotterli</i>

PHYTOCHEMICAL CONSTITUENTS

Alkaloids, carbohydrates, glycosides, tannins, steroids, flavonoids, and saponins are some of the main phytochemicals found in *C. rotleri*, as well as quercetin 3-O-rutinoside (1, rutin), acacetin 7-O-rutinoside (2), and apigenin 7-O-b-d-[6-(3,4-dihydroxybenzoyl)]-glucopyranoside (chrozophorin, number five). According to reports, *Chrozophora rotleri*'s seed oil is high in linoleate, while its leaves and root are rich in chromone glycoside and xanthone glycoside. The entire plant contained tannin (Madane et al., 2013). Another investigation found that the chloroform extract of *C. rotleri* contained alkaloids, carbohydrates, glycosides, tannins, steroids, flavonoids, and saponins (Maharaj et al., 2013). According to research by Mothana et al., (2011) and Maharaj and Prabhakaran (2013), the weed *C. rotleri* had harmful allelopathic effects on the germination and growth of rice seedlings. Since systematic phytochemical studies have not been conducted on *Chrozophora rotleri*, important phytochemicals of its aerial parts have been examined in ethanol extracts in the current investigation using paper chromatography, mass spectroscopy, thin layer chromatography, HPLC, NMR, and mass spectroscopy techniques^[19].

MEDICINAL USE OF CHROZOPHORA ROTTLEI

Traditional medicine has employed *Chrozophora rotleri* to treat a number of illnesses. In Sudan, individuals apply powdered plant stems or the entire plant to wounds to speed up healing. The plant is also used to treat jaundice and purify blood in Saudi Arabia and India. In Senegal, the plant is not grazed by most stock, except on rare occasions by sheep and goats, as it induces vomiting and diarrhea, however camels graze it in Kenya. In Ethiopia, an infusion of the seeds and leaves is used as a laxative. In East Africa, carpets are dyed with the fruits' purplish blue dye. In Nepal, coughs and colds are treated with fruit juice (Khare, 2007). *Chrozophora rotleri* leaves are used as a depurative and are quite helpful in treating skin conditions (Priyanka et al., 2010). The seeds are thought to have purgative effects and are used as a cathartic, similar to Ghodtapde. According to Priyanka et al. (2010), this plant's leaves have substantial anti-helmintic properties against *Pheritima posthuma* (Indian Earthworm). *Chrozophora rotleri*'s aqueous extract has phytotoxic effects on rice, wheat, and mustard. The leaf extracts of *Chrozophora rotleri* showed greater inhibition of shoot, root, and radial elongation than the stem and root, according to an experimental investigation by Suparna and Tapaswi (1999)^[20].

PHARMACOLOGICAL & THERAPEUTIC ACTIVITY - ANTHELMINTIC ACTIVITY

Aqueous extracts of the leaves of *Cissus quadrangularis*, *Eclipta alba*, *Chrozophora rotleri*, and flowers of *Luffa acutangula* were examined for their potential as anthelmintics against *Pheritima posthuma* (Indian Earthworm). Patil, P. et al. In a bioassay, which required timing the worms' paralysis and death, various quantities of each plant's aqueous extract (25, 50, and 100 mg/ml) were investigated. The standard reference medication utilized was piperazine citrate (10 mg/ml). All three plants' aqueous extracts showed a significant amount of anthelmintic activity against *Pheritima*

posthuma, however the *Luffa acutangula* flowers showed the strongest anthelmintic activity in both parameters^[21].

ANTI-OXIDANT ACTIVITY

Narmada T and others, When *Chrozophora rotleri*'s repressive limit was evaluated, it revealed that its IC₅₀ value against these free-radical scavengers was considered as significantly larger (p 0.001) than the guidelines used, indicating that they have less cell reinforcement movement. We concluded that *Chrozophora rotleri* does not exhibit significant cell-reinforcement capability in in-vitro settings based on the available data. In-vitro cell reinforcement movement against typically experienced free radical scavengers in human pathology was not demonstrated in the current review. When compared to the combination of phytoconstituents seen in *Chrozophora rotleri*, individual phytoconstituents may have a stronger capacity for cell reinforcement. The screening of phytoconstituents will serve as the foundation for the research on drug disclosure^[22].

ANTI-FUNGAL ACTIVITY

Chrozophora rotleri, *Galingsoga parviflora*, and *Phyllanthus niruri* were tested in vitro against two phytopathogens, *Alternaria solani* and *Rhizoctonia solani*, according to Shrivastava D K et al. Three different solvents, namely ethanol, methanol, and hot water, were used to create leaf extracts. *Ageratum conyzoides* and *Chrozophora rotleri* extracts completely (100%) inhibited the mycelial growth of *A. solani* and *R. solani* at a concentration of 10%, which was comparable to the corresponding fungicide at 100 ppm. In contrast, *Ageratum conyzoides* extracts showed superior phytotoxic action, and the toxicity of the other four plants was discovered in a way consistent with their superior phytotoxic activity. Extracts made in ethanol were most successful in stopping the pathogens' mycelial development. *Phyllanthus niruri* > *chrozophora rotleri* > *galingsoga parviflora* > *blumea eriantha* ^[23].

