



Traditional use of indigenous plants in Betul district of Madhya Pradesh to cure Diarrhoea and Dysentery

Sapan Patel

Received: 16-04-2010

Revised: 18-05-2010

Accepted: 17-09-2010

Abstract

A survey of medicinal plants of different rural and forest area of Betul district was conducted. It was found that the drug preparation of plant origin is commonly used by tribal local inhabitants and folk practitioners for the treatment of diarrhoea and dysentery disease. About 7 plant species belonging to 6 families are described along with the method of drug preparation, mode of administration, probable doses and duration of treatment. The aim to study is not only to prescribe the remedies for disease in human beings but also an endeavour to draw attention for the need of a detailed study on medicinal plants of the area, which could provide better and efficient remedies for diarrhoea, dysentery and many other dreadful diseases. The paper enumerates the traditional uses of more than 50 plants used by tribes inhabiting the Betul district. Information on the medicinal and other traditional uses gathered from the tribal together with their botanical identity is presented. The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing from the face of earth due to advent of modern technology and transformation of traditional culture. The collection of information about natural flora, classification, management and use of plants by the people holds importance among the Ethno botanists.

Keywords: *Ethnobotany, Ethnomedicine, Gond, Korku, Bhil, Medicinal Plants*

Introduction

Ethnomedicine is a new branch of ethnobotany, which is mainly based on the ancient knowledge of the plants used in the traditional medicine in the modern world. The traditional Ayurvedic system is mainly based on the knowledge, experience and belief of thousands of years of ancient people living in remote areas. The system makes use of plants products in eradication of common diseases. A vast majority of our population, particularly those living in villages mainly depends on herbal remedies. This knowledge has been acquired and passed from one generation to another. A good number of herbal remedies have been acquired from their knowledge, particularly for the treatment of diarrhoea and dysentery. However, no scientific basis regarding their identity and efficiency was available except that in the treatises

Author's Address

Institute of Environment Management & Plant Sciences
Vikram University, Ujjain, M.P. (India)
E-Mail: sapanpatel79@gmail.com

of Ayurveda, which indicates the importance of plants in human life.

Ayurveda is developed on the basis of this diversity of knowledge utilizing plants as the richest source for health management. National Academy of Ayurveda, Ministry of Health and Family Welfare identified 2159 medicinal plants for various therapeutic purposes (Sharma, 1998). The tribes, who either worked as labourers or cultivated crops inherited rich traditional knowledge about the flora investigated and used to apply this knowledge for making crude phyto-medicines to cure infections as simple as cold to as complicated as cancer. These crude herbal medicines are based not only on traditional knowledge but also on rituals and beliefs.

A large area of Madhya Pradesh is occupied with hills covered by forests. These forests are not only abundant in flora but also it has a wide diversity. District Betul is in ecological zone at a longitude

of 21°22' to 20°24' N and latitude of 77°04' to 78°33' E. Betul is one of the tribal population districts of M.P. This district comes under Satpura plateau and Jawar and Wheat crop zone from the agriculture point of view. Geographical area is 1007.8 thousand hectare out of which 416.7 thousand hectare land is under cultivation. 381.1 thousand hectare is under Kharif and 120.3 thousand hectare under Rabi. The district consists of nearly 1.76 Lakh agricultural families out of which 46% belong to tribe category. Average agricultural land 2.90 thousand hectors under proprietorship. Irrigation area from all sources is 97.7 thousand hector and irrigation percentage is 23 in the district. Crop density is 127%. Average rainfall is 1083.9 mm in the district.

Betul is predominantly a forest and agricultural district, which is surrounded by Chhindwada, Hoshangabad, Harda and Khandwa respectively at West, North, East and South. Betul district is surrounded by Satpura hilly track and two rivers namely Machna and Tapti originated from this place. The total population of Betul district is approximately 13, 94421 millions as per 2001 census and it is tribal dominated area. The total agriculture land consists of 43,300 hectares. Total forest area consist about 4085.043 sq. kms., which is rich in the wild fauna and flora. Recently Government has declared Satpura hills as Biosphere reserve looking to its rich biodiversity. The Betul district is surrounded by dense deciduous forest. 95 % rural population dominated by tribals inhabit in forest areas of Multai, Athner, Chicholi, Bhansdehi and Betul bazaar, Chirapatla, Ghoradongri and Bhimpur. Rest are still living in urban areas. The tribal group like Bhil, Korkou, Banjara and Gond are involved in honeyculture, basket netting, mat making and habituated with the uses of medicinal plants for their ailments. Till date, in this dense forest, these tribes have least medicinal amenities. They have been using herbal medicines for the treatment of diseases like malaria, dengue fever, wounds, dysentery, diarrhoea, cough and cold. They know the rare plants found in the deep forest areas of Betul district, which are used for various treatments.

