

ETHNOMEDICINAL PLANTS USED FOR CURING DYSENTERY AND DIARRHOEA BY KORAKU TRIBES OF BALRAMPUR DISTRICT OF CHHATTISGARH

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ABSTRACT

The Koraku Tribes of Balrampur district of Chhattisgarh mostly live in the forest and depend on the vegetation around them for the prevention as well as the treatment of diseases and ailments. Information on ethnomedicinal uses of plants, their doses and mode of administration have been collected from the local traditional medicine practitioners (Vaithiyar) as well as experienced men and women. The paper deals with 21 ethno medicinal plants belonging to 16 families, of which 11 species for dysentery and 10 species for diarrhoea used for the ailments. The most commonly used parts are the leaves 32% and barks 27%, followed by the fruits 14% while others are in less use. Of these 62% are tree, 29% herbaceous and 9% shrub. These ethno medicinal data may provide a base to new source of herbal drugs. However the overexploitation of these medicinal plants may result in depletion and

eventually complete disappearance of species in natural habitat. Therefore attention should be made for proper utilization and conservation of these medicinal plants.

KEYWORDS: Ethno medicinal, Dysentery, Diarrhoea, Koraku Tribals, Balrampur.

INTRODUCTION

Since time immemorial mankind has been dependent on plants for food, medicines, fibers, fodder and other needs. Much close relationship with plants in his immediate surroundings has been passed on successive generations. Millions of rural householders use medicinal plants in self-help mode. Over one and a half million practitioners of the Indian system of medicine use medicinal plants for preventive, promotive and curative applications.^[1, 2] These

plants have become indispensable in the regions where modern facilities are neither available nor easily accessible, particularly in tribal areas.^[1, 2] Worldwide, an estimated nine million children, in the age group of 5 and below die annually affected by diarrhoea.^[3, 4] It is also estimated that diarrhoea kills more children around the World than malaria, acquired immunodeficiency syndrome and tuberculosis combined.^[5] In some rural parts of the developing world, the mother's indigenous knowledge on the predisposing factors of diarrhoea is poor and at times the frequent occurrence of childhood diarrhoea is wrongly perceived as a developmental stage of the child and at times virtually results in mortality.^[5] There is a relationship between the mothers' perceptions of diarrhoea and treatments sought^[6] Very often indigenous people, more specifically the Koraku Tribals associate diarrhoea and dysentery with some evil spirit and therefore treated by some form of cleansing. Such cases are culture-related and may fail to respond to modern forms of treatment.

The World Health Organisation (WHO) has therefore encouraged interaction between western-based and indigenous-based medicines with a view to exploit and identify compounds that could provide safe and effective remedies for ailments of both microbial and non-microbial origins.^[7] This emphasizes a great need of scientific backup in validation of existing formulations. To cater to this, such studies and their compilations are becoming popular. Studies of Mahajan and Mishra^[8], Singh and Mall^[9], Kar and Borthakur^[10], Das *et al*^[11] are examples of this. The present study is an attempt to collect the information and documentation of the plants used by Koraku Tribes of Balrampur district, Chhattisgarh.

Methodology of Survey/ Study

Periodic field surveys were conducted in various localities of Balrampur district of different periods of a year so as to study all seasonal aspects of vegetation that appear at different times. These trips were arranged in a phase manner to cover different localities. The information on plants was collected. The plant material collected from field was brought to The Rapinat Herbarium and centre for Molecular Systematics St. Joseph's College Tiruchirappalli, Tamilnadu, India for identification and authentication. The voucher specimens were also deposited at the herbarium. The information on various aspects like local name, medicinal and other uses of the plants was gathered from Koraku tribes and other local inhabitants. Factors responsible for threatened status of species were also studied. For

this purpose help of the elderly persons of the place was sought to find out the status of species in the past and changes took place since then were asked from local people.

PROFORMA FOR FIELD WORK

1. Place
2. Serial No.....
3. Informer Name.....
- *Age.....
- *Sex.....
4. Recorded by.....
5. Date.....
6. Remarks.....
7. Population.....
8. Location.....
- *Name of Place, Village, District, State.....
- *Physical feature.....
- *Facilities of camping.....
9. Environment.....
10. Area under forest.....
11. Plants Usage:-
 - 11.1. Timber:-
 - 11.2. Tools:-
 - *Tools in agriculture.....
 - *Utensils for cooking and eating.....
 - *Furniture etc.....
 - 11.3. Food:-
 - * Cereals.....
 - *Pulses.....
 - *Vegetables.....
 - *Oils.....
 - *Fruits.....
 - *Condiments.....
 - 11.4. Fodders.....
 - 11.5. Plants used in medicine:-

11.6. Dyes and Tannins:-

11.7. Fuel and Light:-

11.8. Perfumes:-

11.9. Resins, Gum:-

11.10. Insecticides:-

11.11. Beverages:-

11.12. Fibers:-

(Ref. S.K.Jain, proceedings of the Training Course & workshop on Ethnobotany, held at Lucknow, 10-15 March 1986.)

