

# Medicinal Perspective and Therapeutics Studies on *Gloriosa superba*

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**Abstract:** *Gloriosa superba* Linn., an glorious herbaceous climber belongs to the family Liliaceae found throughout India/ *Gloriosa superba* are having various medicinal important. The current work is based on the medicinal perspectives and therapeutically valves of the plant in Ayurvedic, Unani nand Shiddha filed of medicine. Plant is reported for the treatment by many formulations such as, shotha (inflammation / oedema), vrana (wound), gandamala (lymphadinitis), charmaroga (skin diseases), khalitya (hair loss), agnimandya (loss of apettite), arsha (piles), vatavyadhi (joint pain / arthritis) and many others. Root of plant is enlisted as an essential drug, to be kept in delivery room and especially indicated in delayed labour and expulsion of placenta.

**Keywords:** Medicinal use, *Gloriosa superba* and Therapeutics activities

## I. INTRODUCTION

*Gloriosa superba* Linn., (Liliaceae), a glorious herbaceous climber with underground tuberous rhizome is found throughout India, upto an altitude of 2000 m, in Khasia hills, Bihar, Odisha, W. Bengal, Gujarat, Konkan and Andaman Islands [1]. Root of this plant is used as an ingredient in many Ayurvedic classical formulations and indicated for various clinical conditions such as, shotha (inflammation / oedema), vrana (wound), gandamala (lymphadinitis), charmaroga (skin diseases), khalitya (hair loss), agnimandya (loss of apettite), arsha (piles), vatavyadhi (joint pain / arthritis) and many others.[2] Root of langali is enlisted as an essential drug, to be kept in delivery room[3] and especially indicated in delayed labour and expulsion of placenta.[4] Other than Ayurvedic classical texts, traditionally many tribals use this plant for curing various ailments. Despite of being a useful plant, information regarding its ethnomedicinal uses is not available in a single place. Ayurevda advocates to report those uses for the benefit of the society[5]. Many such uses of plants have been recorded during various survey studies and reported in different ethnobotany and ethno-medicinal research journals. Single hand information on an individual plant about its ethnic uses is lacking. Recently the demand of *Gloriosasuperba* has been increased due to its colchicine content, which is used in various clinical conditions such as acute gout,[6] acute pericarditis,[7] cirrhosis of liver,[8] severe constipation[9] etc.

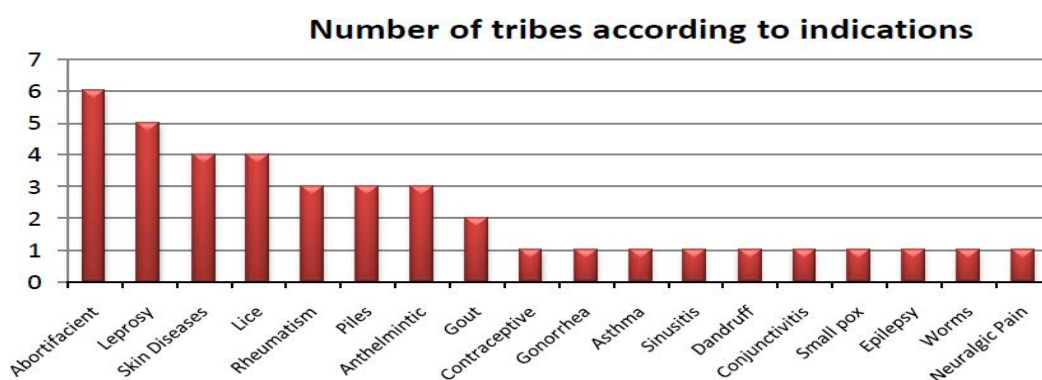
**Table 1: Various reported indications of Langali (*Gloriosa superba* Linn.)**

Sr. No.	Local name	Part used and form / mode of application	Uses	Tribal area
1.	Ulatchandal (B); Samansom (O); Selep Samonom (S); Daini (H)	20 gm root paste with 7 black pepper and goat milk	Induce abortion <sup>[10][11]</sup>	Oraon
2.	Kalihari (H)	Bulb boiled with mustard oil, leaves, seeds	Cancerous wounds <sup>[12]</sup>	Chhattisgarh
3.	Bhadrosi Kalihari	Plant	Edible <sup>[13]</sup>	Kalpi
4.	Kalihari (H)	Grinded rhizome with ghee orally	Induced abortion <sup>[14]</sup>	Gond
5.	Menthonni (Mal)	Root paste on bitten spot	Scorpion bite <sup>[15]</sup>	Mullu kuruma
6.	Langalya (Ba)	Tuber powder, leaf extract	Painful delivery, suppressed urination <sup>[16]</sup>	Jaunsuri
7.	Kalihari, Ranchendi, Kachla (Bh)	Aqueous extract of bulb	Arrow poisoning <sup>[17]</sup>	Jhabua
8.	Senganthal (Tm) Kanvalipoo,	Rhizome paste	Wound <sup>[18]</sup>	Malayali
9.	Kazhappaikilangu (Tm)	Tuber paste, seed	Tuber for inflammation and abortion, seeds for epilepsy <sup>[19]</sup>	Malayali
10.	Akkinichilam (Tm)	Tubers	Used as stomachic, anthelmintic and skin troubles <sup>[20]</sup>	Salem

