



Pteridophytic Medicinal Plants Used by the Gond Tribe of Korba District, Chhattisgarh, India

KEYWORDS

Ethno-medicine; Gond tribe; ITK; Korba

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ABSTRACT

The present communication deals with the indigenous traditional knowledge (ITK) on some ethno-medicinal plants used by the Gond tribe of Korba district, Chhattisgarh, India for treating various health ailments. Tribal's people are the ecosystem people who live in harmony with the nature and maintain a close link between man and environment. The Gond tribes use many of the pteridophytic plants species in and around the vicinity in various therapeutic uses including treatment of common skin ailments like wounds, eczema as well as gastro-intestinal problems such as diarrhoea, dysentery, and snake bite, fracture of bone, etc. The present paper provides information of 16 plants belonging to 12 families used by the tribe as medicine in the treatment of various diseases.

INTRODUCTION

Tribal's people are the ecosystem people who live in harmony with the nature and maintain a close link between man and environment. Plants are the basis of life on earth and are central to people's livelihoods. The life, tradition, culture of tribals has remained almost static since last several hundreds of years. In developing countries, plants are the main source of medicine. The World Health Organization has estimated that over 80% of the global populations rely chiefly on traditional medicine (Akerle, 1992). In a short time, ethno-botany experienced a mushrooming growth in the world, aims at investigating traditional knowledge system. There are over 53 million tribal people in India belonging to 550 communities of 227 ethnic groups (Gangwar, and Ramakrishnan, 1993; Nautiyal et al., 2000). India is one of the world's 12 mega biodiversity centers with existence of over 45000 different plant species of these, about 15000-20000 plants have higher-quality medicinal value. Around 7000-7500 species are used for medicinal purposes by traditional communities (Subbu and Prabha, 2009). Due to their continuous utilization without following sustainable procurement techniques, some of these plant species have come in the category of rare, threatened (Swe and Win, 2005; Pandey and Bisaria, 1997; Rai and Pandey, 1997; Pandey, 2000; Arjariya and Chaurasia, 2008). Today about 65% of the Indian population depends on the traditional system of medicine (Timmermans, 2003).

THE GOND TRIBES

The Gond tribe is the second most population tribe in India and largest tribe in Central India. The Gond, famous for their warrior skills, is believed to have settled in the Gondwana region between the ninth and the thirteenth centuries AD. The region of Gondwana occupied some parts of Central India such as southeastern Madhya Pradesh, eastern Maharashtra, Chhattisgarh, northern Andhra Pradesh, western Odisha, and eastern Uttar Pradesh and included several Gond Dynasties. An Austrian Anthropologist explained the customs and traditions of Gond (Haimendorfe, 1979). They were shifting cultivators in the past but they have become almost settled cultivators.

STUDY AREA AND PHYSIOGRAPHY

Present study has been undertaken among the Gond tribe residing at Korba district. The area lies between Latitude 220 01' to 230 01' Longitude 820 08' to 830 09'. Korba is blessed with lush green forest cover, where a sizeable number of tribal's populations are found. The Advises in the forest areas live in tandem with the environment and have retained their distinctive cultural characteristics and traditional observances. The area is represented by two major geological formations Vindhyan System and Gondwana System. A variety of Soil is met with in the area, among these; sandy soil, red soil and yellow lateritic and patches of black cotton soil are common. The climate of the district is hot and damp to dry with four distinct seasons. These are, summer season from March to June, rainy season from July to September, post rainy season from the end of September to October and winter season from November to February.

The vegetation of the districts is predominantly dry deciduous type. Geology plays a significant role with regard to the composition of forest in the district. The two distinct geological formations comprise two different composition of forest. The Vindhyan system consist of dry mixed forest found scattered on the drier southern and western aspects of hills and slopes in the northern parts of the districts, and along riverine tracts in the southern parts. The Gondwana System is situated in the central and southern parts of the district. It carries sal forests on the hilly moist part in the south and other scattered and localized patches which receive more precipitation or comprising humid conditions.

MATERIALS & METHOD

The present study is based on extensive and intensive field surveys with 2012 to 2013. The interviews were conducted from Gond tribes to collect various information's of plant species used by them for the treatment of various diseases and ailments. After completion of each field trip of about 15 days, these specimens were brought to Herbarium, BSIP, Lucknow from where they were studied and identified with the help of available books on flora and monographs (Beddome, 1883; Bir, 1987; Dixit, 1984; Dixit, 1989; Dixit & Singh 2005; Panigrahi and Dixit, 1966; Tewari, 1964).

