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ETHNOMEDICINAL PLANTS OF BETUL DISTRICT, MADHYA PRADESH

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ABSTRACT

The paper deals with ethnomedicinal information on 54 plant species (belonging to 33 families) collected from field survey amongst three tribes *viz.*, Gond, Korku and Gaiki of Betul district, Madhya Pradesh. An analysis of data has indicated that eight plant species are employed as antidote to snake bite and scorpion sting, six to treat fever, five for rheumatism, four to treat cold, cough, skin diseases, as anthelmintic and tonic, and three for stomach diseases while two species to treat impotency, cuts, wounds and as diuretic. On the other hand, only a single species has been referred for a number of other ailments like eye diseases, spermatorrhoea, spleen enlargement, tuberculosis, mouth sore, boil, asthma, liver disorder, toothache, bone fracture, abortifacient, antifertility, and in veterinary. Further, a comparison with the concerned literature has revealed that 23 ethnomedicinal uses of plants have not been reported earlier.

INTRODUCTION

Betul district is located in the southern part of Madhya Pradesh and is surrounded in the north by Hoshangabad district, in the south by Amravati district (Maharashtra), in the east by Chhindwara district and in the west by Hoshangabad, East Nimar and Amravati districts. It lies between 21° 22' and 22° 24' N and 77° 04' and 78° 33' E extending over an area of 10,043 km². The district is enriched with a variety of plant resources owing to the occurence of different forest types *viz.*, southern tropical moist deciduous teak forests, southern tropical dry deciduous forests, dry teak forests, Boswellia forests, bamboo forests, tropical riparian fringing forests and southern tropical thorn forests (Kumar and Khanna, 1998). The entire area is inhabited by a large section of rural population and different tribes. The most important tribes are Gond, Korku and Gaiki which comprise of nearly 37 per cent of total population of the district. These tribal people usually live amidst or near the forests and exploit the plant resources of the forests for their day-to-day requirements. During extensive survey of the area, ethnomedicinal information on 4 plant species has been collected and this has been described in the present paper. A perusal of literature (Kirtikar and Basu, 1935; Anonymous, 1948-76; Chopra *et al.*, 1956, 1967; Uphof, 1959; Maheshwari and Singh, 1965; Jain, 1968; Anonymous, 1986; Agarwal, 1986; Caius, 1986; Nayar *et.al.*, 1989; Jain, 1991) has indicated that 23 ethnomedicinal uses of plants have not been reported earlier and these have been marked with an asterisk.

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METERIAL AND METHODS

Voucher plant specimens and data on ethnomedicinal information have been collected from the field following the methods of Jain (1965) and Jain & Rao (1976). In all

26 tribal villages were visited and attempt was made to gather the information from medicine men/women or knowledgeable persons of the villages. In every case, effort has been made to record only those uses whose effectiveness has been confidently claimed by the tribal people.

Under enumeration, all the ethnomedicinal information has been described under the corresponding plant name that have been arranged alphabetically. The correct botanical name is followed by family name within parenthesis, local name (if known), medicinal uses and locality of information and field number of collection. All the specimens have been deposited in the herbarium of Botanical Survey of India, Central Circle, Allahabad (BSA).

ENUMERATION

Achyranthes aspera L. (Amaranthaceae) 'Chirhit'

The extract of plant is used two times a day to treat cough and dropsy. It is also given as antidote to snake bite.

Loc.: Bhainsdehi, Kumar 50155.

Actiniopteris radiata (Sw.) Link. (Actiniopteridaceae)

The extract of plant is given two times a day to expel worms from the stomach.

Loc.: Dharakhoh, Kumar 51034.

***Adhatoda zeylanica** Medik. (Acanthaceae) 'Andusa'

The decoction of leaves is given three times a day to cure tuberculosis.

Loc.: Multai, Kumar 50119.

Adiantum incisum Forssk. (Adiantaceae)

The extract of plant is prescribed three times a day to treat diabetes.

Loc.: Baretha Ghat, Kumar 50853.

A. philippense L. (Adiantaceae)

The extract of plant is given four times a day to check fever.

Loc.: Baretha Ghat, Kumar 50802.

Alternanthera sessilis (L.) R. Br. ex DC. (Amaranthaceae) 'Chirhit'

The extract of leaves prepared in mustard oil is locally applied in rheumatism.

Loc.: Tapti, Kumar 50071.

***Amorphophallus paeoniifolius** (Dennst.) Nicolson (Araceae) 'Bhui-sitaphal'

The paste of corms is said to be efficaceous in treatment of rheumatism.

Loc.: Tapti, Kumar 50967.

***Barleria prionitis** L. (Acanthaceae) 'Aagru'

The decoction of leaves is used as gargle to cure mouth sore.

Loc.: Multai, Kumar 50126; Kursana.

***Boerhavia rapens** L. (Nyctaginaceae)

The paste of leaves is applied as antidote to scorpion sting.

Chopra *et al.* (1956) have reported the roots as antidote to snake poison.

Loc.: Baretha, Kumar 50216.

Bombax ceiba L. (Bombacaceae) 'Semal'

Bark powder is given alonghwith milk three times a day for impotency in men.

