

## Study of some ethno medicinal plants used by tribals of Shahdol, Madhya Pradesh, India

<sup>1</sup> Dr. Nidhi Upadhyay. <sup>2</sup> Dr. Bramhanand Shukla

<sup>1</sup> Dept. of Botany, Pt. S.N.S Govt. P.G College, Shahdol, Madhya Pradesh, India

<sup>2</sup> Dept. of Zoology, Govt. I.G P.G College, Shahdol, Madhya Pradesh, India

### Abstract

Shahdol is one of the tribal district of Madhya Pradesh and plants are being used as medicine and pharmaceuticals by large numbers of tribal, rural and urban people. Several tribal communities like Gond, Baiga and Kol inhabit in the area. An Ethno botanical surveys had been carried out in the Shahdol district of Madhya Pradesh from 2015-2016. The investigation deals about 34 plant species which are used by tribals of this area. A record of 34 medicinal plant species which is belong to 28 Family and 34 Genera used by tribals to cure various ailments among human beings are given. Ethno medicinal information was gathering through interview to Ojha and medicnman for curing of diseases. The present paper deals with the ethno botanical study of Shahdol region for the preparation of an inventory. Details of medicinal plants are described alphabetically, Botanical names followed by family, local names, plants part used, and the ethno medicinal uses have been provided.

**Keywords:** Shahdol, Ethnobotanical plants, Traditional healers

### 1. Introduction

Shahdol District is situated in the northeastern part of the Madhya Pradesh provinces of India. Because of the division of the district on 15-08-2003, the area of the district remains 5671 km<sup>2</sup>. It is surrounded by Anuppur in the southeast, Satna & Sidhi in the north and Umaria in the west. The district extends 110 km from east to west and 170 km from north to south. This district is situated between 22°38' N latitude to 24°20' N latitude and 80°28' E Longitude to 82°12' E longitude. The District is located in the north-eastern part of the Deccan Plateau.

Shahdol district of Madhya Pradesh is appreciably inhabited by tribal population. Even today, the largest segments of tribal population are dependent on plant resources for the treatment of different disease and ailments. The tribal societies are closely linked to the forest ecosystem with which they traditionally live with harmony and tribal peoples still derive their daily needs from various plants. The ethno-medicinal particularly in rural and tribal areas of India are still playing a great role in treatment of disease. Keeping in view, the importance of such invaluable knowledge in healthcare management and development of new and novel medicaments, the present investigation has been taken up.

The tribal communities of this region are dependent on wild plants for the treatment of different diseases and ailment. The present ethno-medicinal study was carried out to record traditional knowledge on plants used for medicinal purpose by the tribal and local peoples of Shahdol district.

### 2. Methodology

Ethno botanical survey was conduct in different tribal inhibited areas of Shahdol district during 2015-2016. Extensive field trips were organized for collecting the plant species and data. The method adopted for collection of data was about medicinal uses of plants in the treatment of various diseases.

Ethno botanical information were collected by standard method of Jain and Rao (1977) <sup>[1]</sup>. A questionnaire was prepared to gather data for this purpose, the collected plant specimens were identified by using flora and others standard literature (Jain and Rao, 1991, Mudgal, *et al.* 1997, Singh, *et al.* 2001 and Verma, *et al.* 1993) <sup>[2-5]</sup>. Information on plants used for other than medicinal purpose is also given. Information on ailments, plant part used, formulation along with dose and duration etc. gathered from tribals have been enumerated.

### 3. Results and Discussion

The plant species studied were arranged alphabetically along with their family, Local name, Medicinal uses, plant part used are as under:

#### 3.1 Enumeration of Plants

1. *Aegle marmelos* Linn. (Rutaceae): Local name-Belpatra, Plant part used-Fruit, Uses-Pulp of fruits used for candy which is used for digestive problem.
2. *Alysicarpus vaginalis* (L.) DC (Fabaceae): Local name Chara- Sevro, Plant part used-Root, Uses-Paste of root is mixed with Tulsi leaf and crushed it then it is given in cough.
3. *Abutilon indicum* (Linn.) Sweet. (Malvaceae): Local name-Kanghi, Plant part used-Leaf, Uses-20 gm leaf powders mixed with 400 gm wheat flour and prepared bread and take it at night for 30 days to treat uterus displacement.
4. *Ageratum conyzoides* Linn. (Asteraceae): Local name-Sahdehi, Plant part used-Leaf, Uses-Leaf juice is given in leucoderma daily during morning for about one month.
5. *Adhotoda zeylanica* Medic. (Acanthaceae): Local name-Adusha, Plant part used-Leaf, Uses-Two leaves are chewed and swallowed daily in morning for six month then it cured tuberculosis.