RESULT AND DISCUSSION

About 16 species of pteridophytes (Table 1) belonging to 13 genera & 12 families were found to be in use by the Gond tribe for medicinal purposes. Gond tribes use many of the pteridophytic plants species in and around the vicinity in various therapeutic uses including treatment of common skin ailments like wounds, eczema as well as gastrointestinal problems such as diarrhea, dysentery, and snake bite, fracture of bone, blood dysentery etc. Most common mode of usage is as a tonic in different forms such as juice, extract, paste, infusion, powder etc. Gond community is not untouched by the winds of change and as modern ideas and scientific know how makes its presence felt in the area, traditional customs and practices are losing ground especially among the younger generation. However, traditional systems of medicine are still patronized by a few elders of the community and they get their medicinal samples or *Jadi-buti* (medicinal plant products). However, the traditional systems of medicine are still patronized by a few elders of the community known as traditional doctor of the Gond tribal's and community people get their medical treatment of *Jadi-buti* (medicinal plant products) on their recommendation. It has also been observed during our visits in the areas that the elders of the community very happily identify younger and trained them to implement this traditional knowledge in order to preserve this classical culture from generation to generation. The 'ferns and ferns allies' species have been found to be of great medicinal values. Instead of exploiting the 'ferns and ferns allies' for their economic value and ornamental beauty, care should be taken for their conservation (Benamina and Manickum, 2007).

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Table 1: Table showing botanical name, family and local names along with their uses:

Plant Name/ Local Name/ Families	Part Use	Medicinal Uses
<i>Adiantum capillsveneris</i> Linn. f. (Adiantaceae) 'Ratanjot'	Whole plant	Powder of rhizomes is given as an antidote against dog bite and snakebite. The extract of leaves is taken orally and paste of leaves is applied on the lower portion of stomach for clear and early release of urine. Dried rhizome mixed with water is given to women orally once during menstrual period for sterility.
<i>Adiantum incisum</i> Forsk. (Adiantaceae) 'Ratanjot'	Leaves	About fifty leaves are boiled with coconut oil and applied to cure various skin diseases. Paste of root is used to cure eczema.
<i>Adiantum lanulatum</i> Burm. f. (Adiantaceae) 'Hansraj'	Leaves	Fresh leaves are crushed and applied to stop bleeding, healing of wounds.

<i>Ampelopteris prolifera</i> (Retz.) Copel. (Thelypteridaceae) 'Bhuisag'	Leaves	Aqueous extract of about fifty leaves are used in a dose of one teaspoonful once a day at night for seven days to kill intestinal worm; it is also taken thrice a day for one month as blood purifier.
<i>Ceratopteris siliquosa</i> (Linn) Copel. (Ceratopteridaceae) 'Panighas'	Whole plant	The paste of plant is applied on cuts and wounds to check bleeding.
<i>Dryopteris cochleata</i> (Ham. ex D. Don) C. Chr. (Dryopteridaceae) 'Jatashankari'	Whole plant	Juice of the dried rhizome is given in epilepsy and leprosy. The paste of fresh rhizome, stem and stipe is externally applied on cuts, wounds, ulcers, swelling and pains.
<i>Equisetum arvense</i> Linn. (Equisetaceae) 'Harjor'	Whole plant	Plant powder mixed with mustard oil is used in the treatment of bone fracture, backache and in muscular pain.
<i>Helminthostachys zeylanica</i> (Linn.) Hook. f. (Ophioglossaceae) 'Kamraj'	Rhizomes	The powdered mixture of rhizomes of this plant and 'bach' (<i>Acorus calamus</i> Linn.) is taken once a day with milk to treat impotency. Rhizome is used in dose of one teaspoonful twice a day for seven days to treat cough, acute diarrhoea and dysentery.
<i>Lygodium flexuosum</i> (Linn.) Sw. (Schizaeaceae) 'Kalijar'	Whole plant	Decoction of leaves is used in dose of one teaspoonful thrice a day for five days to treat acute diarrhoea and dysentery. Paste of leaves is used to treat skin diseases and applied on the piles.
<i>Marsilea minuta</i> Linn. (Marsileaceae) 'Susnari'	Whole plant	The powdered mixture of this plant and turmeric is used as tooth powder to get rid of toothache and to treat caries characterized by gradual decay and disintegration of soft or bony tissue or of a tooth.
<i>Ophioglossum reticulatum</i> Linn. (Ophioglossaceae) 'Ekpatia'	Leaves	The paste of fresh fronds is used to check bleeding from cuts and early healing.
<i>Pteris longifolia</i> Linn. (Pteridaceae) 'Tatkhar'	Whole plant	Paste of plant is used to treat ulcer marked by an open sore or lesion of the skin or mucous membrane accompanied by sloughing of inflamed necrotic tissue.
<i>Pteris vitta</i> L. (Pteridaceae) 'Tatkhar'	Leaves	An extract of leaves is taken in dose of one teaspoonful thrice a day for seven days to treat acute diarrhoea and blood dysentery.
<i>Salvinia natans</i> (Linn.) All. (Salvinaceae) 'Jalmagan-iyā'	Whole plant	The paste made by about fifty fresh plants is applied for a week to treat ringworm and eczema.
<i>Selaginella bryopteris</i> (L.) Baker (Selaginellaceae) 'Sanjivani'	Leaves	Paste of young leaves with sugar is taken in stomachache, urinary tract inflammation in children.
<i>Tectaria coadunata</i> (Wall. ex Hook. et Grev.) C. Chr. (Tectariaceae) 'Jatamas'	Whole plant	Extraction of dried rhizome, stem and stipe is used in respiratory disorders like cold, cough, asthma and bronchitis. Fresh rhizome and fronds paste is used in insect bites or getting relief in centipede bite.

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