Loc.: Baretha Ghat, Kumar 50281.

***Caesulia axillaris** Roxb. (Asteraceae)

The paste of plant is applied on blisters for relief.

Loc.: Atner, Kumar 50051. Sampna.

Calotropis gigantea (L.) R. Br. (Asclepiadaceae) 'Akao'

Roots are used as antidote to snake bite.

The extract of leaves is given three times a day to treat enlargement of the spleen.

Loc.: Atner, Kumar 50044.

Cassia absus L. (Caesalpiniaceae)

Seed paste is applied over eye lids to treat eye diseases.

Loc.: Kursana, Kumar 50885. Malamjhiri.

***C. occidentalis** L. (Caesalpiniaceae) 'Dev-chirchitta'

The decoction of leaves is given four times a day as antidote to scorpion sting.

Chopra *et al.* (1956) have reported the roots for snake bite.

Loc.: Multai, Kumar 50122.

***Celosia argentea** L. (Amaranthaceae)

The plant is referred as diuretic.

Loc.: Ranipur, Kumar 50189; Chicholi.

*** Cleome viscosa** L. (Capparaceae) 'Peela tilwan'

The decoction of leaves is given twice a day in cold.

Loc.: Kursana, Kumar 50858.

Costus speciosus (Koen.) Sm. (Costaceae)

The powder of rhizome is given as an antifertility agent to women.

Loc.: Dharakhoh, Kumar 51089.

Curculigo orchioides Gaertn. (Hypoxidaceae) 'Kali musli'

The powder of rhizome after frying in cow milk butter is given twice a day for the treatment of impotency in men.

Loc.: Banjari, Kumar 50896; Gausen.

Cynodon dactylon (L.) Pers. (Poaceae) 'Dub'

The extract of plant is given three times a day to treat insanity and fit.

Loc.: Atner, Kumar 50013.

***Dipteracanthus prostratus** (Poir.) Nees (Acanthaceae)

The paste of leaves is applied as ointment for boils.

Loc.: Baretha Ghat, Kumar 50851.

***Echinops echinatus** Roxb. (Asteraceae) 'Aagru'

The paste of root is locally applied as antidote to snake bite and scorpion sting.

Loc.: Atner, Kumar 50027; Bhainsdehi.

Eclipta prostrata (L.) L. (Asteraceae) 'Bhrangraiya'

The decoction of whole plant is given four times a day in fever. It is also locally applied to antidote scorpion sting.

Loc.: Multai, Kumar 50115 A.

***Erythrina suberosa** Roxb. (Fabaceae) 'Panjhra'

The paste of bark is applied to treat skin diseases of feet.

Loc.: Jaswantnagar (Atner), Kumar 50049.

Euphorbia hirta L. (Euphorbiaceae)

The extract of plant is given three times a day for gastro-enteritis.

Loc.: Tapti, Kumar 50067; Ghoradongri.

E. nivulia Buch.-Ham. (Euphorbiaceae) 'Thuar'

Latex is locally applied for the treatment of rheumatism.

Loc.: Multai, Kumar 50134.

Evolvulus alsinoides (L.) L. (Convolvulaceae)

The extract of plant is given four times a day to check fever.

Loc.: Ranipur, Kumar 50179.

***Ficus racemosa** L. (Moraceae) 'Umar'

Fruits are used to relieve toothache.

Rai (1985) has described the stem to be used as toothbrush.

Loc.: Banjari, Kumar 50201.

Gloriosa superba L. (Liliaceae) 'Karkari'

The powder of tubers is used as abortifacient and to expel worms from the stomach.

Loc.: Kursana, Kumar 50875; Dharakhoh.

Hybanthus enneaspermus (L.) F. v. Muell. (Violaceae)

The whole plant is used as tonic.

Loc.: Banjari, Kumar 50891.

***Hygrophila auriculata** (Schumach.) Heine (Acanthaceae)

The paste of leaves is applied for healing of wounds.

Loc.: Tapti, Kumar 50082; Khamla.

***Ipomoea obscura** (L.) Ker-Gawl. (Convolvulaceae)

The paste of leaves is applied on wounds for healing.

Loc.: Sampna, Kumar 50926.

***Lagascea mollis** Cav. (Asteraceae)

Plant-sap is applied locally to cure itches.

Loc.: Bhainsdehi, Kumar 50160.

***Lepidagathis incurva** Buch.-Ham.*ex* D.Don (Acanthaceae)

The decoction of leaves is given three times a day to cure asthma.

Loc.: Dharakhoh, Kumar 50307.

***Martynia annua** L. (Pedaliaceae)

The paste of fruits is applied as antidote to scorpion sting.

Loc.: Baretha, Kumar 50826.

Momordica dioica Roxb. *ex* Willd. (Cucurbitaceae) 'Kartoli'

Root-extract is given as antidote to snake poison.

Loc.: Banjari, Kumar 50904.

Ocimum canum Sims. (Lamiaceae) 'Jangli tulsi'

The decoction of leaves is used two times a day in bronchitis.

Loc.: Ranipur, Kumar 50180.

