

Ethnomedicinal Observations from the Anantprasad and Jeypur Tribal Villages of district Cuttack, Odisha, India

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ABSTRACT

Ethnobotanical survey tours were conducted during year 2010-2011 to document the ethnomedicinal remedies for various ailments of the Kondh tribe inhabiting in the Anantprasad and Jeypur villages of district Cuttack, Odisha, India under Athagarh Forest Division. The paper presents 24 plants species belonging to 23 genera and 16 families used by Kondh tribes of this area and other local inhabitants etc. for the treatment of various diseases i. e. boils, cuts & wounds, joints pain, jaundice, constipation, earache, headache, dysentery, menstrual problems, snake-bite etc. The Plants are arranged alphabetically with their botanical name, family in bracket, local name, unani name wherever available, locality with collection number, part used, name of the disease(s) against which used, mode of preparation and administration and Informant who shared his valuable information is given for each recipe discussed. The information provided will help to discover new herbal drugs for many of the diseases, thus far, incurable in modern medicine.

INTRODUCTION

In a developing country such as India, where the major portion of the population is residing in rural and tribal areas that have their own cultural specific medical heritage, it is probably advisable for policy makers and health care planners to reside awhile in the tribal areas and the rural areas since stiff resistance is often met to the setting up of health care programs. When local people shift to using synthetic medicines, healing traditions are eroded and traditional knowledge is lost in the process. Among the scheduled tribes of Odisha, *Kondhs*, *Santals*, *Bhumijis*, and *Mundas* are the major communities in the Cuttack district. Of several natural forest ecosystems in the district, Narsinghpur East and Narsinghpur West are well known for their medicinal flora. The tribal tracts are the storehouses of information and knowledge on the multiple uses of plants. However, such traditional knowledge is rapidly disappearing.

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There is an urgent need to document this knowledge, as otherwise it will be lost forever. The knowledge of the use of natural plant products amongst our people is truly phenomenal.

STUDY AREA

District Cuttack is situated in the North latitude 20° 03' and 20° 40' and between East longitude 84° 58' and 86° 20' with narrow strip of land spreading from east to west. The district is surrounded in the Northern to Western by Jajpur, Dhenkanal, and Angul district Western to South by Nayagargh, Khurda and Southern to Eastern by Jagatsinghpur, Kendrapara districts. Topographically, Cuttack has two prominent divisions i.e. hilly terrain on the west and Mahanadi delta plain on the East (Figure-1). The highly fertile and densely populated land is criss-crossed by rivers and rivulets. These water bodies function both as tributaries and distributaries of the Mahanadi river system. Large portion of the land mass is low lying and gets submerged during monsoon. People of Cuttack largely depend upon agriculture as the primary means of livelihood.

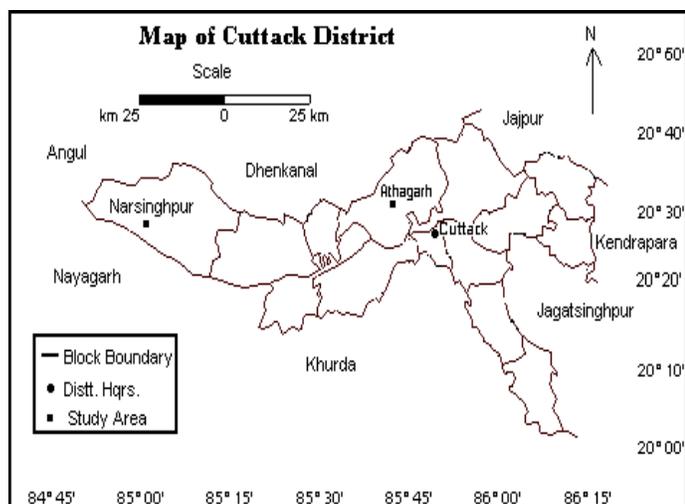


Fig. 1: Map of the Study Area.

MATERIALS AND METHODS

Frequent field trips were undertaken in order to ethnobotanical survey of the inhabitants of the Cuttack district and to make collections of native medicinal plants. Information regarding medicinal plants was obtained in meetings i. e. personally interview with tribal people who practiced indigenous medicine. In many cases, it was first necessary to gain a good rapport with these people in order to win over their confidence. Most of the information included in this study was gathered from elderly and experienced practitioners who were very knowledgeable about medicinal plants. Our field notebook delineates all the usage procedures adopted by these tribals.

