

Ethnomedicinal plants used for fever by the Primitive and Vulnerable tribal groups of Visakhapatnam district, Andhra Pradesh

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Abstract: The paper deals with the documentation of 30 ethnomedicinal plant species belongs to 29 genera and 24 families for curing fever by the primitive and vulnerable tribal people of Visakhapatnam district. *Vitis heyneana* and 12 practices were newly reported or less known.

Key words: Ethnomedicine, Fever, Primitive Tribes, Visakhapatnam, Andhra Pradesh

Introduction

In Andhra Pradesh, eight communities viz., Chenchus, Kolams, Konda reddy, Savaras, Thotis, Khonds, Porjas and Gadabas are recognized as PTGs and the last three are present in the Visakhapatnam district. Visakhapatnam district with an area of 11, 161 Km² (4.1% of the area of the state) is one of the north eastern coastal districts of Andhra Pradesh. The study area lies between 17°-34' 11" and 18°-32' 57" northern latitude and 18°-51' 49" and 83°-16' 9" in eastern longitude. It is bounded on the north partly by Orissa state and partly by Vizianagaram district, on south by East Godavari district, on west by Orissa state and east by Bay of Bengal. The entire agency track covers 6, 298 Km² i. e., 56.4% of the total geographical area of the district. The total population of Andhra Pradesh according to 2001 census is 76,210,007 of which tribals constitute 5, 024,104 accounting for 6.59% of the total population. The total population of Visakhapatnam district is 3,832,336 of which the tribals are 557, 572 (14.55%). The primitive tribal groups constitute 126,778 (3.30%). The scheduled areas extend over 31,485.34 Km² which is about 11% of total area of the state with 5,938 villages. Though there are publications on fever in different parts of India (Singh and Kumar 1999, Mishra 2009, Tomar 2007, Chhetri 2004) exclusive studies on the tribes of Visakhapatnam district were not observed resulting the present study.

Material and Methods

The field work was done during 2008-2012 covering all the 11 mandals of the district of the study area and interviews were conducted with the tribes at their dwellings. During oral interviews specific questions were asked and the information supplied by the informants was noted. Those familiar with the plants were taken to the field and along with the collection of plants for the voucher specimens, the use of plants as given by the tribal informants was noted. Field trips were selected in such a way so as to cover the selected areas in different seasons of the year. During field trips information was gathered on plants used for ear, nose and throat ailments. In 95 pockets of the study area, 139 *vaidhyas* and practitioners were consulted. Each medicinal practice was cross checked with at least 3-4 informants. The voucher specimens were collected and deposited in the Herbarium of the Department of Botany, Andhra University, Visakhapatnam.

Enumeration

The plants are arranged in an alphabetical order with botanical name followed by family, vernacular name, English name, method, mode and duration of the treatment. Plants and practices marked with an asterisk (*) are considered to be new or less known.

***Acacia torta* (Roxb.) Craib** Mimosaceae VN: Korintha chekka

2 spoonfuls of stem bark extract with 10 g of jaggery is administered twice a day for 3 days.

***Acorus calamus* L.** Araceae VN: Vasa E: Sweet flag

Tuber paste along with tuber paste of *Costus speciosus* is applied with coconut oil all over the body and one teaspoon of paste is given orally three times.

***Adiantum philippense* L.** Adiantaceae VN: Challi

*Root paste mixed with half tea glass of water is administered twice a day till cure.

***Agave cantula* Roxb.** Agavaceae VN: Kithanara E: American aloe

Tuberous paste along with tuberous paste of *Acorus calamus* is administered with water twice a day for 3 days.

***Andrographis paniculata* (Burm. f.) Wall. ex Nees** Acanthaceae VN: Nela vemu E: King of bitters

A spoonful of dry leaf powder mixed in half glass of hot water is administered twice a day for 3 days.

***Asparagus racemosus* Willd.** Liliaceae VN: Bheemudu jada E: Wild carrot

*Tuber paste mixed with half tea glass of water is administered twice a day for 2 days.

Caesalpinia pulcherrima (L.) Sw. Caesalpiniaceae VN: Turai chettu E: Peacock flower

A spoonful of leaf juice mixed in half glass of hot milk is administered once a day for 3 days.

Cipadessa baccifera (Roth) Miq. Meliaceae VN: Paradonda

*Stem bark paste along with leaf paste of *Cassia occidentalis* is administered daily twice for 3 days.

Cleome viscosa L. Cleomaceae VN: Kukka vaminta, E: Wild mustard

Leaf paste mixed with half tea glass of water is administered twice a day for 3 days.

Clerodendrum serratum (L.) Moon. Verbenaceae VN: Barangi, Neelarani E: Beetle killer

Root paste mixed with half tea glass of water is administered thrice a day for 3 days.

Curcuma aromatica Sal. Zingiberaceae VN: Kasthuri dumpa, E: Wild turmeric

Tuber paste along with tuber pastes of *Acorus calamus* and *Costus speciosus* in equal quantities mixed with half tea glass of water is administered thrice a day for 2 days. The same paste is anointed on the body also.

