

Review Article

Native Medicinal Plants Used by Tribal of Jharkhand

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ABSTRACT

In Jharkhand, tribals are using a large number of wild plants for food, medicine, etc. The area of study is inhabited by the major tribes of the state viz., Oraon, Munda, Santhal, Birhor, Asur, Bediya, Mahli and Kherwar. Tribal collecting tubers, roots, fruits, flowers, leaves, fibres, lac, honey and gums from the forest and using them in a variety of ways, this paper deals with certain mythological notations about diseases and their cure and natural remedies, decoctions and lotions of herbs which come from the neighbour forests. Many of the uses are not known outside their tribal community. The available information regarding the native uses of medicinal plants by the "Asurs" has been discussed here under ten categories: viz., (1) Fever, body pains and headache (2) langhan (rheumatism, gout and paralysis) (3) cough and asthma (4) cholera, diarrhea and dysentery (5) urinary cuts and wounds (6) skin diseases (7) burns cuts and wounds (8) snakebites and poisoning (9) weakness and (10) miscellaneous diseases. The present paper deals with less known medicinal uses of plants which are neither recorded earlier in the published literature nor known to others. The mode of usage and the doses prescribed are discussed in detail.

Keywords

Medicinal plants,
Local name,
Botanical name,
Family, Village
people, Local and
Herbal doctor,
Mode of utilization

Introduction

Jharkhand was selected for ethnobotanical studies as it is within the tribal belt of India, out of the total population of over three million, the scheduled castes and scheduled tribes are over 10 per cent (Chari, 1975). The main tribes of this district are Santhal, Munda, Bedia, Karmali, Oraon, Mahli, Birhor and Khond. The state of Jharkhand is considered to be the centre of the tribal belt in the heart of India but the thirty scheduled tribes here constitute only 39.9 per cent of the total population and the Asur who numbered 7,026 in 1971 constitute only 0.14 per cent of the total tribal population (Das, 1972). Though the area is considered by many as a

land of dense forests, today forests cover only 32.2 per cent of its area. The area has a hilly terrain, mostly covered by thick forests which occupy nearly 46 per cent of the total area.

During ethnobotanical field studies in different parts of Jharkhand the authors came across a large number of tribal people who are using wild plants for food, medicine, insecticides etc. The authors, therefore became interested in finding out authentic tribal uses of these plants, giving emphasis on those which are not available in published literature (Bodding, 1927, Bressers, 1951). The present paper is restricted to the medicinal uses of fifty such plants. The data have been collected either from tribal

medicine men who accompanied them in the field or from old tribals who are very experienced and are actually prescribing these plants materials to different diseases.

Native concept of health and remedy

The native concept of health, disease, treatment, and of life and death is as varied as their culture. The usual theory of disease in tribal society is that disease that is caused by the breach of some taboo or by hostile spirits, the ghosts or the dead. Sickness is the routine punishment for every laps and crime meted out to them by these spirits. As a matter of fact, disease to a tribal mind is like another phenomenon of the natural world, is many-faceted and essentially incomprehensible in the sense that, no single theory will perfectly cover all the known facts.

Disease and divination

The Asurs, generally lead a healthy life, though some of them do occasionally suffer from diseases like malaria, skin diseases, bowel complaints, influenza, ophthalmia, goiter, etc. Influenza is called Hava Duk meaning air affliction. Eye diseases are very frequent. Night blindness among the Asur is reported to be assuming serious proportions. Occurrence of 11.3 per cent colour blindness among the Asurs is rather high and such frequency has not been reported from, other Indian tribes. Bad drinking water may be responsible for the prevalence of goiter as well as bowel complaints. Among the epidemics, the Asur recognizes four namely, cholera, small pox, measles and chicken pox. Children's disease locally called 'Rangbad' has become very common in this area for some times in past. It is said that this disease was imported from the tea gardens in Assam and Bhutan. The mortality rate due to rangbad is stated to be almost hundred per cent.

The Asurs, believed that Dahia or Bishaha (spirits) exercise evil influences. So, they use several kinds of amulets commonly worn in a string round the neck, the waist or on the elbow. The most frequently used form is a small hollow receptacle with medicine inside it. Another is a dysentery stone which is believed to be a charm against the disease. Third is a piece of root or bark tied on the body, its position depending on the nature of ailment. In female barrenness, the stuff used is the dried umbilical cord. On fee whole, science and superstition are strangely blended together by the Asurs. The medicine man gives the medicines, while the diviner called Baiga in addition to giving the medicines, tries to ascertain through divination whether the disease was caused by an evil spirit or a witch or a wizard.

Although the tribal people attribute most of the ills of life to spirits and often seek the aid of magical, practices and religious rites or sacrifices to get rid of such ills, they do not disregard the curative properties of fruits, flowers, barks, leaves and roots of plants and their natural products. In fact, the use of medicinal plants in the treatment of diseases, was conceived by the tribals thousands of years ago. Even the Rigveda speaks of sages escorting the wandering Aryan, tribes with a bagful of healing herbs.