The gathered data were cross-checked for reliability and accuracy by interacting with different groups of the tribals from different habitats to confirm the use, mode of administration and dosage differences of the herbal materials, if any. After eliciting detailed information regarding the wild medicinal plants, the collected materials were carefully brought to the Survey of Medicinal Plants Unit, Regional Research Institute of Unani Medicine, Bhadrak for identification and processing. Herbarium sheets for all the collected plant specimens were prepared and deposited in the Herbarium of Survey of Medicinal Plants Unit, Regional Research Institute of Unani Medicine, Bhadrak, India.

The medicinal plants were botanically identified by using the "Flora of Orissa" (Saxena & Brahmam, 1994-1996) and the "Botany of Bihar & Orissa" (Haines, 1925). Confirmation of the identifications was made through the comparison of our specimens with those housed in the Herbarium of the Survey of Medicinal Plants Unit, Regional Research Institute of Unani Medicine, Bhadrak.

ENUMERATION

The medicinal plants used as folk medicine in the study area are arranged in alphabetical order. The Plants are arranged alphabetically with their botanical name, family in bracket, local

name (LN), unani name (UN) wherever available, locality with collection number, part used, name of the disease(s) against which used, mode of preparation and administration and Informant who shared his valuable information is given for each recipe discussed.

Abutilon indicum (L.) Sweet (Malvaceae); LN: Pedipedika; UN: Kanghi; Jeypur-8895; Leaf; Boils; Leaves paste is applied locally on boils for suppuration. Kondh

Ageratum conyzoides L. (Asteraceae); LN: Poksunga; Jeypur-8905; Leaves; Cuts; Leaves juice is applied locally on cuts to check bleeding. Kondh

Alangium salvifolium (L.f.) Wang. (Alangiaceae); LN: Ankulo; UN: Akol; Anantprasad- 8881; Root; Joint Pain; Stem bark, leaves of Bisalyakarni & Sonargada inequal quantity are made into paste and boiled in Jada oil. Resultant oil is applied locally on joints to relieve pain. Kondh

Argyrea nervosa (Burm.f.) Boj (Convolvulaceae); LN: Hathikano; UN: Samandar Sokh; Anantprasad- 8872; Root; Joints pain; A handful of roots and root bark of *Calotropis gigantea* (Arakh) powdered and made into pills of pea size. Two pills is given with milk for one month to get relief from joints pain. Kondh

Boerhavia diffusa L. (Nyctaginaceae); LN: Purnisago; UN: Biskhapara; Jeypur-8908; Roots, Leaves; Jaundice, Constipation; 10-20 gm root powder is given twice a day with rice water to treat jaundice. Leaves are cooked and eaten as vegetable to treat jaundice & remove constipation. Kondh

Cleome viscosa L. (Capparaceae); LN: Banosariso; UN: Hulhul; Jeypur-8910; Leaf; Earache; Leaf juice (warm) is used as ear drops to treat earache. Kondh

Cocculus hirsutus (L.) Diels. (Menispermaceae); LN: Dahdaiya; UN: Jaljamani; Anantprasad- 8887; Leaf; Headache; Leaf paste is applied on forehead to get relief from headache. Kondh

Cuscuta reflexa Roxb. (Cuscutaceae); LN: Nirmuli; UN: Aftimoon-e-Hindi; Anantprasad- 8871; Plant; Fracture; Plant made into paste with Hadbhanga (*Cissus quadrangularis*) is applied on fractured bones. Kondh

Desmodium gangeticum (L.) DC. (Fabaceae); LN: Saloparni; Jeypur- 8895; Root; Diarrhoea; Kondh tribe of the area use 20 ml root decoction twice daily to treat diarrhoea. Root is considered as one of the ingredients of famous 'Dasmularishta' an Ayurvedic Medicine. Kondh

Dioscorea bulbifera L. (Dioscoreaceae); LN: Pitakanda; UN: Barahi Kand; Jeypur-8906; Tuber; Constipation; 5-10 gm of tuber

powder is given on the early morning with warm water as laxative to treat constipation. Kondh

Eclipta prostrata (L.) L. (Asteraceae); LN: Kesudara; UN: Bhangra; Jeypur- 8901; Leaf; Insanity, Cuts, Crushed leaves are directly applied on fresh cuts to check bleeding. Kondh

Euphorbia hirta L. (Euphorbiaceae); LN: Dudhi; UN: Dudhi Kalan; Jeypur-8904; Leaves, Latex; Dysentery; A handful of leaves are made into paste and taken one spoonful thrice a daily for 2-3 days to check dysentery with bloody stool. Kondh

Leonotis nepetifolia (L.) R. Br. (Lamiaceae); LN: Bhutabiari; Anantprasad- 8894; Root; Menstrual problems; Root decoction (One teaspoon, every morning) is given for about one week to treat excess bleeding during menstruation. Kondh

