

Calotropis Gigantea-From Traditional Wisdom to Modern Therapeutics: A Holistic Review of its Phytochemical and Pharmacological Potential

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Abstract: *Calotropis gigantea Linn*, commonly known as milkweed, is an important medicinal plant with a long history of use in traditional medical systems such as Unani, Ayurveda, and Siddha. It is originally native to regions of India, China, and Malaysia, but it is now widely distributed across many parts of the world. Almost all parts of this plant are utilized for therapeutic purposes and are key ingredients in several Unani formulations used to manage a variety of ailments.

Classical Unani literature describes this plant as possessing numerous medicinal properties, including anthelmintic, appetite-stimulating, carminative, astringent, tonic, expectorant, emetic, diaphoretic, anti-inflammatory, sedative, wound-healing, antidiotal, and digestive actions. Traditionally, it has been employed in the treatment of diseases such as asthma, abdominal pain, cholera, menstrual disorders, and dental problems.

*Phytochemical studies have revealed the presence of compounds such as giganteol, α - and β -calotropenol, β -amyrin, and other bioactive constituents. Scientific research has demonstrated that *Calotropis gigantea* exhibits a wide range of pharmacological activities, including anti-asthmatic, antioxidant, antibacterial, antiviral, wound-healing, anti-inflammatory, antidiarrheal, hepatoprotective, and antidiabetic effects. The latex, leaves, flowers, bark, and roots of the plant are commonly used in traditional remedies to treat various health conditions..*

Keywords: *Calotropis gigantea, phytochemicals, pharmacological activities, phytochemistry*