An attempt has been made to gather information regarding the reported ethnobotanical uses of *Gloriosasuperba* from various ethnobotanical journals [10], research journals [15], and books [7]. The information obtained is arranged in a tabular form, concerning the use of the plant in different tribes, reported from different parts of India, local name of the plant, parts used, indications and mode of administration etc.

## II. RESEARCH BACKGROUND

Around 46 articles and 7 books related to ethnobotany were searched for traditional uses of Langali from which about 29 clinical conditions were observed. The claims regarding this plant are depicted in Table and number is depicted in Graph 1. The conditions are abortion, cancerous wounds, scorpion bite, painful delivery, suppressed urination, arrow poisoning, epilepsy, stomachic, anthelmintic, skin troubles, rheumatism, joint pain, asthma, sinusitis, contraceptive, gout, dandruff, head lice, antivenom for snakebite, small pox, piles, abdominal pain and intestinal worms. It is also useful in veterinary practices like foot and mouth disease (anthrax) and easy delivery of cattle. Various actions of *Gloriosasuperba* have also been evaluated scientifically which support the reported claims about this plant.



### 2.1 Critical Observations

Tribal's who only uses langali for many disease conditions but also in the classical texts of Ayurveda, langali is used in 158 formulations having an indication in more than 30 disease conditions like aparapatana (removal of placenta), vrana (vrana), agnimandya (loss of appetite), jvara (fever), grahani (irritable bowel syndrome), kasa (cough), hikka (hiccough), kushtha (leprosy), shvitra (leucoderma), visarpa (erysipelas), arsha (piles) etc.

### Regions of India

The plant is being used in about twelve regions/states of India viz. West Bengal (Purulia), Chhattisgarh (Raigarh), Madhya Pradesh (Balaghat, West Nimar, Jhabua), Uttar Pradesh (Meerut), Jharkhand, Kerala (Wayanad), Tamil Nadu (Kanyakumari, Salem, Kollu hills, Pallapatty, Coimbatore), Maharashtra (Jalgaon, Nandurbar), Odisha (Phulbani), Assam (North Cachar Hills), Rajasthan (Udaipur, Aravalli hills) and Karnataka (Bidar, Gulbarga).

### Tribes

The thirty five tribes who use Langali are: Santal, Munda, Oraon, Irular, Baiga, Gond, MulluKuruma, Pawara, Mavachi, Kokani, Tadvi, Kodava, Bhilala, Bhil, Garasia, Damor, Gamati, Kathodia, Menna, Kharadi, Mohradi, Randhor, Parmar, Meghwal, Chakma, Marma, Tripura, Kondareddi, Bhumij, Lambanis, Korwa, Korku, Dimasa, Malayali, Jaunsuri. The plant is also reported to be useful for leprosy, lice, piles, scorpion bite among 5, 4, 3 and 2 tribal communities respectively. The drug is used for cancerous wound, epilepsy, contraceptive, gonorrhoea, asthma, sinusitis, dandruff, small pox and conjunctivitis among one tribal community; though the drug is used for various diseases among the tribes further researches are required to support the reported data.

Colchicine is the major constituent of *Gloriosasuperba* and its demand is increasing day by day. This has led to exploitation of this plant all over the world. Because of over exploitation it is extinct (EW) in the wild in Darjeeling Himalaya, endangered (EN) in Himachal Pradesh, it is given endangered 'B' status in Himachal Pradesh and Tamil

Nadu, endangered plant of Asia and Africa. Seeing the profitability of this plant the farmers of southern districts of Tamil Nadu are practicing its mass cultivation which is necessary to cope up with the today's demand.

### III. CONCLUSION

Totally 36 tribes use langali (*Gloriosa superba* Linn.) as a medicament. It is being used as an abortifacient and for the management of 29 disease conditions such as leprosy, lice, rheumatism etc. Its major chemical constituent colchicine, is reported for its use in various clinical conditions leading to its over exploitation. *Gloriosasuperba* has been enlisted under endangered category and needs immediate attention.

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