RESULTS AND DISCUSSION

Many ethno botanical studies on plants used in human communities have been limited to specific geographical or administrative regions.^[12] Relatively very few of these studies focused on communities with strong traditional cultures.^[13] The survey gathered information on 21 plant species reported by the informants for their medicinal use in diarrhea and dysentery (**Table 1&2**).The reported species were in 16 families: Apocynaceae(2) Caeselpeniaceae (2) Moraceae (2) Myrtaceae (2)Rutaceae (2)Sapotaceae (1) Hypoxidaceae (1) Dipterocarpaceae (1) Euphorbiaceae (1) Araceae (1) Liliaceae (1) Fabaceae (1) Poaceae (1) Mimoceae (1) Anacardiaceae (1) and Acanthaceae (1). Of these 62% are trees, 29% herbs and 9% shrubs (**Chart 1**).

The crude preparation ranges from decoction, paste, powder with the mixture of roots, tubers, leaves, stem, and twigs. They were administered as respective medicine in appropriate doses in the patients. Almost all medicinal remedies were based on the preparation of a single plant, few of them in combination with other plant parts. In majority of the species (32%) the medicine was obtained from the leaves and (27%) Barks, (14%) Fruit, (9%) Whole plants, (5%) Tuber and Latex and (4%) Roots and Rhizome respectively (**Chart 2**). Similar observations had already been recorded for other communities near forested areas, where vegetation is always green and leaves are abundant.^[14] Medicinal plants and their uses in the indigenous medicine is well known to many Indian communities. The current trend has been to blend the traditional knowledge with modern health care practices to provide effective health care services to a wider population.^[15]

Table: 1 The Plants Used Against Dysentery.

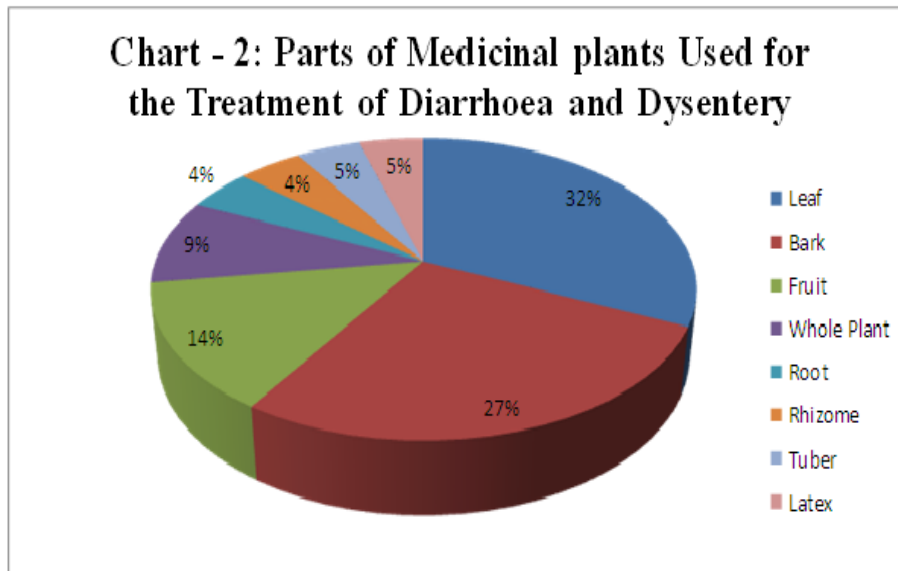
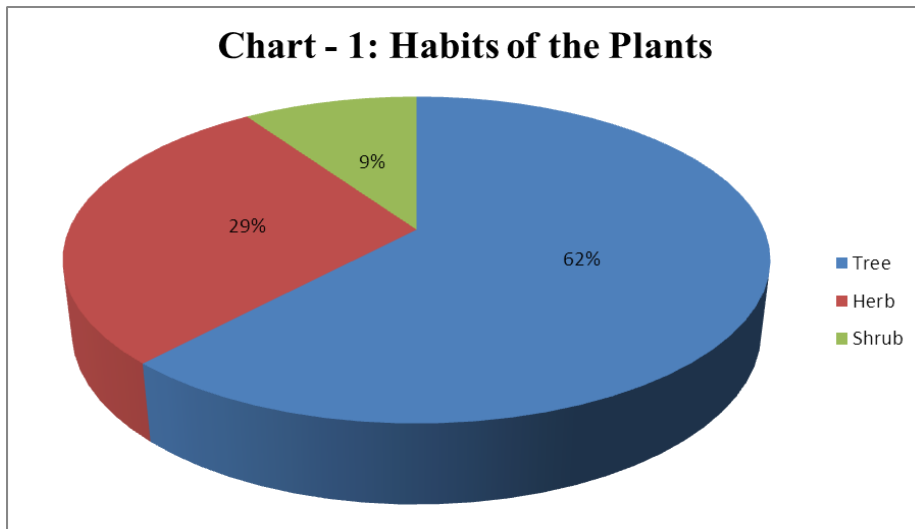
S.No.	Voucher No. RHT	Botanical Name	Family	Vernacular/Hindi Name	Habits	Parts used	Mode of preparation	Administration
1.	65627	<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb.) A.Chev.	Sapotaceae	Mahwa	Tree	Bark	Decoction	Taken orally
2.	65639	<i>Cassia fistula</i> Linn.	Cesalpiniaceae	Bandarlatti	Tree	Bark	Decoction	Taken orally
3.	65637	<i>Curculigo orchioides</i> Gaertn.	Hypoxidaceae	Dindakhajur	Herb	Root	Root Paste	Taken orally
4.	65620	<i>Holarrhena pubescens</i> Wallich ex A. DC	Apocynaceae	Korea	Tree	Bark	Decoction	Taken orally
5.	67113	<i>Shorea robusta</i> Roxb. ex C.F. Gaertn	Dipterocarpaceae	Sal	Tree	Fruit	Decoction	Taken orally
6.	67142	<i>Ficus bengalensis</i>	Moraceae		Tree	Leaf	Decoction	Taken orally
7.	65644	<i>Emblica officinalis</i> , Gaertn	Euphorbiaceae	Awla	Tree	Fruit	Decoction	Taken orally
8.	65677	<i>Acorus calamus</i> , L.	Araceae	Ghodbach	Herb	Rhizome	Grounded with water	Taken orally
9.	65694	<i>Justicia adhatoda</i> L.	Acanthaceae	Adhusa	Shrub	Leaf	Juice	Taken orally
10.	65634	<i>Asparagus racemosus</i> , Willd	Liliaceae	Satawar	Shrub	Tuber	Infusion of tuber mixed with milk	Taken orally
11.	65710	<i>Bahunia purpurea</i>	Fabaceae	Koinar	Tree	Leaf	Decoction	Orally

