



GILODYA (*Ceropegia bulbosa* Roxb. var. *bulbosa*): A LITERARY REVIEW

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ABSTRACT

Acharya Sushruta mentioned Gilodya under Madhur Varga, and Karma of Madhur Rasa is mentioned as Balya. On the basis of morphological character and habitat described by Acharya Dalhan, Acharya Priyavrat Sharma has concluded that Gilodya is *Ceropegia bulbosa* roxb. *Ceropegia* is tropical Genus of climbers and it contains about 200 species, of which 49 species are found in India. It grows sporadically in red lateritic soil. Among different species *Ceropegia bulbosa* roxb. is one of the widely distributed species but still threatened. Gilodya (*Ceropegia bulbosa* roxb. var. *bulbosa*) belonging to family Asclepiadaceae is found distributed throughout India. In Rajasthan its local name is "Khadula". *Ceropegia bulbosa* is a useful medicinal plant. Traditionally, it is used for kidney stone, diarrhoea, dysentery, to increase fertility and vitality. The tubers and leaves are eaten and considered to be tonic and digestive. Tubers of Gilodya are locally and traditionally used by tribal and villagers of Rajasthan to gain strength and energy. Wild edible tubers contain more crude fibers, crude proteins and carbohydrates.

KEYWORDS: *Ceropegia bulbosa* roxb. var. *bulbosa*, Gilodya, Khadula.

INTRODUCTION

Gilodya (*Ceropegia bulbosa* roxb. var. *bulbosa*) belonging to family Asclepiadaceae is found distributed throughout India. In Rajasthan its local name is "Khadula". Acharya Sushruta mentioned Gilodya under Madhur Varga while Nighantu Aadarsh mentioned gilodya under Arkadi Varga. Nighantu Aadarsh described Gilodya as "Patalumbi" and mentioned Sanskrit, Gujraati and Hindi vernacular names. Acharya Priyavrat Sharma has concluded that Gilodya is *Ceropegia bulbosa* Roxb. *Ceropegia* is old world tropical Genus of climbers and it contains about 200 species, of which 49 species are found in India. It grows sporadically in red lateritic soil. Among different species *Ceropegia bulbosa* is one of the widely distributed species but still threatened.¹ The species is represented by three varieties, i.e.; *Ceropegia bulbosa* Roxb. var. *bulbosa* and *Ceropegia bulbosa* Roxb. var. *lushii* (Grah.) Hook. f., *Ceropegia bulbosa* Roxb. var. *esculenta*². Here, a review of *Ceropegia bulbosa* Roxb. var. *bulbosa* only has been attempted. *Ceropegia bulbosa* is a useful medicinal plant. Traditionally, it is used for kidney stone, diarrhoea, dysentery, to increase fertility and vitality. The tubers and leaves are eaten and considered to be tonic and digestive. Tuber of this plant has been used for Balavardhan and nutritional purpose by villagers of Rajasthan. Parts of the plant like leaves, tuber, roots and seeds are used in various diseases like kidney stone and deafness. The tuber is reported to contain an active alkaloid namely Ceropegin. Roots are also reported to contain starch, sugars, gums, albuminoids, Fats and crude fiber.³ Different references regarding Gilodya were collected from Bruhatrayi, Laghutrayi, Nighantu, various textbooks and previous studies. Conceptual view of Gilodya was studied in detail from books of Botany and related subjects, databases, review articles and related websites.

AYURVEDIC REVIEW OF GILODYA

Etymology and derivation of word Gilodya according to Vachaspathyam⁴:

**"Gilodya Pu. Madhurfaale Vrikshbhede |
Katakilodyapiyaletyadyupkrame Samasen Mad huro
Vargh."**

Etymology of the term gilodya in Vaiydyaka-Sabdasindhuh:⁵

**"Gilodya: |pu. |shanpatrakaaravyavyuktaphalvisheshe| Gilot
eti loke"**

The description about Gilodya is not found in Vedas. It was first mentioned by Acharya Sushrut in Rasavisheshha Vijananiya Adhyaaya under Madhur Varg.⁶ Again Shusrut samhita described about Gilodya in Prameha Chikitsa⁷.

