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A review study on *Achyranthes aspera* (Amaranthaceae)-A valuable medicinal herb

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Abstract

Achyranthes aspera L. is known as Chirchita and Latjeera in local language. It is belong to Amaranthaceae family. The plant is highly used by traditional healers in treatment of cold, cough, asthma, boils, bronchitis, headache, colic, debility, dropsy, bleeding, dysentery, ear complications, leucoderma, pneumonia, renal complications, scorpion and snake bite and skin diseases etc. The present review describes some of the taxonomical classification, botanical characters, chemical constitutes and uses.

Keywords: traditional knowledge, herbal drugs, medicine

Introduction

The herbals occupied a distinct place in the life right from the primitive period till date and provided information on the use of plants or plant products and products as medicine [1]. In recent time, there has been a marked shift towards herbal cures because of the pronounced cumulative and irreversible reactions of modern drugs. However, due to over population, urbanization and continuous exploitation of these herbal reserves, the natural resources along with their related traditional knowledge are depleting day by day [2].

Achyranthes aspera L. (Family Amaranthaceae) is known as Chirchita and Latjeera in local language. It is an important medicinal herb which is found as a weed throughout India. It is a well-known plant drug in Ayurvedic, Unani-Tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home Remedies [3]. The plant is highly esteemed by traditional healers and used in treatment of asthma, bleeding, in facilitating delivery, boils, bronchitis, cold, cough, boils, colic, debility, dropsy, dog bite, dysentery, ear complications, headache, leucoderma, pneumonia, renal complications, scorpion bite, snake bite and skin diseases etc [4].

Classification

Kingdom : Plantae
Super Division : Spermatophyta
Division : Magnoliophyta
Class : Magnoliopsida
Subclass : Caryophyllidae
Order : Caryophyllales
Family : Amaranthaceae
Genus : *Achyranthes*
Species : *Aspera*

Synonyms

Latin : *Achyranthes aspera*
Hindi : Latjira, Chirchira
Sanskrit : Agatha
Gujarati : Safed Aghedo
Tamil : Shiru-kadaladi
Ayurvedic : Apamarga, Chirchita, Shikhari
Unani : Chirchita

Botanical characters

Achyranthes aspera L. (Latjeera) is an erect or procumbent, annual or perennial herb of about 1-2 meter in height, often with a woody base. Stems angular, ribbed, simple or branched from the base, often with tinged purple colour [5]. Flowering time of this plant is in summer.

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The stems are square, leaves elliptic ovate or broadly rhombate. The inflorescences are 8 - 30 cm long, with many single, white or red flowers, 3 - 7mm wide^[6].

Chemical Constituents

Saponin A was identified as D-glucuronic acid and saponins B was identified as β -D-galactopyranosyl ester of D-glucuronic acid from *Achyranthes aspera*. Along with these constituents certain other constituents were also isolated like oleanolic acid, amino acids and hentriacontane. The seeds also contain chemical constituents like 10-tricosanone, 10-octacosanone & 4 tritriacontanone^[7]. From the ethanolic extracts of the roots of *Achyranthes aspera* isolated a new aliphatic acid has been isolated and it has been identified as nhexacos-14-enoic acid^[8].



Fig 1: *Achyranthes aspera* (Latjeera) with inflorescence

Uses

Whole plant ash is a good remedy for bleeding piles and abdominal problems. Root is used as tooth brush to clean the mouth and to cure halitosis. Infusion of the twig is also used as a wash for toothache. Root extract is used as an eye drop at bed time for night blindness^[9]. It is reported to contain alkaloids, flavonoids, saponins, steroids and terpenoids. Flavonoids have shown to prevent or slows the development of some cancers^[10].

Conclusion

Achyranthes aspera L. (Latjeera) is a very important medicinal herb. It is used in treatment of many diseases like, boils, bronchitis, cold, cough, boils, colic, debility, dropsy, dysentery, ear complications, headache. Therefore, more studies are needed to refine the use and improvement of the efficacy of this valuable medicinal herb plant.

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