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A review on *Acalypha indica* Linn important medicinal plant and uses

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Abstract

Acalypha indica is an herbal plant that grows in wet, temperate and tropical region. This plant is considered by most people as a weed and can easily be found in these regions. Although this plant is a weed. *Acalypha indica* has been acknowledged by local people as a useful source of medicine for several therapeutic treatments. They consume parts of the plant for many therapeutics purposes such as anthelmintic, anti-ulcer, asthma, bronchitis, antimicrobial and wound healing activity.

Keywords: Medicinal plant, *Acalypha indica*, therapeutics, pharmacology, traditional plant

Introduction

Acalypha indica a flowering plant belonging to Family Euphorbiaceae. It occurs throughout tropical Africa and South Africa, in India and Sri Lanka, as well as in Yemen and Pakistan. This plant is an erect, simple or branched, slightly hairy annual herb. It is a species of plant having catkin type of inflorescence. It is a common herb growing up to 40-75 cm tall with ovate leaves. The plant is rich in secondary metabolites such as terpenoids, tannins, alkaloids, flavonoids ^[1]. The plant root, leaf, flower and stem parts possess antibacterial, anti-fungal properties and to use to treat various diseases and disorders ^[2].

Taxonomical classification

Kingdom: Plantae

Super division: Embryophyte

Division: Tracheophyta

Sub division: Spermatophytina

Class: Magnoliopsida

Sub order: Rosanae

Order: Malpighiales

Family: Euphorbiaceae

Genus: *Acalypha*

Species: *Indica*

Vernacular Names

Bengali: Muktajhuri Stera-basanta

Sanskrit: Haritamanjari

Malayalam: Kuppameni

Tamil: Kuppivaeni, kuppaimeni

Kannada: Kuppigida

Hindi: Kuppikhoksli, Kuppu, Khokali

Telugu: Kuppichettu, Harita-manjiri, kuppinta, muripindi

English: Indian acalypha

Gujarathi: Vanchi Kanto

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In traditional Indian medicine, *Acalypha indica* is known as kuppi or kuppameni ^[3], and has been used to treat a wide range of ailments for centuries. The leaves and root of the plant are

used in Ayurvedic Medicine to treat skin disorders, respiratory problems and urinary tract infections ^[4, 5]. It is also used to relieve pain and inflammation and to reduce fever ^[6].

Medicinal uses of *Acalypha indica* Linn

The leaves, roots, stalk and flowers of *Acalypha indica* are used for its medicinal properties. Whole plant is used for asthma, pneumonia, bronchitis and rheumatism ^[7]. It is useful in treatment of skin disease, snake bite ^[8, 9]. The leaf extract has been reported to possess various properties such as antimicrobial, antioxidant and anti-diabetic activities ^[10, 11]. It is an important wild edible plant with prominent nutraceutical values ^[12]. Extracts of leaves called "Charu" obtained by grinding them and is used in treating different fungal infections of skin ^[13]. Nowadays many skin related infectious diseases are spreading, specifically the high populated countries like India and hence it is very important to develop quick remedy for such infectious diseases.

Acalypha indica proved to be best herbal medicine for various disease including skin diseases therefore an ideal formulation prepared from this plant is used to treat such skin diseases. There is a need of more sophisticated testing methods for pharmacological, toxicological and microbiological activities, for determining quality of the herbal formulations. It is, therefore, essential that definite and accurate analytical methods be available to follow consistency and quality of herbal drugs, so that these products exhibit the desired medicinal effects. WHO specifies guidelines for the assessment of the efficacy and quality of herbal drugs as a prerequisite for global harmonization ^[14].

Conclusion

Acalypha indica is a medicinal plant that has been known as a source of traditional medicine for treating several diseases in ethno medicinal practices. The *Acalypha indica* extracts have been reported to possess many pharmacological activities, such as anti-arthritis, antibacterial, anti-diabetic, anti-fungal, anti-hyper lipidemic, anti-inflammatory and other activities. Furthermore, Scientists have identified the phytochemical constituents of this plant which are included constituents of this plant which are included in the secondary metabolites of alkaloids, flavonoids, phenolics, tannins and steroids. Although *Acalypha indica* has been reported to inhibit several types of cancer growth and has many phytochemicals, until now, progress in the discovery of anti-cancer lead compounds from this plant is still limited.

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