

Ethnomedicinal use of Herbal Elixir *Tinospora Cordifolia* by Aborigines in Sonbhadra District, Uttar Pradesh, India

Abstract

Tinospora cordifolia, commonly known as Guduchi or giloya is considered as an elixir in Ayurvedic system of medicine. This plant is extensively used by the aborigines of Sonbhadra district for various ailments. The present paper accounts for its medicinal uses in different streams of ailments by the aborigines.

Keywords: *Tinospora Cordifolia*, Ailments, Aborigines.

Introduction

Guduchi or Neem guduchi is the local name given by the aboriginals of Sonbhadra district for *Tinospora cordifolia* (Willd.) Miers ex Hook. F. & Thoms is a large, glabrous, deciduous climbing shrub belonging to the family Menispermaceae found in India, Srilanka, Bangladesh and China (Jitendra *et al*, 2014; Joshi and Rajandeep,2016.).

Variety of active components are derived from the plant and their structures were elucidated. They belong to alkaloids, diterpenoid lactones, glycosides, steroids, aliphatic compounds and polysaccharides (Singh *et al*. 2003; Soham and Shyamashree 2012).

The district Sonbhadra is also known to have rich flora of medicinal plants and it occupies the southernmost part of Uttar Pradesh, surrounded in the north by Mirzapur and Varanasi districts of U.P., in the south by Surguja district of Chattisgarh, in south east by Palamu district of Jharkhand. The district lies in the Vindhyan plateau between 23°45' to 24°34'N latitude and 82°45' to 83°23'E longitude. The elevation above the mean sea level ranges between 315m to 485m. The total geographical area is about 6788sq. km (Singh and Singh,1992). Vast stretches of Sonbhadra region has remained unexplored. Ethnomedicinal exploration was conducted by the author in different localities of the district and number of valuable data regarding *Tinospora cordifolia* was recorded. The review of literature suggests that the district has been explored ethnobotanically by many (Singh *et al*,2002; Singh and Narain,2007; Singh,2017;Singh and Dubey2012; Kushwaha *et al*.2018).

The ethnomedicinal account for *Tinospora cordifolia* was collected through interviews, discussions and observations in the following ways. Many remote villages were visited to interact with tribals living there. Informations were recorded from the native people and these were compared from the published literature (Singh and Dubey,2012; Singh *et al*,2002; Singh and Narain,2007; Singh,2017; Gupta *et al*,2018; Singh *et al*.2003; Sinha *et al*.2004). The global research output in the field of *Tinospora cordifolia* research originated from 45 countries during 2001-2016, of which 41 countries contributed little on the research. The top most productive countries in *Tinospora cordifolia* research contributed 5 to 747 publications each during 2001-2016 and together accounted for more than 100% global publication and citation shared during 2001-2016. Among this India accounted highest publication share of 86.36% followed by USA(5.66%). The Indian *Tinospora cordifolia* research output published during 2001-2016 accounts of its share in medicines about 33.60% (Gupta *et al*.,2018). The therapeutic efficacy of *Tinospora cordifolia* extensively used in Indian System of Medicine has been established through modern testing and evaluation in different disease conditions. These studies place this indigenous drug a novel candidate for bioprospection and drug development for the treatment of diseases like fever, gastrointestinal problems, cough and cold, mental retardation, rheumatism, epilepsy, typhoid and pulmonary tuberculosis, diabetes, heart diseases, cancer etc. where satisfactory cure managements are still not available(Sinha *et*

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al., 2004). The plant used as medicine for various ailments are enumerated as follows.

Uses in Tribal Medicines of Sonbhadra District:

1. The tribals Baigas, living in the interior area of Salkhan make the paste of root of Guduchi. The pills are prepared and given along with honey in the treatment of fever for five days. Decoction of old stem along with the root in the treatment of periodic fever.
2. The inhabitants use the root with lime juice, sugar, salt orally in the case of diarrhea.
3. The leaves are chewed with the hot milk at night in the case of cough and cold.
4. The root and the stem are boiled in water for 10 minutes. The 10ml of the decoction prepared are taken orally with gur, in the case of mental retardation.
5. The paste of leaf and stem is applied with the mustard oil in the case of rheumatism.
6. The decoction of the root is given orally in the case of epilepsy.
7. The decoction of root is given in the case of typhoid.
8. The root is boiled in water until half of it is left. The decoction is then, taken orally daily for purifying blood in the case of pulmonary tuberculosis.
9. The root of dried plant is tied to the neck of epileptic patient.
10. Decoction of root and leaves are taken in equal ratio for 21 days empty stomach to cure any menstrual problem.
11. Leaf paste is mixed with onion and coconut oil and applied in roots of hairs to prevent hairfall.
12. Part of the stem and root is boiled and the decoction is given to the dengue patient.

Conclusion

The therapeutic effect of *Tinospora cordifolia* has been mentioned in Indian system of Ayurvedic literature, tribal medicine literature and its efficacy has been established through modern testing. A variety of constituents isolated that belong to different classes such as alkaloids, diterpenoids lactones, glycosides, steroids, phenolics, aliphatic compounds and polysaccharides are considered to contribute towards its medicinal properties. The above mentioned uses of the plant mentions the use of this elixir in number of ailments. The plant has also drawn attention globally and Indian output in medicine accounts 33.6%.

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