



# Ethnomedicine for Jaundice by the Tribals of East Godavari District, Andhra Pradesh

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## Abstract

The present paper deals with 25 plant species belonging to 24 genera and 18 families used to cure jaundice by the tribal of East Godavari district. Euphorbiaceae is the dominant family followed by Acanthaceae and Solanaceae. Of the 25 practices 9 were found to be new.

**Keywords:** Ethnomedicine, Jaundice, East Godavari, Andhra Pradesh.

## 1. Introduction

Millions of people in the third world use herbal and traditional remedies. Traditional medicines are recognized by WHO as essential building block for primary healthcare, especially in developing and vast country like India, where qualified doctors and other medical staff have not reached the tribal areas. There is realization today that there is need to preserve the enormous trove of wisdom and traditional knowledge as also the cultures associated with them. Not only must flora and fauna be protected but also the knowledge database often stored in the memories of elder tribal and traditional healers. The last couple of decades have seen a resurgence of interest in the use of traditional and folklore medicines.

## 2. Study Area

The study area includes 11 agency mandals of the district in the geographical condition of 16°–30' and 18°–20' of Northern latitude and 81°–30' and 82°–36' of Eastern latitude situated on the Northern part of Andhra Pradesh. The forest area of the district is 3,34,193.79

ha and nearly 30% of the total area is under forests. It is inhabited by 191,561 tribal people comprising 3.91% of the total population (2001 census). The major tribal communities are *Konda Dora*, *Konda Kammara*, *Konda Kapu*, *Konda Reddi*, *Koya Dora*, *Manne Dora* and *Valmiki*.

## 3. Material and Methods

During 2005–2007, frequent field trips were conducted to different villages inhabited by tribal of the district. Information from tribal *vaidyas* on plants species which are frequently used in jaundice is recorded. Samples of plant species were collected from them and deposited in the Herbarium of the Department of Botany, Andhra University, Visakhapatnam.

## 4. Enumeration

The data are arranged in an alphabetical manner by giving botanical name, family name in parentheses, vernacular name, English name, Sanskrit name, Hindi name, method of preparation and administration of drugs.

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*Acalypha indica* L. (Euphorbiaceae) VN: Kuppinta S: Haritamanjari H: Kuppikhokli E: Indian acalypha: Leaves with leaves of *Azadirachta indica*, tuberous root of *Boerhavia chinensis* are taken in equal quantities and ground. 2 spoonfuls of paste mixed in a glass of buttermilk is administered daily twice for 10 days.

*Andrographis paniculata* (Burm. f.) Wall. ex Nees (Acanthaceae) VN: Chedhukoora S: Bhunimba H: Mahatita E: King of bitters: Leaves and leaves of *Phyllanthus amarus* are taken in equal quantities and boiled and ground. Paste made into pills of soapnut seed size. 2 pills administered daily twice for 7 days.

*Azadirachta indica* A. Juss. (Meliaceae) VN: Yepa Chettu S: Nimbha H: Neem E: Margosa tree: A spoonful of roasted flower paste mixed with a spoonful of sugar is administered daily twice for about 10 days.

*Barleria cristata* L. (Acanthaceae) VN: Gobbi S: Ragaprasava H: Tadrelu E: Crested purple: \*A spoonful of leaf juice mixed in a glass of milk is administered to children below 5 years daily twice for 3 days.

*Capsicum annuum* L. (Solanaceae) VN: Mirapakaya S: Katuvirah H: Lalmirca E: Chillies: \*Stem with seeds of *Withania somnifera* and *Piper nigrum* are taken in equal quantities and ground. 2 spoonfuls of paste mixed in a glass of buttermilk is administered early in the morning for 15 days.

*Carica papaya* L. (Caricaceae) VN: Boppayi S: Eranda H: Papaya E: Papaya: \*Roots with roots of *Jasminum sambac* and *Lawsonia inermis* are taken in equal quantities and ground. 2 spoonfuls of paste mixed in a glass of rice washing water is administered daily once for 15 days.

*Cordia dichotoma* Forst. f. (Boraginaceae) VN: Eriki S: Shleshmanthaka H: Lasura E: Sebesten plum: 3 spoonfuls of leaf juice mixed with a pinch of asafoetida is administered daily once before breakfast for 5 days.