Acharya Dalhan's commentary about Gilodya in this context gives some more clarification about the plant.

**"Gilodya Kanda Praavrut Jaata Sanapatraakaar Valliyukta
Charmandwatinadivawa swetvartulpaasaansadrush Gugilot iti
loke"**⁸

In this context, Dalhan describes the morphological characters and habitat of this plant. In his view,⁹

1. Gilodya Kanda - its bulbs are chewed and swallowed, and they are primary among which are swallowed, or bulb look like Gilayu gland in throat,
2. Praavrut Jaata - it grows at starting of rainy season,
3. Valliyukta - it is twining herb,
4. Sanapatraakaar- its leaves look like that of *Crotalaria juncea* L.,
5. Swetvartulpaasaansadrush- its bulb looks like white round stone,
6. Charmandwatinadivawa - it grows in the forest which are around Chambal river

If you go through the period of Nighantu, there is no description of Gilodya except in Nighantu Aadarsh. Nighantu Aadarsh described Gilodya as "Pataltumbi" and mentioned its Latin name as *Ceropegia bulbosa*. It also mentioned Sanskrit, Gujraati and Hindi vernacular names.¹⁰

On the basis of morphological character and habitat described by Acharya Dalhan, Acharya Priyavrat Sharma has concluded that Gilodya is *Ceropegia bulbosa* roxb.¹¹

Bedivanaspati kosha has also mentioned about the word Gilodya.¹²

CLASSICAL NAMES- Gilodya (Sushruta samhita), Gilothi (dalhan), Bhutumbhi (Nighantu-adarsh), Pataltumbari (Nighantu adarsh), Gugilot (dalhan), Pataltumbi (Nighantu adarsh),

AYURVEDIC PHARMACOLOGY

Acharya Sushrut has kept Gilodya in Madhur Varga. Besides this, Rasa, Guna, Virya and Vipaka of Gilodya has not been specified in any ancient and contemporary Ayurveda texts.

MODERN REVIEW

There are three varieties of this plant, i.e.; *Ceropegia bulbosa* Roxb.var. *bulbosa* and *Ceropegia bulbosa* Roxb. var. *lushii*(Grah.) Hook.f., *Ceropegia bulbosa* Roxb. var. *esculenta*.¹³ Here, a review has been attempt of *Ceropegia bulbosa* roxb.var.*bulbosa* only. *Ceropegia bulbosa* is a useful medicinal plant. Traditionally, it is used for kidney stone, diarrhoea, dysentery, to increase fertility and vitality. The tubers are tonic and digestive.

VERNACULAR NAMES

Sanskrit – Gilodya

Hindi – Khapparkadu, Gilothi

Rajasthan – Khadula¹⁴

Marathi – Gayala, Khapparkadu

Punjab – Galot

Bombay– Patalatumbari

Tamil – Bachchalimanda¹⁵

Telugu – Mande, Manjimande, Nimmatayi, Palatige, Tiyyamande¹⁶

DISTRIBUTION: It is found in India and Pakistan. In India, it is found in Maharashtra, Tamilnadu, Andhra Pradesh, Rajasthan, Gujarat, Punjab

BOTANICAL DESCRIPTION

HABIT: *Ceropegia bulbosa* roxb.var. *bulbosa* is small, perennial herb growing amongst thorny and spiny bushes of *Capparis deciduas* and *Prosopis julifera* on which they climbs and also gets protected against grazing animals. It requires sandy soil mixed with some stony fraction.

ROOT: Root of *Ceropegia bulbosa* Roxb. var. *bulbosa* emerged out from turnip like tuber that is glabrous, creamish brown, globose to elliptical, broad at top and narrows down, edible.

STEM: Stem of *Ceropegia bulbosa* roxb.var.*bulbosa* is herbaceous, dark green climber, cylindrical, smooth, branched with nodes and internodes of variable distances.

LEAF: Leaf of *Ceropegia bulbosa* roxb.var.*bulbosa* develop on nodal region of the stem, abaxial surface dark green, adaxial surface light green, petiolate, base rounded, simple, glabrous, fleshy, stipulate, 2-3 leaves arises at each node, opposite, superposed, margin slightly undulate, elliptic- oblong, lowest

almost orbicular, largest leaves are present almost at the middle of the stem, apex acute mucronate, pinnate venation.

