

A Review on Phytochemical and Pharmacological Properties of *Calotropis gigantea*

Rajendra Kumar*, Prakash Rao, Akhilesh Kumar, Dhanesh Kumar, Mahendra Kumar, Pratiksha Fulzele and Prachita Joshi

Department of Pharmacology, Columbia Institute of Pharmacy, Raipur, India

*Corresponding author: Dr. Rajendra Kumar, Department of Pharmacology, Columbia Institute of Pharmacy Raipur, 493111 India, E-mail: sonbarsha136@gmail.com

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Abstract

Calotropis gigantea Linn could be a well apprehend healthful herb oftentimes acknowledged identical as milkweed and has been utilized in Unani, Ayurveda and Siddha system of medication for years for quite while. It is a local of India, China and Malaysia and it is disseminated in approximately the entire whole world. Pieces of the plant are used as medication as well as an important component in number of Unani formulations utilized for the treatment of many disease. In classical Unani literature, it's mentioned to own anthelmintic, appetizer, opposing flatulence, astringent, tonic, medication, emetic, diaphoretic, mitigating,

Sedative, wound expert, counteractant and abdomen connected properties and utilized in respiratory disorder, stomach ache, cholera, amenorrhea and toothache. Phytochemical constituents incorporate giganteol, (3 calotropeol, 13-amyrin, giganteol and isogiganteol and so forth. *Calotropis gigantea* has been reportable for its antiasthmatic enemy of asthmatic, antibacterial medication, antiviral, injury recuperating, antidiarrhoeal, hepatoprotective and hypoglycemic action.

gigantea could be a well-known medicinal herb commonly referred to as Madar has been utilized in Unani, Ayurveda, and Siddha system of drugs for years. All parts of this plant are used as medicine within the indigenous system of Ayurvedic medicine [3]. It is generally known as milk weed (or) crown flower weed. *Calotropis gigantea* is latex bearing plants and releases the latex after a tissue injury. This milk weed plant gained importance in recent years as a possible pesticidal source against insect pests [4]. Plant latex could be a mixture of alkaloids, tannins, gum, sugars, starch, resins and proteins [5]. This plant was widely employed by all sections of the society directly as folk remedies or indirectly as pharmaceutical preparation of recent medicine [6]. Indian medicinal plants describe the utilization of this plant within the treatment of number of ailments including anorexia, asthma, cold and cough. Roasted leaves is helpful in painful joints or swellings [7-9]. *Calotropis gigantea* is reported to exhibit mosquito controlling properties against *Culex gelidus* and *Culex tritaeniorhynchus* mosquitoes which function vectors for Japanese encephalitis. The aqueous extract of the *Calotropis gigantea* leaves demonstrated significant larvicidal, repellent and ovicidal activity [10]. This review to supply an in depth study of Taxonomic rank, Vernacular names, Origin, Geographical and Morphological distribution, Propagation and Planting, Phytochemicals, Medicinal values and other uses of the plant [11-13].

Keywords: *Calotropis gigantea*; Pharmacological studies; Treatment; Phytochemicals; Traditional medicine

Introduction

Calotropis gigantea (crown bloom) could be a types of *Calotropis* local to Cambodia, Indonesia, Malaysia, the Philippines, Thailand, Sri Lanka, India, China, Pakistan, Nepal, Booc in Somalia and tropical Africa [1]. This plant plays host to a scope of bug and butterflies. It's the host plant for Hawaii's non-transient ruler butterflies. (Butterfly Society of Hawaii.org). *Calotropis* is an example of entomophily pollination (pollination by insects) and pollination is achieved with the assistance of bees. Since past, plants are a variable source of drugs; mantends to ignore the importance of herbal medicine [2]. *Calotropis*

Literature Review

Morphology and distribution

Calotropis Procera and *Calotropis gigantea* linn. Both the species closely resemble one another in structure and find related uses [14]. *Calotropis gigantea* Linn could be a glabrous, laticiferous shrubs or small trees, about 3-4 m tall ordinarily moved on to as the swallow-wort or milkweed. The leaves are widely elliptical to oblong-obovate in shape, with the scale of 9-20 cm x 6-12.5 cm but subsessile. The cymes are 5-12.5 cm in diameter. The inflorescence stalk is between 5-12 cm long, the twig of a separate flower is 2.5-4 cm long. Sepal lobes are broadly egg-shaped with a diameter of 4-6 mm x 2-3 mm. Petal

is 2.5-4 cm in diameter. Its bundles of waxy roses that are either white or lavender in shading. Each blossom comprises of 5 pointed petals and a tiny low, exquisite crown ascending from the middle, which keep the stamens. Flowers are virtually throughout the year but most normally from November to March in central India [15]. The plant has oval, light green leaves and milky stem [16].

Propagation and planting

Calotropis gigantea are normally spread by seed or stem cutting. The seed is disseminated by wind and water and fundamentally treated by honey bees, butterflies and wasps. It may additionally be duplicated by tissue culture forms like cell suspension culture as Natural change is amazingly normal. Vegetative spread through stem and root cuttings is powerful in wide scale increase of the predominant genotypes.

Conclusion

Calotropis gigantea is usually distributed throughout India, which is employed as a standard medicine, Fuel, Ornamental, Fibre, Auxiliary plant, mosquito controlling etc. phytochemicals present in whole plant of *Calotropis gigantea* indicates their potential as a sources of principles which will supply novel medicines. Furthermore, isolation, verification standardized of the phytochemicals form present will make study more interesting.

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