ANTI-BACTERIAL ACTIVITY

J. R. Patel et al., By using the agar well distribution method, the bactericidal activity of *C. rotleri*, *Oxalis corniculata*, *Parthenium hysterophorus*, and *Solanum xanthocarpum* leaf concentrate was evaluated in-vitro against various clinical disconnects. Chloroform and methanol were used as two solvents to extract combinations from fresh leaves. The estimation of the zone of restriction does not completely guarantee the antimicrobial capacity of the leaf. It was concluded from the results that methanol and chloroform separates are both effective at stopping the development of clinical detachments. The results showed that methanol extraction has greater potential against bacteria than chloroform removal^[24].

ANTI-INFLAMMATORY ACTIVITY

Mallikarjuna Rao T et al., The effects of the drug were evaluated by contrasting the maximum paw edema response that occurred over the course of 6 hours in the medication-concentrate treated collection with that of the vehicle-viewed pack as a control. The group II mice were treated with indomethacin 1.3x10⁻⁵ moles/kg.wt., whereas the pack I standard rodents were treated with Drug vehicle (1% Sodium CMC) and filled in as would be typical control. The chosen plant was extracted at different component levels to cure the

additional friendly occurrences, and each dosage was administered orally based on the weight of the critters. The maximal paw edema reaction that was influenced during the six was not completely settled when the rate of increase in paw thickness was plotted against time (Hour) to evaluate this model. The results demonstrated the model's limitations in separating the relationship between the onset of rodent paw

edema caused by carrageenan and changes in the time course of paw size. The paw edema was continuously presented for four hours, reaching its peak at that time. The edema gradually lessened between the fifth and sixth hours. Using the following the formula, the pace of paw edema thickness advancement is still hanging out^[25,26].

OTHER MEDICINAL PLANTS

S.No	Tamil Name	Botanical Name	Family	Plant Part Used in Traditional Medicine	Medicinal Uses
1.	Sitharathai	<i>Alpinia galanga</i>	Zingerberaceae	Tuberous root	Treating cough, asthma and it very effective herb for treating winter season related problems.
2.	Thanner vittan kilangu	<i>Asparagus racemosus</i>	Asparagaceae	Dried roots	Attempt to treat conditions related to hormone imbalance such polycystic ovarian syndrome (PCOS) and infertility. Reduce Symptoms of Menopause.
3.	Aali vithai	<i>Linum usitatissimum</i>	Linaceae	Whole plant, stems, seed and oil.	Improve digestive health or relieve constipation, diabetes, high cholesterol, obesity and swelling of the kidneys in people with Lupus.
4.	Tagarai	<i>Valeriana officinalis</i>	Valerianoideae	Root	Treat sleeplessness and to reduce anxiety, insomnia, depression, premenstrual symptoms and headache.
5.	Krakach tal	<i>Serenoa repens</i>	Arecaceae	The ripe, dried berry	Treat begins prostatic hyperplasia (BPH), a Non- Cancerous enlargement of the prostate gland.
6.	Vettai pakku	<i>Hypericum mutilum</i>	Hypericaceae	Capsule, flowers, leaves and stem heads.	Menopausal symptoms, attention deficit hyperactivity disorder (ADHD), Somatic symptom disorder (a Condition in which a person feels extreme, exaggerated anxiety about physical symptoms), Obsessive compulsive disorder.
7.	Vishnu kranti	<i>Silybum maruanum</i>	Asteraceae	Roots and aerial parts	Liver disorder and gallbladder problems, promoted as a dietary supplements for hepatitis, cirrhosis, jaundice, diabetes, indigestion.
8.	Orange root or Yellow puccoon	<i>Hydrastis canadensis</i>	Ranunculaceae	Rhizome	Treat several skin, eye and mucous membrane problems, such in sinusitis pink eye and urinary tract infection.
9.	Indian winter cherry	<i>Panax quinquefolius</i>	Araliaceae	Dried main and lateral root and root hairs.	Boost energy, lower blood sugar and cholesterol levels, reduce stress, promote relaxation, treat diabetes and manage sexual dysfunction in men.
10.	Maidenhair tree	<i>Ginkgo biloba</i>	Ginkgoaceae	Leaves and seeds	Treat brain and circulatory problems and respiratory condition, cough, fever, diarrhea, toothache and even gonorrhea.
11.	Sirunangai	<i>Echinacea purpurea</i>	Asteracea	Roots, flower and leaves.	To Shorten duration of the common cold and flu and reduce symptoms, such as more throat (pharyngitis) Cough and fever.
12.	Babuna	<i>Matricaria recutita</i>	Asteracea	Dried flowers	Hay fever, inflammation, muscle spasm, menstrual disorder, insomnia, ulcers, wounds, gastrointestinal disorder, rheumatic pain and hemorrhoids.
13.	Maids	<i>Tanacetum parthenium L</i>	Asteraceae	Dried leaves, all parts of the	To treat and prevent headache, Rheumatoid arthritis, dermatitis.