The Asur indigenous system of medicine

Practically nothing is known regarding the origin of the large number of native medicines. But the remedies resorted to buy them in various diseases are quite startling. They might have accidentally hit upon some herb and found it efficacious. They might have then tried it for other complaints and in this way might have learnt by trial and experience. For this study, the Asur customary medicine men of Banspahar, Sakhuapani, Navatoli (Kujam) of Netarhat

plateau, Bishunpur Block, Ranchi District in Jharkhand State were investigated. It came to light that the bulk of Asur pharmacology is indigenous. There are many natural remedies, decoctions of forest herbs or healing lotions, ingredients of which mostly come from the forests of Netarhat plateau.

For Asurs, all fevers are alike and they hardly make any difference between simple fever, malaria, pneumonia, typhoid, influenza, etc. Similarly, they treat all stomach pains as same, whether it is dysenteric pain or constipation, or some other intestinal disorder. So far as diagnosis of the disease is concerned, they face difficulty, particularly if confronted with anything different from the common diseases of everyday occurrence.

Most of the diseases are symptomatic and the name is generally taken from some striking easily recognizable symptom. At times, the same disease may be known by several names.

For the sake of convenience, the various ailments and their different remedies have been discussed under the following categories:

Fever, body pains and headache

Langhan (rheumatism, gout and paralysis)

Cough and asthma

Cholera, diarrhea and dysentery

Urinary complaints

Skin diseases

Bums, cuts and wounds

Snakebites and poisoning

Weakness

Miscellaneous:

(a) Dental complaints, (b) Eye complaints, (c) Ear complaints, (d) Child birth, (e) Anaemia, (f) Jaundice, (g) Dropsy, (h) Consumption and Abortion. The botanical identity of plants is indicated in the Appendix.

Fever body pains and headache

Chitwar

In ordinary fever, the root is grinded with water and the decoction is administered orally. For curing stomach pain, the root is boiled in one liter of water till its volume is reduced to half. Then the root is crushed in it and the decoction is orally administered. It is also said to promote digestion and appetite.

Satawar

In fever due to heat, the root of *Satawar* and the root of *Putri* are grinded with water and the decoction is orally administered. The Birhors use it in Uraemia (blood in urine).

Parhi

In malarial fever, the root is grinded with water and the decoction is orally administered.

In body, muscular or stomach pain, the root is grinded with water and paste is prepared which is applied on the paining parts. In addition, the decoction is also orally administered.

Charaogora

The bark decoction is used against fever. According to Bressers (1951), Col. vomghan used it with success in Ranchi Hospital for malaria and black-water fever.

Dudhia

In body pain, fever and blood dysentery, the root is powdered and taken with water. It is useful in removing worms in children and in bowel complaints. The latex of the herb promotes formation and flow of milk in women.

Ghorbach

In children's fever, the root is grinded with water and a lotion is prepared which is massaged over the body from the upper extremities to the lower, and not in the reverse.

In body pain and headache, the entire herb is crushed and rubbed on the aching parts at bed time daily till the pain, disappears.

According to Jain (1979), the dried rhizome of the herb constitutes the drug Calamus used in medicine. Due to presence of a volatile oil, Calamus acts as a carminative, i.e., it relieves flatulence and feeling of overfullness of stomach.

It is considered a household remedy for colic and for increasing appetite. Due to its essential oil contents, it acts as an expectorant, i.e., it promotes flow of bronchial secretions and is useful in asthma. It also acts as an emetic and larger dose that can cause violent vomiting. Its powdered roots are used as vermifuge. The oil from the rhizomes is a good nerve stimulant and shows marked sedative and analgesic (pain relieving) properties.

The antibacterial and insecticidal activity of the rhizomes has been shown experimentally

This plant has been cultivated in Mysore and other places and can be profitably grown in the tribal region of Chotanagpur as well.

Kalmeg

All parts of the plant above the ground are employed in preparing the medicinal decoction which is very bitter and given in fever, worms, dysentery and gastritis. Recent experiments have shown that the plant has antityphoid and antibiotic activity.

Sonpatti, hechrialtanga and Baghrandi

Young seedlings of *Baghrandi*, root of *Chechrialtanga* and bark of *Sonpatti* are ground with water and the decoction is given in body pain. An oil extracted from the seeds of *Baghrandi* is used as a laxative (does: 15 drops).

Somraj

The seeds are used as a febrifuge and the leaves as vomitive. It is a valuable medicine as anthelmentic.

According to Jain, its utility in thread-worm infections has been confirmed in trials in hospitals.

