Cephalandra Indica: A miracle of nature

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Abstract
Cephalandra indica commonly known as Ivy gourd, Little gourd, Kovai belongs to family Cucurbitaceae. It is widely used for hypoglycemic and anti-diabetic activities in homoeopathy and other system of traditional medicine. It contains an enzyme with amyloytic properties, a hormone and traces of an alkaloid and it produces reduction of sugar in the blood and urine of patients suffering from glycosuria.

The present review attempts to encompass the available literature on Cephalandra indica with respect to its morphological characters, phytochemistry, summary of its various pharmacological activities and traditional and homoeopathic uses.

Keywords: Cephalandra indica, hypoglycemic, anti-diabetic, homoeopathy

Introduction
The World Health Organization estimated near about 80% of world population both in developing and developed countries use herbal drugs for various ailments. This plant is one of the tremendous plants of Homoeopathy system and Ayurveda [1, 10]. Cephalandra indica is widely used for hypoglycemic and anti-diabetic activities in ayurvedic system of medicine. The whole plant of cephalandra indica having pharmacological activities like Antidiabetic, Antibacterial, Antitussive, Antimicrobial, Antioxidant, Antiinflammatory, Hyperlipidemic, Hepatoprotective, Chemoprotective [3].

Synonym: Coccinia grandis, Coccinia cordifolia, Coccinia Indica [2], Physedra, Staphylosyce [4].

History and distribution
Cephalandra indica is native from Africa and Asia including India, Indonesia, China, Malaysia, Philippines, Eastern Papua, Guinea, Vietnam and Northern territories. In India Cephalandra indica grows in large quantities and widely distributed in Andhra Pradesh, Tamil Nadu, Kerala and Lakshadweep [1].

Scientific Classification: [2, 3].
Kingdom: Plantae
Order: Cucurbitales
Family: Cucurbitaceae
Sub family: Cucurbitoideae
Tribe: Benincaseae
Sub tribe: Benincasinae
Genus: Coccinia wight & arn
Species: Cephalandra indica

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Fig 1: Different stages of cephalandra indica
Phytochemical Constituent: [1, 2, 3, 4, 5, 6, 7, 8].
Cephalandra indica contains alkaloids, flavonoids, fatty acids, as major chemical constituents.

Aspartic acid, Glutamic acid, Asparagines, Tyrosine, Histidine, Phenylalanine, Threonine, Valine.

Pharmacological Profile: [1, 3, 4, 5, 6, 7, 9].
Cephalandra indica exhibits following pharmacological activities,

- Antidiabetic activity
- Antibacterial activity
- Antitussive activity
- Antimicrobial activity
- Antioxidant activity
- Anti-inflammatory activity
- Antihyperlipidemic activity
- Hepatoprotective activity
- Chemoprotective activity.

Traditional Uses
The fruit of Coccinia indica is useful in biliousness and diseases of blood. The green fruit is chewed to cure sores on the tongue. The bark of root is used as cathartic. The leaves are applied externally in eruptions of the skin, leaves of this plant are boiled in gingly oil and applied externally in ringworm, psoriasis and itch, leaves are also used as expectorant and antispasmodic. The oil is used in application to ulcers and as an injection into chronic sinuses. The plant is also used in the treatment of gonorrhea.6

Cephalandra Indica-Homoeopathic Use: [12, 13].

Clinical
Diabetes mellitus and insipidus; skin affections; jaundice; dropsy; dysentery; sunstroke; boils; abscesses; carbuncles. The grand medicine for diabetes mellitus and insipidus; glycosuria. Intolerable burning sensation all over the body, especially adapted to people, oversensitive to noise and external impressions.12

Diabetes mellitus, associated with biliousness, abscess, boils and carbuncles.15

Mind
Morose, fretful, disinclined to do any work, gloomy, memory partially gone; oversensitiveness (mentally and physically)12.

Head
Giddiness worse after micturition; weakness [12]. Difficulty in raising head [14].

Eyes: Burning in the eyes [12]. Painful opening of the eye [14].

Face: Red and burning [12].

Mouth:
Dryness of mouth with great thirst for large quantity of water at a time, worse after micturition [13].

Dryness of the throat and tongue; thirst, consequently the quantity of urine is more [14].

Throat: Dryness of the throat [12].

Stomach: Loss of appetite [14].

Abdomen: Flatulence, distended [14].

Stool: Greenish mucoid; tinged with blood and pain before and during stool [13]. Constipation, stool with mucus [14].

Urinary: Profuse micturition; weakness and exhaustion after micturition; sugar in the urine; diabetes mellitus; polyuria [12].

Modalities: Worse after micturition. Better by cold application [12].

Dose: Mother tincture, 1x, 3x.

Conclusion
World health organisation recommends the use of traditional plants for the treatment of diabetes mellitus as they are effective, nontoxic with no side effect [1]. Homoeopathic medicine cephalandra indica is one of the best remedy for the treatment of Diabetes mellitus [11].

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