FLOWER: Flower of *Ceropegia bulbosa* roxb.var.*bulbosa* are pendunculate, pedicillate, simple umbel or cymose type, arises from axil of leaf, pentamerous, hermaphrodite, actinomorphic, regular, white at base and purple at top, sepals; 5, petals; 5, broad and fused at base, narrower and free at top, ends enrolls and make a tube like structure to make a cage (corona).

FRUIT: Fruit of *Ceropegia bulbosa* roxb.var.*bulbosa* is a pair of follicles originate oppositely, 8-10x0.5 cm long, glabrous, tapering at ends, dehisces longitudinally, many seeded.

SEED: Seeds are flat, ovate-oblong and are crowned by a membranous margin, hairy, these hairs facilitate the dispersal of the seeds by wind, the embryo is large.

FLOWERING TIME: It occurs during July-September.¹⁷

CHEMICAL CONSTITUENTS: The tuber is reported to contains an active alkaloid namely Cerpegin.¹⁸ Roots also contain starches, sugars, gum, albuminoids, fats and crude fiber.¹⁹

PARTS USED: Tuber, leaves, Seeds, Root.²⁰

THERAPEUTIC USES

Gilodya is locally and traditionally used by tribals. Local healers of Rajasthan used tubers of this plant in raw or cooked form to gain strength and energy. Tubers of this plant are used as tonic and digestive. Tubers when boiled lose their bitterness and when pulped with milk form a sweet mucilaginous mixture which should be highly nutritious, judging from their chemical composition. The drug is used in Bihar in cold and eye diseases to cause sneezing, tubers are given in leucorrhoea, seminal debility, bowel complaints of children. They form an ingredient of aphrodisiac and tonic confections.²¹ Seeds, made into a paste, are used to cure deafness. while this juice is dropped into the ears. A decoction made from the tubers is used orally to ease the passing of urinary bladder stone.²² scorpion bite, Raw tubers are cooked and eaten by ladies to enhance fertility and vitality.²³ Previous research articles revealed that it cure for cough and cold,²⁴ Gastrointestinal problems,²⁵ Active principle of tuberous roots contains an alkaloid ceropegine which is active against diarrhoea and dysentery,²⁶ and Urinary disorders.²⁷ Immunomodulatory activity.²⁸

DISCUSSION

It was first mentioned by Acharya Sushrut under Madhur Varg. In Samhita and different Commentator of text opine that the name of Gilodya is from Anklodya, Galodya, Kalodya as a controversy and lastly Acharya P.V. Sharma concluded Gilodya as *Ceropegia bulbosa* Roxb. On the basis of morphological character and habitat described by Acharya Dalhan, Acharya Priyavrat Sharma has concluded its botanical identity as *Ceropegia bulbosa* Roxb. Different names of Gilodya mentioned in classical texts are Gilothi (dalhan), Bhutumbhi (Nighantu-adarsh), Pataltumbari (Nighantu adarsh), Gugilot (dalhan), Pataltumbi (Nighantu adarsh), *Ceropegia* species is represented by three varieties, i.e.; *Ceropegia bulbosa* Roxb. var. *bulbosa* and *Ceropegia bulbosa* Roxb. var. *lushii*(Grah.) Hook.f., *Ceropegia bulbosa* Roxb. var. *esculenta*. Tuber of this plant has been used for Balavardhan and nutritional purpose by villagers of Rajasthan.



Figure 1: *Ceropegia bulbosa roxb.var.bulbosa* Whole plant



Figure 2: *Ceropegia bulbosa roxb.var.bulbosa* With flower

CONCLUSION

Acharya Sushruta mentioned Gilodya under Madhur Varga, and Karma of Madhur Rasa is mentioned as Balya. Tubers of Gilodya is locally and traditionally used by tribal and villagers of Rajasthan to gain strength and energy. Wild edible tubers contained more crude fiber, crude protein and carbohydrate. These tubers were also found to be fairly good sources of dietary minerals and found to be a good alternative source of food to alleviate hunger and malnutrition.

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