				plants that grow above ground.	
14.	Elakkai	<i>Elettaria cardamomum</i>	Zingiberaceae	Cardamom seeds embedded in the pod.	Reduce fat deposition in the body and Manage skin and urinary problems, help support digestive health, circulation and the respiratory system.
15.	Capsicum	<i>Capsicum annuum</i>	Solanaceae	Fruit	Antioxidant properties, help to protect against disease such as cardiovascular disease and some cancer.
16.	Manjari or Krishna Tulsi	<i>Ocimum tenuiflorum</i>	Lamiaceae	Leaves, stems, flower, root, seeds and even whole plants.	Hand sanitizer, mouth wash, water purifier as well as in animal rearing, wound healing, the preservation of food stuff and herbal raw material and traveler's health.
17.	Katrachai or Kumari	<i>Aloe barbadensis miller</i>	Asphodelaceae	Leaves	Accelerates wound healing, reduce dental plaque, helps treat canker sores, reduce constipation, improve skin and prevent wrinkles.
18.	Brahmabuti	<i>Centella asiatica</i>	Apiaceae	Leaves and stems	Treat syphilis, hepatitis, stomach ulcers, mental fatigue, epilepsy, diarrhea, fever and asthma.
19.	Pot marigold	<i>Calendula officinalis</i>	Calendulaceae	Flower petals	Used in tincture, ointments and washes to treat burn, bruises and cuts as well as minor infection they cause.
20.	garden thyme	<i>Thymus vulgaris</i>	Lamiaceae	Flowers, leaves and oil	To flavor foods and are also used as medicine, help bacterial and fungal infection, help relieve coughing and have antioxidant effects.
21.	Rosemarine	<i>Salvia Rosemarinus</i>	Lamiaceae	Dried leaves	Improvement of digestion, Natural antibiotics, excellent diuretics, fighting mental fatigue, promote liver health, management of diabetes, treating inflammation.
22.	Spike lavender or spike	<i>L. angustifolia and L. latifolia</i>	Lamiaceae	Essential oil	Anxiety, stress, insomnia, depression, dementia, pain and many other conditions.
23.	Venthayam	<i>Trigonella foenumgraecum</i>	Fabaceae	Seeds, leaves and even the whole plant	Kidney ailments, beriberi, mouth ulcers, boils, bronchitis, chronic cough.
24.	Pudina	<i>Melissa officinalis</i>	Lamiaceae	Leaves	Reduce stress and anxiety, promote sleep, improve appetite, ease pain and discomfort for indigestion.
25.	Sagargota	<i>Caesalpinia bouduc</i>	Fabaceae	Leaves, root bark fruit, seeds and flowers.	Support to alleviate fever signs like body pain, joint inflammation and abdominal pain.
26.	Vetiver	<i>Chyrosopogon zizanioides</i>	Poaceae	Roots and leaves	Promote female fertility, treat insomnia, aids in digestion improve.
27.	Goshtam or kosbtham or kottam	<i>Dolomiaea costus</i>	Asteraceae	Roots	Chronic gastritis, stomach ulcer, rheumatoid arthritis, asthma and bronchitis in traditional medicine and in inflammation related disease.
28.	Cochin grass or Malabar grass	<i>Cymbopogon citratus</i>	Poaceae	Leaves	Help prevent the growth of some bacterial and yeast, relieve pain and swelling, reduce fever, improve levels of sugar and cholesterol in the blood, stimulate the uterus and menstrual flow and have antioxidant properties.
29.	Candy leaf or sweet leaf or sugar leaf	<i>Stevia rebaudiana</i>	Asteraceae	Leaves	Non-nutritive sweetener and herbal supplement, obesity, high blood pressure, diabetes and many other conditions.
30.	Cumbum panneer thratcgai	<i>Vitis vinifera</i>	Vitaceae	Flowers and fruits	Good Source of potassium, a mineral that helps balance fluids in your body, rich in nutrients, boost your immunity, provide antioxidant, promote better sleeps, improve

CONCLUSION

The "Indian chalk plant," *Chrozophora rotleri*, has a lot of potential in traditional medicine and pharmacology because of the variety of phytochemical components and pharmacological actions it exhibits. Indigenous cultures have traditionally used this flowering plant from the Euphorbiaceae family in healing rituals. It is well known for its function in the treatment of a variety of illnesses, including wounds, skin disorders, colds, coughs, and digestive problems. The therapeutic effects of the plant are a result of its bioactive constituents, which also include alkaloids,

glycosides, tannins, flavonoids, and steroids. Antihelminthic, antioxidant, anti-inflammatory, anti-fungal, and antibacterial properties of these substances have been demonstrated. The plant also produces a material like chalk, which has been used traditionally for cosmetic and therapeutic purposes. To completely comprehend the mechanisms underlying its pharmacological actions, isolate and identify specific bioactive components, and investigate its potential applications in contemporary medicine, additional research is necessary. *Chrozophora rotleri* is a prime example of the possibility for interdisciplinary collaboration between cultural heritage and scientific investigation by bridging the gap between conventional wisdom and modern scientific inquiry.

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