Materials and Method

The survey work for medicinal plants was performed during winter season I year 2007 to 2008. During the course of present study, survey

was carried out of Betul district of Madhya Pradesh. During the survey work interview were taken from the tribal man, hakeems, vaidyas and the knowledge revealed by them was collected and compiled in the scientific form. It was confined to the adjacent area including some remote tribal places of Betul district. The availability of plants were recorded only when more than one conformation got. Various applications and properties of the plants were known and recorded from the local tribal, rural people including local Hakeem and Ayurvedic practitioner of Betul district. Mostly the male members of tribal community gave the information's and female did not come out due to their social customs. The plants were collected from the places where the local people have been using them for recovering diseases. The medicinal plants were used by tribals for recovering malaria, dengue fever, wounds, dysentery diarrhoea, cough cold and breathing problem. Plants were collected based on tribe's knowledge and folklore. The surveyed plants were identified with the help of local tribal people and the taxonomist. The voucher specimen of each plant is procured in "Herbarium" and maintained at the laboratory. The present study reports more than 50 plants of Betul district to be used in more than 16 diseases by the tribals. In which 7 plants are very much useful to cure diarrhoea and dysentery.

Results and Discussion

The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing from the face of earth due to advent of modern technology and transform of traditional culture. The collection of information about natural flora, classification, management and use of plants by the people holds importance among the ethno botanists. The local people and researchers face the challenging task of not only documenting knowledge on plants, but also applying the results of their studies to biodiversity conservation and community development. With a deep concern and reverence for the vast diversity of flora that our country enjoys and with sense of realization about the invisible therapeutic properties of this phyto diversity, the current research is undertaken.



Total of 50 plants have been collected and their detailed information was proposed on the basis of folklore and their use. It has been observed that there is an inherent transfer of knowledge from one generation to another in some of the families. Generally the villages do not reveal their knowledge and it is very difficult to get the information from them. Still making continuous contacts with them and asking questions on different aspects. Some useful information from them was obtained which has been tabulated in the scientific form as shown in Table. 1. It has been noticed that out of 7 plants belonging to 6 families. The plants were of family Rutaceae, Liliaceae followed by Carssulaceae, Convolvulaceae, Euphorbiaceae, and Moraceae. As for as there part used for the medicinal purposes, leaves of 4 plants, Root of 1 plant, arial part and flower of 1 Plant, fruit of 2 plant and stem, latex, bark, bulbs of 2 plants as listed in Table.1.

The plants on the basis of folklore have been scientifically updated and the list was prepared pertaining their scientific names, vernacular names, parts used, and their family. Following the

method of Jain 1995, the information regarding the use of medicinal plants available in the local area for treating various ailments and disease was collected by directly contacting the elderly villagers, herbal doctors and the persons who have knowledge about this medicinal plants in the tribal community inhabiting the Betul, Chicholi, Bhansdehi, Athner, Betul bazaar and Multai areas which are situated around the Satpura hills. The plant materials were collected and carefully handled for identification by authentic sources. The medicinal value of each plant was enumerated in the following pattern- binomial, family, vernacular names, Parts used and ethnomedicinal uses. Gupta, (1994) has observed the prospects and perspectives of natural plant products in medicines and reported of their different medicinal effects in many ailments. Saxena and Sahu, (2006) have surveyed 22 plants from tribal area of Raisen district M. P. for ethnomedicinal effects. Such kind of studies have also been conducted and reported by Anish *et al.* 2000, Amusan *et al.* 2002, Saxena *et al.* 2001, Dixit and Pandey 1984, Chopra *et al.* 1996, and Tenguria *et al.* 2006..

Table: 1 List of medicinal plants to cure diarrhoea and dysentery

S.No.	Botanical name	Vernacular name	Family	Parts of plants	Medicinal Uses
1.	<i>Aegle marmelos</i> Roxb.	Bel	Rutaceae	Leaf and Fruit	Diarrhoea
2.	<i>Allium cepa</i> Linn.	Pyaz	Liliaceae	Bulbs, Leaf	Antibacterial in dysentery, bronchitis, malaria fever, asthma, cough
3.	<i>Asparagus racemosus</i> W.	Satawari	Liliaceae	Roots, Rhizome	Diarrhoea, Dysentery
4.	<i>Bryophyllum calycinum</i> Lam.	Patharchatta	Crassulaceae	Leaf juice	Dysentery, Diarrhoea, Insect bite, Antiseptic
5.	<i>Cuscuta reflexa</i> Linn.	Amarbel	Convolvulaceae	Stem, Leaf	Eczema, Diarrhoea, Gastric troubles
6.	<i>Euphorbia pulcherrima</i> Linn.	Lal dudhi	Euphorbiaceae	Aerial parts, Flower, Latex	Burning, Micturation, Milch Problem
7.	<i>Ficus glomerata</i> Linn.	Gular	Moraceae	Bark, Fruit	Diabetes, Dysentery, Leucoderma

Acknowledgement

Author is very great full to the entire Villagers local ayurvedic practitioner, vaidyas, taxonomists

and people of Betul district for their knowledge on herbal medicine.



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