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**Review Article** 

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# A REVIEW ARTICLE ON CHIRAYITA

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#### **ABSTRACT**

Swertia chirayita is also known as Chirata. It is a herb that is found in Himalayas, and used as traditional medicine in various ailments like Liver disorders, malaria, and diabetes and are reported to have a wide spectrum of pharmacological properties. It comes under Gentianaceae medicinal usage is well-documented in Indian pharmaceutical codex, the British, and the American pharmacopeias and in different traditional medicine such as the Ayurveda and other conventional medical systems. This herb is known mostly for its bitter taste caused by the presence of different bioactive compounds that are directly associated with human health. The increasing high usage of Swertia chirayita, mostly the underground tissues, as well as the illegal

overharvesting with habitat destruction results in this plant to the verge of extinction. The increasing national and international demand for Swertia chirayita has led to unscrupulous collection from the wild and adulteration of supplies.

**KEYWORDS:** medicinalplant, Swertiachirayita.

# INTRODUCTION

One of the prerequisites for the success of primary health carei s the availability and use of suitabledrugs. Traditional medicineis still the most afford able and easily accessible source of treatment in the primary health care system. Medicinal plant shave always been apotential source to cure different diseases, eitherinthe for mof traditional preparations or as pureactive principles, and the y are frequently the only source of medicine for the majority of peoplein the developing world.

One of the prerequisites for the success of primary health care is the availability and use of suitable drugs. Traditional medicine is s till the most affordable and easily accessible source of treatment in the primary health care system. Medicinal plant shave always been a potential source to curedifferentdiseases, eitherinthe formoftraditional preparations or aspureactive principles, and theyarefrequentlytheonlysource of medicine for the majority of people in the developing world. Swertia, a genus in the family Genti anaceae include a large groupofannual and perennial herbs, representing approximately 135 species. Swertia species are commoningredientsinanumber of herbalremedies. InIndia, 40speciesof Swertia arerecorded (Clarke, 1885; KirtikarandBasu, 1984), of which, Swertia chirayita is considered the most important for its medicinal properties. S. chirayita was first described by Roxburgh under thename of Gentiana chyrayta in 1814 (Sc artezzini and Speroni, 2000). S. chirayita, common name: "Chiretta" (Figure 1) is a critically endangered medicinal herbthat grows at high altitudes inthesub-temperateregions of the Himalayasbetween1200and 2100 maltitudes from Kashmirto Bhutan(Bentley and Trimen, 1880; Clarke, 1885) on the slopes of moist shady places (Gaur, 1999; Figure 2). Its widespread uses in traditional medicine have resultedinover- exploitation from the natural habitat and iti

Swertia Charaita is a popular medicinal herb native to high altitude regions, ranging from Himalayas to Bhutan. It has bitter taste, each part of plant is beneficial. It helps in weight loss, managing Diabetes, acts as Renal protective due to presence of certain bioactive compounds. In Ayurveda, it is considered as Jvarghana (antipyretic) Chirayata powder helps in wound healing due to its Ropan and Pitta balancing properties. Usually it is best collected when flowering (july-october) and used in dry form. This ancient herb is also sometimes known as the Nepali Neem because it is annual/biennial herb in the forests of Nepal. There are two bitter principal constituents namely ophelic acid and chiratin which posses antiinflammatory, analgesic, resolvant, hypoglycemic properties.

## **Botanical description**

Charaita is an herbaceous plant of small height ranging as 0. 5-1. 25 meter. Leaves lie opposite at stem, flowers are blue, lurid and sometimes white with yellow nectar is in terminal corymbose organicular cymes. It is found in temperate Himalayas at an altitude between 1200-1300m from Kashmir to Bhutan.

### **Synonyms**

Swertia chirata, Kirataka, Bhunimba, Kiratatikta, Chirta, Kiraita, Nilmakanjiram, Chirata Kaddi.

#### DISTRIBUTION

Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Meghalaya and Sikkim between altitudinal ranges of 1400 – 3270 m. China; tibet; nepal and bhutan.

# **BOTANICAL CLASSIFICATION**

Kingdom: Plantae

(Unranked): Angiosperms

Order: Gentianales

Family: Gentianacea

Genus: Swertia L

#### CHEMICAL CONSTITUENT

Two principal constituent namely Ophelic acid and Chiratin. Beside these Xanthones, glycosides and mangiferin (Flavonid) are also present. Xanthones subtypes known as swertianin and swerchirin chemically trihydroxy3-methoxyxanthone and syringaresinol, magniferin respectively possess antifungal, antibacterial, hepatoprotective, anti-inflammatory and analgesic property.

#### **BENEFITS OF CHIRATA**

I. In Ayurvedic texts Chirata is described as anti pyretic drugs and under Jvaraghana. In Ayurveda, Malaria fever is known as Vishamajwara. clinical features of vishamajwara are fever with irregular onset and remission, execessive thirst, generalized body pains, headache and rigors. Taking Chirayata as decoction—raw dried whole plant of chiyata, boil it in 1 cup of water till reduced to ¼ th of its quantity, then filter it use of this drink 3-4 spoons twice a day helps to manage these symptoms.

II. Chirata might lower the risk of worm infestations, due to its antihelmintic property. It helps destroy the conditions that are ideal for growth of these parasites.

- III. It helps to manage appetite. It works as appetite stimulant.
- IV. It increases metabolism and helps to reduce weight.
- V. It increases insulin secretion and reduces oxidative stress in diabetic patients due to its antioxidant property.
- VI. Due to its liver protective activities, it helps to prevent Liver diseases

#### RECOMMENDED DOSAGE OF CHIRATA

- Powder---- 1-3 gms.
- Tablet -----1 twice a day
- Capsule----1 cap. a day

#### **SIDE EFFECTS**

Imbued with potent bioactive components, this bitter herb exhibits no recrded side effects when used in correct proportion. But excess of it can induce vomittings, hypoglycemia or conditions like dizziness, numbness of hand and feet etc.

#### CONCLUSION

There is big availability of modern medicine for the treatment of many disorders but these medicines have disadvantages like side effects, costly to common man and chance of recurrence of the disease when drug is stopped reoccurrence of disease happens. The medicines which are natural based have lesser side effects and easily available to patients. Charaita contain various active chemical constituents viz; swertianin and swerchirin, Ophelic acid and chiratin and flavonoids compound which have been reported as antimicrobial activity against various skin disorders besides this these possess hepatoprotective and antiinflammatory action by which Charaita give potentiating to immunity and resolve the local inflammation through internal environment. Further elaborative research is needed to evaluate other unknown profit of Charaita. May this review will be supportive as new possibility for the research scholars for various skin diseases.

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