Cyathia gigantea (Wall. ex Hook.) Halittum Cyathiaceae VN: Peddakoti

Root paste mixed with half tea glass of water is administered twice a day for 3 days.

Cynodon dactylon (L.) Pers. Poaceae VN: Garika gaddi E: Bahama grass

Root along with stem barks of neem and *Oroxylum indicum*, taken in equal quantities are ground into paste and mixed with half tea glass of water is administered twice a day for 3 days.

Eryngium foetidum L. Apiaceae VN: Kerala kothimeera

*Leaf paste is anointed on the body.

Erythrina suberosa Roxb. Fabaceae VN: Mullu moduga

Leaf paste mixed with half tea glass of water is administered twice a day for 3 days.

Gloriosa superba L. Liliaceae VN: Vanka vajram E: Superb lily

Root paste mixed with 50 ml of water is given twice a day for 3 days.

Grewia tiliacifolia Vahl Tiliaceae VN: Nela syamanth E: Dhaman

*Root paste mixed with half tea glass of water is administered thrice a day for 3 days.

Indigofera tinctoria L. Fabaceae VN: Neeli mandhu mokka E: Indian indigo

Bark paste mixed with half tea glass of water is administered twice a day.

Justicia adhatoda L. Acanthaceae VN: Addasaram E: Malabar nut tree

*Root paste along with root paste of *Adiantum lunulatum* mixed with half tea glass of water is administered thrice a day for 3 days.

Marsilea quadrifolia L. Marsiliaceae VN: Chenchalam koora

Whole plant ground with leaves of *Artemisia vulgaris* is applied with coconut oil all over the body before going to bed.

Mollugo pentaphylla L. Aizoaceae VN: Yerrichetharasi

2 or 3 spoonfuls of whole plant decoction is administered daily twice for 4 days.

Phoenix loureirii Kunth Arecaceae VN: Konda eetha E: Hill date palm

Root paste along with tuberous paste of *Mirabilis jalapa* mixed with half tea glass of water is administered twice a day for 3 days.

Piper longum L. Piperaceae VN: Pippallu E: Long pepper

Root paste mixed with paste of dried zinger is administered in 50 g doses twice a day for 2 days.

*Root paste mixed with old jaggery is administered in doses of 50 g once a day for 2 days.

Randia spinosa (Retz.) Poir. Rubiaceae VN: Mangachettu E: Common emetic nut

*Root paste mixed with half tea glass of water is administered twice a day for 3 days.

Trichosanthes cucumerina L. Cucurbitaceae VN: Peeperikaya

Two spoonfuls of fruit juice is given orally twice a day for 3 days.

Viscum orientale Willd. Viscaceae VN: Kammibadanika, E: Mistle toe-dwarf-tufted plant

*Bark paste mixed with half tea glass of water is administered twice a day for 3 days.

Vitex negundo L. Verbenaceae VN: Vayila E: Negundo JK 9359

Root paste mixed with a pinch of salt is administered with half tea glass of water daily twice.

* ***Vitis heyneana*** Roem. & Schultes Vitaceae VN: Mediki dumpa

Tuber paste along with tuber paste of *Curculigo orchioides* mixed with half tea glass of water is administered twice a day for 3 days.

Zingiber roseum (Roxb.) Rosc. Zingiberaceae VN: Adavi allamu E: Pink flowered zinger

*Tuber paste mixed with tuber paste of *Curculigo orchioides* is administered twice a day for 2 days.

Zingiber zerumbet (L.) Smith Zingiberaceae VN: Samida dumpa E: Pine pone ginger or shampoo zinger

*Tuber paste mixed with tuber paste of *Costus speciosus* is administered in half tea glass of water daily once for 3 days.

Results

In the present study 30 ethnomedicinal plant species belongs to 29 genera and 24 families used to curing fever either single or in combination with 31 practices. *Vitis heyneana* and 12 practices were newly reported or less known (Jain, 1991, Kirtikar and Basu, 2003). Habit-wise analysis showed the dominance of herbs with 12 species followed by shrubs (11 spp.), climbers (5 spp.) and trees (2 spp.). Morphological analysis showed the maximum utilization of root in 12 practices followed by tuber (7), leaf (5), stem bark (4), whole plant (2) and fruit (1).

Conclusion

There is an urgent need for follow-up ethnopharmacological screening based on tribal claims and formulate and standardize some herbal medicines based on ethnotherapeutics either with single plant or in combination for their safe and sustained use for human welfare.

Table 1. Plants used for similar purpose in different parts of India

Sl. No.	Plant species	Tribes/Area/Region/Country	Reference(s)
1.	<i>Acorus calamus</i> , <i>Clerodendrum serratum</i> , <i>Piper longum</i> , <i>Vitex negundo</i>	Madhavacikitsa tradition, India	Mishra, 2009.
2.	<i>Justicia adhatoda</i>	Rural people, Meerut district, Eastern Uttar Pradesh	Tomar, 2007.
3.	<i>Vitex negundo</i>	Tribals of India	Singh and Kumar, 1999.
4.	<i>Andrographis paniculata</i>	Traditional healers, Darjeeling Himalayas, India.	Chhetri, 2004.

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