6. *Andrographis paniculata* (Burm. f.) Wall. ex Nees (Acanthaceae) Local name - Chhota chitra, Plant part used- whole plant, Uses- The whole plant is boiled in water and the filtrate is given in malarial fever. Plant is kept overnight and its leaves are internally taken in intestinal worms. Its leaves are pounded with mustard oil and externally applied in fever.
7. *Annona squamosa* Linn. (Annonaceae): Local name - Sitaphal, Plant part used-Leaves, Uses- The leaf juice is given orally as anthelmintic.
8. *Azadirachata indica* A. Juss. (Meliaceae): Local name-Neem, Plant part used-Bark, Uses-40 gm bark of Neem mixed with 40 gm bark of *Acaccia nelotica* (Linn.) Willd ex. Del. Boiled and filtrated it and 50 ml is taken in empty stomach in the early morning for 7 day to treat 'Swet-Pradar' (white discharge).
9. *Butea monosperma* (Lam.) Taubert. (Fabaceae): Local name-Chhiwla/ Palas, Plant part used-Seed, Uses-Seeds rubbed with water on hard substract and paste applied over scorpion bite.
10. *Balanites aegyptiaca* (L.) Delile (Balanitaceae): Local name-Hingot, Plant part used-Fruit, Uses- Ripe fruit pulp is mixed in cow's milk and given it twice in a day to the children suffering from pneumonia.
11. *Bombax ceiba* L. (Bombacaceae): Local name-Semal, Plant part used- Root, Uses-Root is chewed by males to increase sexual vigor.
12. *Boerhavia diffusa* Linn. (Nyctaginaceae): Local name-Patharchatta, Plant part used-Root, Uses- The whole plant with leaves of *Vitex negundo* L. is boiled, filtered and the filtrate is given to treat elephantiasis for five days.
13. *Buchanania lanzan* Spreng. (Anacardiaceae): Local name- Char, Plant part used- Bark, Uses- Stem bark with sugar candy mixed together, powdered and given in general weakness.
14. *Cassia fistula* Linn. (Caesalpiniaceae): Local name-Amaltas, Plant part used-Fruit, Uses- The fruit pulp is boiled in water and filtrate with sugar is taken in rheumatism for five days.
15. *Canscora diffusa* (Roxb.) Gentianaceae): Local name-Chirata, Plant part used-Whole plant, Uses- The whole plant is kept in water over night and the filtrate is given internally in stomach trouble and also used as blood purifier.
16. *Calotropis gigantean* (Ait.)R.Br. (Asclepiadaceae): Local name- Aak, Plant part used- Stem, Uses- Latex with mustard oil is boiled and externally applied externally in body pain for three days.
17. *Casearia elliptica* Willd. (Flacourtiaceae) : Local name-Chilla, Plant part used-Root, Uses- The powdered root is taken internally in stomach disorder for three days.
18. *Centratherum anthelminticum* (L.) (Asteraceae): Local name- Jangli jeera, Plant part used - Seeds, Uses- The seeds are pounded and taken to remove intestinal worms daily for three days.
19. *Cynodon dactylon* (Linn.) Pers. (Poaceae): Local name-Doob, Plant part used-Whole plant, Uses- *Hibiscus rosasinensis* flower, old molasses and whole plant are crushed with rice washed water and it is given in empty stomach to treat menorrhoea.
20. *Centella asiatica* (L.) Urb. (Apiaceae): Local name-Brahmi, Plant part used- Leaf, Uses-One teaspoonful dried leaves powder mixed with sugar and taken daily to increase memory.
21. *Carica papaya* Linn. (Caesalpiniaceae): Local name-Papita, Plant part used-Fruits, Uses-Latex of young fruits is dried and given in cow's milk two times given it for abortion.
22. *Clitoria ternatea* Linn. (Fabaceae): Local name-Aparajita, Plant part used- Root, Uses- Decoction of root is given daily for three days in dropsy.
23. *Convolvulus microphyllus* Sieb. (Convolvulaceae): Local name- Shankhpushpi, Plant part used- Whole plant, Uses- Decoction of the whole plant about one tea spoon is given for three days to treat insomnia.