Langhan(rheumatism, gout and paralysis)

The disease *Langhan* includes rheumatism, gout and paralysis. The symptoms for this disease, as described by the Asur, include occasional pain and swelling on the joints, the severity of pain being maximum on full moon and new moon days.

Some of the herbs used for the treatment of *Langhan* are:

Koraiya

A paste is prepared by grinding the root and bark with water which is massaged downwards on the affected or swollen part.

Karchchamba or Kokorpotaba

The paste is prepared by grinding the root with water which is massaged downwards over the affected part once at bedtime; it cures within nine days.

Kusum

The bark is powdered, and mixed with water, and boiled in an earthen pot, The decoction thus obtained is massaged lukewarm on the affected part thrice daily, it cures in four days.

Ratangora and ChotaParhi

The roots of both are grinded with water and this paste is applied on the affected part and massaged from upper extremities to lower extremities. It cures within 8 to 10 days.

Ghekwar, banabe, Charagora

The roots of all the three are grinded with water and this paste is massaged from upper extremities to the lower extremities, three to four times daily. *Langhan* is cured within 9-10 days.

Cough and asthma

Chandwa

Chewing of the root of this herb is said to cure cough.

Dhawai

A paste of the flowers is given for two or three days to cure cough. Both flowers and leaves yield a large percentage of tannin. The red flowers yield a dye which is yellow or pink.

Kharkhasa, Karsingar

The inflorescence and young fruits of *Kharkhasa* are pounded in water and given in cough, bronchitis and influenza.

It is a very common small tree and is well-known for its medicinal uses.

Rangaini

The Mundas, use the rind of the fruit for cough and the Oraons uses the fruit and flowers mixed with ghee for the same purpose. According to Jain the herb is used in cough. Sore throat, bronchitis, asthma, pain in the chest, muscular pains, fever, etc.

Cholera, diarrhea and dysentery.

Banaber

In bacillary dysentery and diarrhea the bark which contains much tannin, is grinded with water and the decoction is orally administered. About 100 gms of root-juice of *Banaber* mixed with same quantity of root-juice of *Bariari*, filtered and this mixture is administered orally in stomach pain.

Gursukri, Kukurbicha

The fruit and decoction of leaves of *Gursukri* are used in diarrhea and dysentery.

Karinari

The bark is grinded with water and the decoction is orally administered to cure cholera.

Koraiya

The seeds are borne in long fruits called *Inderjao* and are used for preparing a decoction which is used in dysentery, diarrhea and intestinal worms.

Ranpawan

The root is grinded in water and the decoction is used in constipation, blood dysentery and renal trouble. It is also used as an appetizer.

Sakhua, Sal

The fruits (*Luku*) of *Sakhua* are pounded and their paste is reported to be given in loose motions. It's gum is powdered, mixed with fresh curd (*dahi*) and used for curing diarrhea. It is a very common tree in the forests of Chotanagpur plateau and large quantities of fruit and gum can be available from natural source.

Urinary complaints

***Chhotidudhi*(Indian Sarsapilla)**

The root decoction of *Dudhi* is used in urinary complaints. The diuretic action of the drug has been shown experimentally.

It is also largely used as a blood purifier.

Semri, Sembar

The bark and roots of this tree are pounded with water and sugar and filtered. The mixture so obtained is used to promote urination.

Mowna

The roots are pounded in water and the decoction so obtained is given with some sugar thrice daily in gonorrhoea.

Skin disease

Brihmi

For curing leprosy (called *Marang Rog*, the great disease) the entire plant parts are boiled

in water and the decoction so obtained is given to the patient. According to Jain, the plant grows in moist places throughout India and contains asiaticoside which is considered responsible for its use in leprosy.

Experiments on animals have confirmed its property of inducing fast growth of skin, hairs and nails.

Asan

The bark is burnt and mixed with *Til* oil, and is used for curing itching problem.

Karamij, Kanoud

The oil is extracted from the seeds of *Kanoud* and is used as a remedy for itch.

Kusum

The bark is astringent and rubbed with oil, the native use it as a remedy for itch.

Manertige

The oil from its seeds is applied on eczema.

Burns, cuts and wounds

Baghrandi

Latex mixed with salt is used on burns.

Bariari

The fruit and leaves of this creeper, which bears yellow flowers, are used as a lotion to cure boils.

Chitwar

The root is boiled in mustard oil till it begins to char. It is then filtered and the filtrate is applied on septic wounds.

Datromsingi

The bulbs are crushed with turmeric and the paste is applied on fractured cones.

The Mundas use the root and the bark against piles.

Harjarwa

In case of bone fractures, the fresh twigs of *Harjarwa* and *Thoungi* are chewed for five days; the fracture rejoins.

According to Cambell (Haines, 1925) the root is powdered and heated and are applied on cuts and fractures. In case of major fracture, the root of *Bora sak* is grinded into paste and tied on the fracture for a month.

