

GARDENIA TURGIDA ROXB. (KHARHAR) AN IMPORTANT MEDICINAL PLANT OF CHHATTISGARH, INDIA

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ABSTRACT

Present study focused on traditional use of *Gardenia turgida* Roxb. an important medicinal small tree abundantly occurred in forest fringes of the Chhattisgarh state. Kharhar posses wide range of therapeutic properties for the treatment of various ailments in tribal area. The tribal traditional healers used Kharhar as single drug or in combination with other herbs like *Smilax zeylanica* L., *Piper longum* Linn., *Cordia macleodii* (Griff.) Hook. F. & Thoms, *Cassia fistula* L. etc. to enhance the efficacy of preparation. Traditional healers use this herb for a variety of ailments such as Leucorrhoea, Dogbite, Scorpion sting, Epilepsy, Stone, Stomachache, Snake bite, Diminished breast milk secretion (Lack of Lactation), Tuberculosis and Gout. During the course of study 72 preparations of Kharhar root for various ailments were recorded from tribal areas resides in the state. Study reveals that the Kharhar is an important medicine which needs to be a systematic research on phytochemical, pharmacological and clinical study.

Keywords: Kharhar, Traditional uses, Tribal community, Herb, Chhattisgarh

INTRODUCTION

Gardenia turgida Roxb. is a evergreen small deciduous medicinal tree belong to family Rubiaceae and distributed throughout the state and native to the tropical and subtropical regions of Southern Asia. It is used as a remedy for indigestion in children (Kirtikar & Basu, 2006). It is used by tribal medicinal practitioners as snake bites, scorpion sting (Kunjam, *etal*, 2013), food poisoning (Mishra, 2004), eye ailments of cattles, fever, abdominal colic, epilepsy, pimples, tubercular fistula, ringworm, cholera, smallpox, dysentery, pneumonia and snakebite (Asolker, *etal*, 2005). The fruit is used in religious ceremonies, though not eaten by the tribal (Ramnath, 2006).

Therapeutically active constituents of *G. turgida* Roxb. plant are saponin from bark decreased formation of histamine, and inhibited spasmogenic effects of slow – reacting substances of anaphylaxis in guinea pigs. Barks and wood, β – sitosterol, hederagenin, Me-esters of oleanolic and gypsogenic acids. Roots, gardenin A, B and E, oleanolic acid, α – amyrin, β – sitosterol and *d* – manitol reported (Asolker, *etal*, 2005).

A small deciduous tree. Branches rigid, stout armed with strong axillary straight often leaf – bearing spines. Bark smooth yellowish. Leaves elliptic obovate or orbicular, obtuse or acute, shining above, glabrous pubescent, narrowed into a short petiole. Flowers axillary. Male flowers in 3-4 flowered fascicles; female flower solitary, greenish white turning yellow. Corolla tubular petals oblong. Fruits globose, brown, seeds triangular, red.

G. turgida Roxb. is very common medicinal plant amongst the traditional medicinal practitioner in Chhattisgarh commonly known as Kharhar. The tribal use this herb for a variety of ailments Leucorrhoea, Gonorrhoea, Fever, Dogbite, Scorpion sting, Epilepsy, Headache, Stone, Stomachache, Snake bite, Cough and Cold, Headache, Toothache, Diminished breast milk secretion (Lack of Lactation), Male impotency, Tuberculosis and Gout.

MATERIALS AND METHODS

Chhattisgarh state is blessed with rich floristic and ethnic diversity. The state comprises 41.38 % forest out of total geographical area which shares 07.20 % of India's forest area. Hence, it has been declared as **Herbal State**, owing to its rich floristic diversity and encircling wealth of invaluable traditional medicinal knowledge base, inherent with folk healers. Chhattisgarh state extends between 17.00⁰ to 23.70⁰ North latitude and 80.40⁰ to 83.38⁰ East longitude.

It is divided into three distinct regions; Northern region, Central plain region and Southern region. The climate of Chhattisgarh is mainly tropical, humid and sub-humid. Mahanadi is major River of the state and other major rivers are - Sheonath, Hasdeo, Pairi, Jonk, Indrawati, Arpa and Maniyari. There were 20.8 million population of the state out of which 32 % are schedule tribes, major tribes are Gonds, Baigas, Binjhar, Muria, Halba, Pando, Uraon, Cherwa, Hill Korwa, Kamar etc. The information gathered from these regions using structured interview schedule and group discussion with traditional healers and other knowledgeable peoples. The information on plant part used, mode of administration for curing various diseases, has been recorded during April 2008 to February 2009. The present paper is based on empirical data collected from various tribal areas of the state, to accumulate all available information and data collected from tribal traditional medicinal practitioners on use of *G. turgida* Roxb. for the treatment of various ailments, which helps researcher in the new drug discovery.