*Crinum asiaticum* L. (Amaryllidaceae) VN: Pedda chalava dumpa S: Nagadamani H: Pindar E: Poison bulb: \*2 spoonfuls of tuberous root with a pinch of sugar mixed in a glass of goat milk is administered daily twice for 3 days.

*Curculigo orchoides* Gaertn. (Hypoxidaceae) VN: Nela tadi S: Musali tala mulika H: Kala musali E: Black musali: Tuberous root with tuberous root of *Boerhavia chinensis* and *Pueraria tuberosa* are taken in equal quantities and ground. 2 spoonfuls of paste is administered daily twice for 3 days.

*Curcuma longa* L. (Zingiberaceae) VN: Pasupu S: Haridra H: Haldi E: Turmeric: Fresh rhizome with tuberous root of *Cyperus rotundus* and fruits of *Phyllanthus emblica* are taken in equal quantities and ground. 2 spoonfuls of paste mixed in a glass of water is administered daily once for 8 days.

*Ecbolium viride* (Forsk.) Alston (Acanthaceae) VN: Nakka thoka: Handful of tender shoots boiled with water and made into decoction. 4 spoonfuls of decoction is administered twice a day for a week (Buttermilk food without salt is given during treatment).

2 spoonfuls of root paste mixed in a glass of goat milk is administered twice a day for 5 days.

*Euphorbia ligularia* Roxb. (Euphorbiaceae) VN: Akujemudu S: Snuchi H: Sehund E: Common milk hedge: 2 spoonfuls of stem paste mixed in a glass of cow milk is administered daily twice for 8 days.

*Holarrhena pubescens* (Buch.- Ham.) Wall. ex G. Don (Apocynaceae) VN: Kodisa paala S: Kutaja H: Karchi E: Ivory tree: Stem bark with stem bark of *Azadirachta indica* and leaves of *Andrographis paniculata* are taken in equal quantities and ground. The paste is kept in silajittu for whole night, filtered and 2 spoonfuls of juice is administered daily twice for 15 days.

*Mirabilis jalapa* L. (Nyctaginaceae) VN: Badrakshi S: Sandhya H: Gulabbas E: Four-O'clock plant: \*Tuberous root with fruits of *Phyllanthus emblica*, *Terminalia bellirica*, *Terminalia chebula*, seeds of *Piper nigrum*, tuberous root of *Asparagus racemosus* and whole plant of *Phyllanthus amarus* are taken in equal quantities and ground. Paste mixed in a glass of hot water is administered before breakfast for 15 days.

*Ocimum tenuiflorum* L. (Lamiaceae) VN: Tulasi S: Surasah H: Kalatulsi E: Holy basil: \*Leaves with fruit of *Luffa acutangula*, *Azadirachta indica*, seeds of *Syzygium cumini*, *Phyllanthus emblica* and *Piper nigrum* taken in equal quantities are ground. 2 spoonfuls of fruit paste mixed with a spoonful of cow milk is administered daily twice for 8 days.

*Oroxylum indicum* (L.) Benth. ex Kurz (Bignoniaceae) VN: Nagadumdilamu, Pumpena S: Syonaka H: Sonapatha E: Indian trumpet-flower : Stem bark boiled in water for one hour. 3 spoonfuls of decoction is administered twice a day for 10 days.

*Pavetta indica* L. (Rubiaceae) VN: Papidi S: Camicara H: Angari E: White paveta : 100 g of root and 7 seeds

of *Piper nigrum* are powdered. 2 spoonfuls of powder mixed in a glass of milk is administered daily twice for 10 days.

*Phyllanthus amarus* Schum. & Thonn. (Euphorbiaceae): VN: Nela usiri S: Bhaupatra H: Jar amla Jangli-Amla E: *Phyllanthus* herb: 2 spoonfuls of leaf powder mixed in 50 ml of buttermilk is administered daily twice for one week. If it is severe it will be continued for 30 days.

*Phyllanthus debilis* Klein ex Willd. (Euphorbiaceae) VN: Gunne chinta kura S: Tamalaki H: Hazarmani: \*2 spoonfuls of whole plant paste mixed in a glass of goat milk is administered daily once on empty stomach for 10 days.