Mara chundi

The root is crushed and juice is squeezed out and applied on any swollen part. As the lotion dries, it reduces the pain and the swelling subsides.

The pounded roots are also applied on wounds of cattle.

Salai

Antiseptic lotion is prepared from it's bark. It's action seems to be like that of Dettol.

Sinduar

The stem of this shrub is pounded and applied externally with splinters as a cure for broken bones.

Siarpunchi

For the healing of septic wound, the decoction is prepared by grinding the root with water and given internally.

According to Jain, the main use of the drug is in heart diseases. It forces more blood into the coronaries and improves the nutrition of the heart.

Snakebites and poisoning

Bhonsri

In snakebite, the root is grinded with water and the decoction is orally administered. The lotion is also massaged over the bitten part.

Dabial, Jal jamni

The roots of the creeper are supposed to be a good antidote for snakebite.

Gusumpuru

For cases of snakebite, the whole plant is dried, powdered and used. One teaspoonful of the powder is mixed in a glass of water and drunk, the same amount is applied on the bitten portion. Dr. Lakra of Dumarpat was reported to be using *Gusumpuru* for snakebites with success.

Koraiya

The person bitten by a snake is made to chew the crushed bark and it cures within three minutes. For cases of poisoning, eight days will be required for a complete cure.

According to Jain, the alkaloid conscience present in the bark has been found to retard growth of tubercular bacilli.

Piyar

The young bark together with new earth (preferably out of an ant-hill) is grinded with water and a paste is prepared, which is massaged downwards on the snake-bitten part.

Weakness

Burhikumba

The root is powdered and a small quantity of powder is taken with milk for sexual weakness.

Gursukri, Kukurbicha

Three pieces of the roots of *Gursukri* and *Kharharbanda* are grinded with water and the decoction is orally taken in case of sterility. The treatment is said to be more effective if administered on Sunday or Tuesday.

Ghodatulsi

Leaves are pounded and made into small pills; three pills a day are given for curing sexual weakness.

Kaj, Kajli

The gum is grinded and mixed with water and given in case of weakness.

Mehndi

The seeds are used as medicine for weakness. The leaves yield the well-known red Henna dye.

Miscellaneous disease

Dental Complaints

Baghrandi

Latex is used for fixing loose teeth.

Chinya

Chewing of this root kills tooth infection.

Rangaini

The root is powdered and applied to aching tooth (*Data hasua*).

Eye Complaints

Galphuli

The juice extracted from leaves is mixed with salt and used as eyedrops.

Putri

Fresh oozing juice is applied in sore eyes.

Raipan

People suffering from night blindness should eat rice on the leaves of this plant for three successive days, the disease will be cured.

Sim

The juice of *Sim* leaf and dry tobacco mixed together is used for curing cases of ophthalmia,

Ear Complaints

Asan, Sain

The bark is powdered and taken with warm water; the powder is also mixed with mustard oil and applied in the ear in cases of impaired hearing.

Satgithia

The leaves are squeezed and the juice so obtained is mixed with salt and used as eardrops.

Child Birth

Bichimandar or Ghodatulsi

The decoction is given to women after childbirth.

Chirchita

The roots of the shrub are pounded and boiled in water, and the extract is administered to a woman after childbirth.

Harjarwa

The stem and leaves of this creeper are pounded with water and given internally to a woman after childbirth, to remove pain.

Gulainchi

When mothers have no milk after childbirth, the leaves are crushed, mixed with *Karanj* oil and applied on the breasts.

Anaemia

Simal

The leaves are boiled and given with sugar in case of anaemia.

Siris

The bark, leaves and fruits are boiled together, and the infusion is given in cases of anaemia.

Jaundice

Asog

The leaves are boiled and the infusion is taken medicinally for curing jaundice.

Dropy

Rakatphar

The root are finely grinded and applied as a thick plaster to reduce the swelling.

Sinduar, Gandiar

The leaves of *Sinduar* are applied on the body for curing dropsy.

Consumption

Bahuar

The fruits are boiled in water and the infusion mixed with honey, is given in cases of consumption.

Abortion

Kujuri, Malkangni

The decoction of bark is used as an abortifacient.

According to the National Botanic Gardens Bulletin No. 25 (Anonymous 1958), the seeds are bitter and used as laxative, for curing leprosy, various fevers, paralysis, etc.

The subject is fascinating in itself and it's study, automatically changes a man's attitude to indigenous herbs and thus helps him to win the confidence of the local people. Considerable amount of information on the traditional uses of plants is available with the tribals. It is, however, feared that with their progressive exposure to modernization, this great treasure may be lost in due course. Therefore, there is an urgent need for botanists and anthropologists to swing into action immediately and collect all information regarding plants used by tribals as food, medicine, fibre and for aesthetic purposes with particular reference to those used in family planning and as stabilizer of age.

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