24. *Costus speciosus* (Koen.) Smith (Zingiberaceae): Local name- Keokand, Plant part used- Rizome, Uses- The paste of the rhizome is applied externally in burning sensation in eyes for three days.
25. *Curculigo orchioides* Gaertn. (Hypoxidaceae): Local name- Kali musli, Plant part used- Root, Uses- Root paste is applied externally on head for three days.
26. *Careya arborea* Roxb. (Lecythidaceae): Local name-Jangali Bhindi, Plant part used- Root, Uses- The fresh root is chewed in snakebite.
27. *Dillenia pentagyna* Roxb. (Dilleniaceae): Local name-Bhangra, Plant part used- Whole plant, Uses- The whole plant is externally applied in skin diseases.
28. *Grewia hirsuta* Vahl (Tiliaceae): Local name-Gursakari, Plant part used- Root, Uses- The root paste is applied externally on swollen testicles for three days.
29. *Gloriosa superba* Linn. (Liliaceae): Local name-Kalihari, Plant part used- Root, Uses- The root paste is applied externally for easy delivery.
30. *Holarrhena pubescens* (Buch.- Ham.) (Apocynaceae): Local name- Doodhi, Plant part used- Stem, Uses- The paste of stem bark is applied externally in joint pain for three days. Stem bark with kali mirch (*Piper nigrum*) powdered and taken orally in malarial fever for three days or till the disease is not cured.
31. *Haldina cordifolia* (Roxb.) (Rubiaceae): Local name-Haldu, Plant part used- Reproductive parts, Uses- The flower buds are made into paste and externally applied in body pain.
32. *Nyctanthes arbor-tristis* Linn. (Oleaceae): Local name-Harsingar, Plant part used- Stem, Uses- The stem bark with (*Terminalia arjuna*) bark is pounded and the paste is applied externally in internal injuries for three days.
33. *Syzygium cumini* (L.) Skeels. (Myrtaceae): Local name-Jamun, Plant part used-Seed, Uses- 5 g powdered dried seed taken twice daily for curing diabetes.
34. *Mucuna pruriens* (L.) DC (Fabaceae): Local name-Kojda, Plant part used-Root, Uses- Root extract is given with water in empty stomach to sexually weak male.

During the survey plant and plant parts are used for medicine in Shahdol to treat different diseases have been explored. Analysis of the data revealed that Root and Leaves are mostly used for various disease followed by Fruits, Seeds Bark and whole plant. The number of plant species used by the tribe for curing some of the important and common diseases, shown in the parenthesis are digestive problem, cough, uterus displacement, leucoderma, tuberculosis, white

discharge, scorpion bite, pneumonia, increase sexual vigor, male impotency, menorrhoea, increase memory, abortion, diabetes and sexually weakness. The present communication documents 34 plants species belonging to 28 Families 34 genera that are traditionally valued. Different plants part is used in different diseases. The plants used are found growing and are available in the vicinity and in many cases are immediately available as therapeutic. Different plants species were used in each treatment.

#### **4. Conclusion**

Our studies shows that tribal of Shahdol are dependent upon the plant resources for medicine and other purposes. Our data proved a baseline to search new drug. It is helpful to Pharmaceutical Company to discover a new drug. Further work in ethnobotanical studies is in progress. The flora of Shahdol provides very good source of many medicinal plant used as traditional medicine.

#### **5. Acknowledgement**

Authors are thankful to HOD, Pt. S.N.S. Govt. P.G. College, Shahdol for valuable suggestion and carried out this work.

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