Mimosa pudica L. (Mimosaceae); LN: Lajokoli; UN: Lajjalu; Anantprasad- 8879; Root Snakebite; A handful of roots made into paste is applied as an antidote to poisonous bite of snake. Kondh

Ocimum canum Sims (Lamiaceae); LN: Tulasi; UN: Rehan; Anantprasad-8874; Seed; Eye complaint; Seeds are placed in eye to remove impurities such as foreign particles, to treat redness etc. Kondh

Phyllanthus fraternus Webster (Euphorbiaceae); LN: Badiamla; UN: Bhuiamla; Anantprasad- 8883; Fruit; Eye complaints; A few fruits are eaten raw to treat inflamed eyes. Kondh

Phyllanthus reticulatus Poir. (Euphorbiaceae); LN: Jhojhang; Anantprasad- 8884; Leaf, Stem; Swelling; A handful of leaves are boiled in sufficient mustard oil and applied warm on affected parts to subside swelling. Kondh

Ricinus communis L. (Euphorbiaceae); LN: Jada; UN: Bedanjeer; Jeypur- 8903; Seed oil; Body ache, Constipation; Seed oil warm is applied as massage on the body to get relief from body pain. Kondh

Sphaeranthus indicus L. (Asteraceae); LN: Bhuikadamba; UN: Mundi; Jeypur- 8902; Leaves, Flowers; Wounds, Migraine; A handful of leaves made into paste is applied on wounds for healing. Kondh

Strychnos nux-vomica L. (Strychnaceae); LN: Kochila; UN: Azaraqui; Anantprasad- 8882; Seed; Joints pain; Seed kernel of purified seeds is powdered and taken orally (3 gm twice a day) with milk to treat joints pain. Kondh

Tinospora cordifolia (Willd.) Hook.f. & Thoms. (Menispermaceae); LN: Gulochi; UN: Gilo; Anantprasad-8869; Plant; Fever; Plant decoction is popularly used (one teaspoon, two times daily) to alleviate fever caused by cold. Kondh

Tridax procumbens L. (Asteraceae); LN: Vishalyakarani; UN: Jakhm-e-Hayat; Anantprasad- 8877; Leaf; Cuts; Leaf crushed leaves are directly applied on minor cuts to check bleeding and get relief from pain. Kondh

Woodfordia fruticosa (L.) Kurz (Lythraceae); LN: Dhatuki; UN: Gul-e-Dhawa; Jeypur- 8898; Flower; Amenorrhoea; A handful of flowers made into powder mixed with jiggery is taken 5-10 gm per day for 21 days in Amenorrhoea. Kondh

Ziziphus mauritiana Lam. (Rhamnaceae); LN: Kantakoli; UN: Ber; Anantprasad-8870; Stem bark; Headache; Stem bark made into paste is applied on forehead to treat headache. Kondh

RESULTS AND DISCUSSION

In the present study some traditional therapeutic methods employed by the natives inhabiting Anantprasad and Jeypur villages of Narsinghpur Tehsil of district Cuttack under Athagarh Forest Division have been discussed. Out of 267 species of medicinal plants collected and identified from the study area 24 plant species are used locally in folk medicines by local tribe Kondh and other rural folks etc. for the treatment of various diseases including boils, cuts & wounds, joints pain, jaundice, constipation, earache, headache, dysentery, menstrual problems, snake-bite etc..

The data on folk medicinal uses have been compared with recent available literature. (Ali *et al* 2010, Aminuddin & Girach, 1991; Anonymous, 2001, 2006; Chopra *et al* 1992; Girach *et al* 1998; Jain 1991, Jain & Rao 1967; Kirtikar & Basu 1935; Mukesh *et al* 2010, 2011; Tribedi *et al* 1982) and found that most of the folk medicinal plants are dually reported in the literature, however, mode of administration, ingredients and part used are different. Therefore, the present study represents contemporary folk uses of medicinal plants of the district cuttack. It would be worthwhile to subject all these folk drugs to scientific in the context of claims reported herein.

The collection, identification and documentation of ethno-medicinal data on biological resources are inevitable steps for bio-prospecting. These plants may serve as source of some important medicine against some major diseases. Therefore, these tribal claims should be further validated scientifically.

Most plants used by tribal and traditional communities are easily available near hut or in village. It is easy to fetch them. Generally plants are used in a crushed form. This study established that many different parts of the plant species are used as medicine e.g. root, leaf, stem bark, flowers, fruit, seed, whole plant, etc. The most commonly used plant parts are roots and leaves.

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