Oldenlandia corymbosa L. (Rubiaceae)

The extract of whole plant is given three times a day to check fever.

Loc.: Malamjhiri, Kumar 51014.

***Phyllanthus amarus** Schumach. & Thonn. (Euphorbiaceae)

The extract of plant is given thrice a day to check fever.

Loc.: Ranipur, Kumar 50175; Pathakhera

P. urinaria L. (Euphorbiaceae)

The plant is referred as diuretic.

Loc.: Kursana, Kumar 50876.

Plumbago zeylanica L. (Plumbaginaceae) 'Chitrak'

The paste of roots is applied locally in leprosy and other skin diseases.

Loc.: Khamla, Kumar 50242.

***Prosopis juliflora** (Sw.) DC. (Mimosaceae) 'Bengali babool'

Seed powder is given to children to expel worms from the stomach.

Loc.: Atner, Kumar 50032.

***Pueraria tuberosa** (Roxb. *ex* Willd.) DC. (Fabaceae) 'Bhui kumra'

Tubers are given to oxen for vigour.

Rajwar (1983) has reported the tubers as tonic for human beings.

Loc.: Tapti, Kumar 51077.

***Ricinus communis** L. (Euphorbiaceae) 'Yerand'

The decoction of leaves is given thrice a day to treat liver disorders.

Caius (1986) has reported the fruits to be useful in diseases of liver.

Loc.: Multai, Kumar 50127.

Selaginella bryopteris (L.) Baker (Selaginellaceae)

The extract of fronds is given two times a day to restore vitality.

Loc.: Tapti, Kumar 50952.

Smilax zeylanica L. Baker (Smilacaceae)

The extract of roots is given three times a day to check dysentery and also applied locally in rheumatism.

Loc.: Malamjhiri, Kumar 50990.

Solanum virginianum L. (Solanaceae) 'dorli' 'Ringni'.

The decoction of whole plant is given three times a day to control fever while the extract of roots and fruits is referred for cough.

Loc.: Atner, Kumar 50017; Bhainsdehi.

***Spermacoce hispida** L. (Rubiaceae)

The whole plant is used as tonic to restore vitality.

Loc.: Ranipur, Kumar 50191.

Sphaeranthus indicus L. (Asteraceae) 'Mundi'

The extract of roots is given at night to expel worms from the stomach.

Loc.: Ranipur, Kumar 50163.

Trigonella occulta Delile *ex* Dc. (Fabaceae)

Seed powder is given three times a day to check dysentery.

Loc.: Atner, Kumar 50058.

***Urena lobata** L. (Malvaceae) 'Kanguya'

Root extract is given as tonic.

Loc.: Baretha Ghat, Kumar 50815.

Vanda tessellata (Roxb.) Hook. *ex* G. Don (Orchidaceae)

Leaf paste is applied and tied over the injured part for healing of fractured bones.

Loc.: Betul, Kumar 50258; Kursana.

Vernonia cinerea (L.) Less. (Asteraceae) 'Sahdevi'

The extract of whole plant is given three times a day to check fever.

Loc.: Ranipur, Kumar 50182.

Vitex negundo L. (Verbenaceae) 'Penda'

Fomentation of hot leaves is provided to affected parts for rheumatism and paralysis.

Loc.: Tapti, Kumar 50065; Machna.

Wrightia tinctoria R. Br. subsp. **rothii** (G. Don) P. T. Ngan (Apocynaceae) 'Dudhi'

Seed powder is given twice a day with milk to treat seminal weakness (Spermatorrhoea).

Chopra *et al.* (1956) have reported the seeds as aphrodisiac.

Loc.: Jaswantnagar (Atner), Kumar 50053.

DISCUSSION

It is evident from the findings that the three tribes of Betul district use the plants of their surroundings for the treatment of a variety of ailments. Non-availability of 23 out of 54 ethnomedicinal uses in the important literature adds significance to these uses and warrants the need of thorough investigations for confirmation and active principles so that these can be properly utilized in medical sciences. Further, although little modern medical facilities are approchable in certain areas, still they prefer to use herbal drugs due to their easy availability.

confidence and belief in the treatment.

An analysis of data indicates that eight plant species are employed to antidote snake bite and scorpion sting, six to treat fever, five for rheumatism, four to treat cold, cough, skin diseases, as anthelmintic and tonic, and three for stomach disorders while two species to treat impotency, cuts, wounds, and as diuretic. On the other hand, only a single species has been referred for a number of other ailments like eye diseases, spermatorrhoea, spleen enlargement, tuberculosis, mouth sore, boil, asthma, liver disorder, toothache, bone fracture, abortifacient, antifertility and in veterinary. Use of maximum number of plant species as antidote to snake bite and scorpion sting points out that the tribal people often come across with the threat of snake and scorpion and hence, they had to develop some indigenous remedies to cope up with them. Further, a number of species are used for the treatment of fever, rheumatism, cold, cough, skin diseases, as anthelmintic and tonic. This appears to be due to the fact that the tribal people also come across with a number of problems associated with poor sanitary conditions, extreme seasonal fluctuations and natural calamities.

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