*Piper nigrum* L. (Piperaceae) VN: Miriyalu S: Maricha H: Kali-mirch E: Black pepper: Seeds and whole plant of *Phyllanthus amarus* are taken in equal quantities and ground. Paste made into pills of peanut seed size. 2 pills along with buttermilk is administered daily twice for 15 days.

*Portulaca oleracea* L. (Portulacaceae) VN: Pappukooraku S: Lonika H: Bara laniya E: Common purslane: \*3 spoonfuls of powder of whole plant mixed with a spoonful of honey is administered on empty stomach once a day for 10 days.

*Ricinus communis* L. (Euphorbiaceae) VN: Amudamu S: Eranda H: Erandi E: Castor oil: 4 spoonfuls of leaf paste is administered early in the morning for 9 days. Buttermilk meals is advisable. Non veg not recommended.

*Solanum americanum* Mill. (Solanaceae) VN: Jajikoora mokka S: Kakamaci H: Makoy E: Black night shade: \*Leaves are dried and powdered. 2 spoonfuls of powder is administered daily twice for about 10 days.

*Tinospora cordifolia* (Willd.) Miers ex Hook. f. & Thoms. (Menispermaceae) VN: Amruthavalli S: Guduchi H: Amrit E: Gulancha tinospora: A spoonful of root paste mixed in half glass of juice of *Saccharum officinarum* or grape juice is administered daily once for 3 days.

*Trianthema decandra* L. (Aizoaceae) VN: Tella galijeru S: Punarnavi H: Yadabani: Leaves with tuberous roots of *Mirabilis jalapa*, *Boerhavia chinensis*, seeds of *Piper nigrum* and bulbs of *Allium sativum* are taken in equal quantities and ground. 2 spoonfuls of paste mixed in a glass of buttermilk is administered daily once early in the morning for 11 days.

## 5. Results and Discussion

The present study yielded 25 plant species comprising 24 genera and 18 families. Euphorbiaceae is the most dominant family with 5 species followed by Acanthaceae with 3 species, Solanaceae with 2 species and the rest of the families each with one species. Earlier studies also found more number of plants belonging to Euphorbiaceae used for curing jaundice by the tribals of Kerala and Andhra Pradesh [1, 2]. Herbs are more dominant (13) followed by trees (7), shrubs (3) and climbers (2). Among the plant part-wise, leaf is more predominant (9) followed by root and stem (each with 3 species), tuber, stem bark and whole plant (each with 2 species) and flower, rhizome, seed, and fruit each with one species. Of the 25 practices 9 were found to be new (3). This provides ample evidence to believe that folklore herbal medicament is still very much alive and functioning in the tribal inhabited regions of East Godavari district.

The efficacy of *Phyllanthus amarus* in treating jaundice is well known in Ayurveda and Siddha systems of medicine. The tribals of the present study area use the leaves of this plant for curing jaundice. Whole plant is used for the same purpose by the tribals of Kerala [1], Assam [4], Karnataka [5] and Andhra Pradesh [2, 6–9]. *Ricinus communis* is widely used in traditional and indigenous systems of medicine to cure a number of ailments. However, its application in the treatment of jaundice is a new knowledge in traditional system of medicine. Shoots are used for curing jaundice in Kerala [1] and Andhra Pradesh [6] whereas leaf in Karnataka [5], Andhra Pradesh [2] and in the present study. *Oroxylum indicum* stem bark is used to cure jaundice by Mech tribe in Duars of West Bengal [10] and the primitive tribal groups of North-Coastal Andhra Pradesh [2]. It is also used for the same purpose by the tribals of the study area. *Acalypha indica*, *Andrographis paniculata*, *Azadirachta indica* and *Tinospora cordifolia* are also used for curing jaundice by the tribals in different parts of Andhra Pradesh [2, 9]. *Tinospora cordifolia* is also reportedly used for the same purpose in Karnataka [5]. *Cordia dichotoma*, *Holarrhena pubescens*, *Pavetta indica* and *Trianthema decandra* are also used for treating jaundice by the tribals of Khammam district [9]. *Curculigo orchioidea* and *Curcuma longa* are also used for the same purpose by the primitive tribal groups of North-Coastal Andhra Pradesh [2]. Further studies on active principles and drug action of these

useful plants may be taken up to evolve safer medicine for the treatment of jaundice.

## 6. Acknowledgement

The authors are grateful to the tribals of East Godavari district for sharing their valuable information and cooperation during field work.

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