RESULTS

During the course of study, Authors found that the root of *G. turgida* Roxb. is used by local traditional healers to cure various ailments, by preparation of paste, cold infusion, pills, juice and aqueous extract of plant, either single or in combination with other medicinal plants are as follows:

- For leucorrhoea 100 gms. of root, Gwarpatha root (*Aloe vera* (L.) Burm. f.) and Ramdatoon root (*Smilax zeylanica* L.) is boiled in 300 ml. of water, reduce to 75 ml., cooled filtered and given internally, twice daily for 15 days.
- In fever 10 gms. of root is pounded, mixed in water, filtered and given internally, twice a day for 2 days.
- For dogbite, 10 gms. powdered of herb mixed with Chind bark (*Phoenix acaulis* Buch.-Ham. Ex Roxb.) and Gangarua root (*Cyperus rotundus* L.) is made into pills (tablets), given once daily for 9 days.
- For scorpion sting, 5 gms. root is pounded, mixed with water, filtered and given internally, once only after sting. The cold infusion is also given internally, twice daily up to relief in cough and cold.
- In headache 5 gms. of root juice is poured through ear, once only. Some paste is applied externally.
- In stone 25 gms. of powdered root and Aaithi (*Helicteres isora* L.) root, mixed with 50 ml. water, given once daily for 3 days.
- For stomachache, 50 gms. of root is pounded, filtered and mixed with black pepper (*Piper longum* Linn.) and jaggery, given internally, once daily for 3 days.
- For chest pain 10 gms. of root together with black pepper (*Piper longum* Linn.) is grounded well and given twice daily for 3 days.
- In snake bite, 10 gms of root together with Doodhi root (*Euphorbia hirta* L.) is grounded well, mixed with water, filtered and given internally, twice daily for 2 days.
- In snake bite, 10 gms. of root together with Tendu root (*Diospyros melanoxylon* Roxb.) and Dahiman bark (*Cordia macleodii* (Griff.) Hook. F. & Thoms.) is grounded, mixed with water, given internally, twice daily up to relief.
- For cough and cold, 100 gms. of root is boiled in 400 ml. water, reduce to 100 ml., cooled and filtered, given internally, once daily up to relief.
- For gonorrhoea, 20 gms of root together with Kasturi bhindi (*Abelmoschus moschatus* Medik.) root is boiled with 300 ml. water, filtered and given internally, twice daily for 3 days.
- For gonorrhoea, 10 gms of root together with black pepper (*Piper longum* Linn.) is grounded, mixed with water, given internally thrice daily for 3 days.
- For gonorrhoea, 10 gms of root together with Van kapas (*Thespesia lampas* (cav.) Dalzell & Gibson) root is boiled with 100 ml. water, reduced to 25 ml., filtered and given internally, twice daily for 3 days.
- For gonorrhoea, 10 gms. powdered together with Chind bark (*Phoenix acaulis* Buch.-Ham. Ex Roxb.) and Dhanbahar root (*Cassia fistula* L.) is made, mixed with water and given internally, once daily for 3 days.
- In toothache, 10 gms. of fresh root is grounded, mixed with mustard oil, 2 drops poured on the ear once only.
- In diminished breast milk secretion (Lack of Lactation), 5 gms. of root is pounded, mixed with water and given internally, once daily for 3 days.
- In tuberculosis, 50 gms. of root is grounded, mixed with water, given internally, thrice daily for 3 days.
- For gout 5 gms of root together with Bhui champa root (*Blumea lacera* (Burm.f.) DC), Amaltas root (*Cassia fistula* L.) and Tendu root (*Diospyros melanoxylon* Roxb.) is grounded, mixed with water, filtered and given internally once daily for 5 – 6 days.

CONCLUSION

Gardenia turgida Roxb. is most frequently occurred species in the state, study revealed that use of Kharhar since long time by the traditional medicinal practitioners for the treatment of various ailments, were reported in different regions. Total 72 preparation of plant were recorded which are repetitively used in medicinal purposes, out of that 19 screened preparations presented. The above mentioned information have been correlated with available literatures, reflects that *G. turgida* Roxb. is very potent drug for treatment of diminished breast milk secretion (Lack of Lactation), gonorrhoea, snake bite and scorpion sting amongst the tribal communities. There is imperative need to focus on this important medicinal plant for new drug development.

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