RHT = Rapinat Herbarium Tiruchirappalli

Table: 2 The Plants Used Against Diarrhoea.

S.No.	Voucher No. RHT	Botanical Name	Family	Vernacular/Hindi Name	Habits	Parts used	Mode of preparation	Administration
1.	65646	<i>Aegle marmelos</i> (L.) Correa.	Rutaceae	Bel	Tree	Bark	The powdered bark is made into paste with mustard seeds	Orally twice a day
2.	65706	<i>Psidium guajava</i> L.	Myrtaceae	Amrood	Small tree	Leaf	decoction of young leaves	Juice is taken orally twice a day for three days.
3.	65709	<i>Citrus aurantifolia</i>	Rutaceae	Neebu	Small tree	fruit	Fruit Juice is prepared with sugar and salt	Taken orally
4.	65657	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Dubghas	Herb	Whole plant	Juice	Taken orally
5.	65623	<i>Achyranthes aspera</i> L.	Mimoceae	Chirchita	Herb	Leaf	Juice	Taken orally
6.	65630	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Jamun	Tree	Leaf, Bark	Grounded with water	Taken orally
7.	65654	<i>Cassia tora</i> L.	Caeselpeniaceae	Chakora	Herb	Whole plant	Decoction	Taken orally
8.	67145	<i>Ficus glomerata</i>	Moraceae	Dumber	Tree	Latex	Decoction	Taken orally
9.	65678	<i>Catharanthus roseus</i> (L.) G. Don	Apocynaceae	Sadabahar	Herb	Leaf	Leaf grounded with water	Taken orally
10	65705	<i>Mangifera indica</i> , Linn	Anacardiaceae	Aam	Tree	Bark	Decoction	Taken orally

RHT = Rapinat Herbarium Tiruchirappalli



Bauhinia purpurea



Aegle marmelos L.



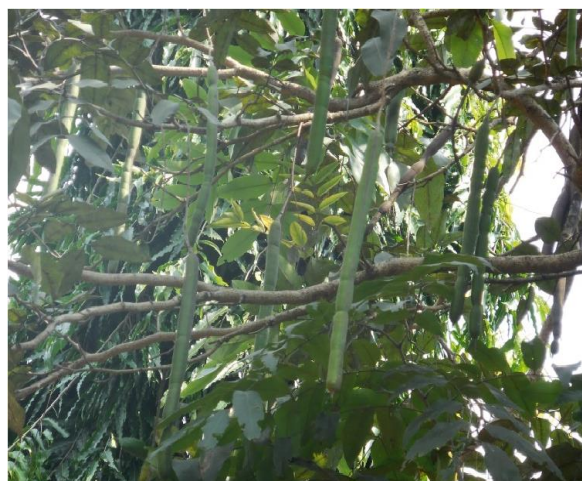
Citrus aurantifolia



A Koraku Man with Medicinal Plant



Curculigo orchioides



Cassia fistula

Plate 1: Some of the Ethnomedicinal Plants Used for Dysentery and Diarrhoea

CONCLUSION

In conclusion the ethno medicinal data may provide a base to start the search of new phytochemical compounds, Isolation of active principles, and pharmacological investigations. The potent anti-microbial activity should be studied on these medicinally valuable species. However the overexploitation of these species in the name of medicine may ultimately lead to depletion of species population. Hence forth extreme caution is necessary to adopt conservation based utilization of these medicinal plants.

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