



ORIGINAL RESEARCH PAPER

Medicinal Plants

ETHNOMEDICINE BY THE PORJA'S OF VISAKHAPATNAM DISTRICT, ANDHRA PRADESH

KEY WORDS:

Ethnomedicine, Porja, Visakhapatnam, Andhra Pradesh

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ABSTRACT

Present study deals with the ethnomedicinal knowledge of some medicinal plants used by the Porja tribe of Visakhapatnam district, Andhra Pradesh. The study yielded 26 ethnomedicinal plant species as many as genera and families curing various diseases. *Commelina erecta* and 34 practices were found to be new.

1. INTRODUCTION

The Porja are one of the primitive and vulnerable tribal (PVTG) in the study area. The Porja are hill tribe, inhabiting the Agency Area of Visakhapatnam district, and spread over the adjoining areas of Orissa state. They are chiefly shifting agriculturists and cultivate lands on the high level hill slopes. A numerically small tribe with a population of 32669 (0.65%) and a literacy rate of 26.55%. They reside mainly in the Munchingput, Ananthagiri and Pedabayalu mandals. Their mother tongue is 'Parji' dialect, a corrupt form of Oriya language. The term *Porja* seems to have been derived from Oriya words *po* and *raja* which mean 'so of a king'. Most of them have migrated from Orissa state about 300 years back to the present habitat in search of cultivable land.

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 with 43 mandals, of which 11 (Chintapalli, Koyyuru, G.K.Veedhi, G.Madugula, Paderu, Pedabayalu, Munchingiput, Hukumpeta, Dumbriguda, Araku valley and Ananthagiri) are situated in the hilly areas known as the agency area. The entire agency track covers 6, 298 Km² i. e., 56.4% of the total geographical area of the district. There are several peaks between 1300 to 1670 m. Though there are publications on ethnomedicine for various diseases were not observed necessitating the present study^{1,2,3,4,5,6,7,8,9,12}.

2. METHODOLOGY

The focus of the present study is to record the ethnobotanical knowledge with special reference to medicinal plants possessed by the tribal people. They represent the pockets of human gene pool and have distinct habitats and habits with ample knowledge on the medicinal properties of their surrounding plants. Interviews were conducted with Primitive Tribal Groups (PTGs) people at their dwellings. During oral interviews specific questions were asked and the information supplied by the informants was noted. The data were verified in different villages among the interviewers showing the same plant sample and even with the same informants on different occasions. The knowledgeable informants were taken to the field and along with collection of plants for the voucher specimens, the use of the plants as given by the tribal informants was noted.

In each mandal 4-5 interior pockets were selected, with the help of Integrated Tribal Development Agency (ITDA) and Forest Department. The field trips were planned in such a way so as to cover the selected areas in different seasons of the year. Each field tour is of 7-8 days duration, covering 3-4

pockets in adjacent mandals. The field trip of the field area was completely devoted to get acquaintance with the local chiefs, priests, vaidhyas, herbal doctors, headman, elderly people and also gather information on customs, beliefs, taboos, religious rites, food habits, agricultural practices etc. and these were cross checked, critically analyzed and documented.

3. Enumeration

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

Abrus precatorius Linn. (Fabaceae) Gurivinda, Crab's eye JKR 9257
*Root paste mixed with water is administered in two tea spoonfuls once a day till cure paralysis.

Acalypha indica Linn. (Euphorbiaceae) Muripinda, Indian acalypha JKR 9214 *Root paste mixed with half tea glass of water is administered twice a day for 3 days for Jaundice. Paralysis

Acorus calamus Linn. (Araceae) Vasa, Sweet flag, JKR 9434
*Fifty gm rhizome paste along with dried ginger paste mixed with goat milk is taken orally once a day early in the morning for 15 days for brain tonic.

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 to cure fever.
*Take two spoonfuls of tuber flour twice a day till cure fits.

Aristolochia bracteolata Lam. (Aristolochiaceae) Tella eswari, Warm killer JKR 9445
*Half a leaf juice per Kg body weight of the patient is poured on the navel and covered with leaves and bandaged with a towel overnight facilitates deworming by early morning.

Casearia elliptica Willd. (Flacourtiaceae) Girugudu JKR 9101
*Fifty gm of root paste is administered daily once for one week to ten days and use tender branches to brush the teeth for improvement aphrodisiac.

Cipadessa baccifera (Roth) Miq. (Meliaceae) Paradonda JKR 9142
*Stem bark paste along with leaf paste of *Cassia occidentalis*

is administered daily twice for 3 days to cure fever.

****Commelina erecta*** Linn. (Commelinaceae) Osso JKR 9260
Leaf paste along with stem bark paste of *Oroxylum indicum* mixed with castor oil is applied on affected parts for sciatica.

Cyathia gigantea (Wall. ex Hook.) Haltum (Cyathiaceae)
Peddakoti 9541 Root paste mixed with half tea glass of water is administered twice a day for 3 days to cure fever.

Dalbergia paniculata Roxb. (Fabaceae) Chitakura chettu JKR 9479

*Stem bark paste is applied on effected teeth and brush the teeth with tender shoots once day for 3 days to cure toothache.

Diplocyclos palmatus (Linn.) Jeffrey (Cucurbitaceae) Pinna chettu 9131

*Root paste is made into tablets of 10 g each and one tablet thrice a day is administered till cure for milky urine.

Erythrina variegata Linn. (Fabaceae) Baditha chettu, Indian coral tree JKR 9175

*Root paste and *Jatropha curcas* root paste mixed in half tea glass of water is administered daily twice till cure menorrhagia.

Equisetum debile Roxb. (Equisetaceae) Bedda kandhiri JKR 9244

*Root paste mixed with half tea glass of water is administered daily twice for dysentery.

Ficus tinctoria Forst. f. subsp. *parasitica* (Moraceae) Tella barnika, Stone fig JKR 9035

*Stem bark paste mixed with half tea glass of water is administered twice a day for 3 days to cure dysentery.

Gloriosa superba Linn. (Liliaceae) Vanka vajram, Superb lily JKR 9031

*Root paste mixed with half tea glass of water is administered twice a day for 2 days to cure cough.

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

Helicteres isora Linn. (Sterculiaceae) Bondu gagara, Bastard cedar JKR 9448

*Root paste along with bark paste of *Listea deccanensis* and *Holarrhena antidysenterica* is bandaged around the effected parts for cuts and wounds.

Indoneesiella echioides (Linn.) Sreemadh. (Acanthaceae) Nelavemu JKR 9442

*Leaf paste is applied on the temples of head daily once for headache.

*Leaf paste is made into tablets of 10 g each is administered twice a day till cure epilepsy.

Leonotis nepetiifolia (Linn.) R.Br. (Lamiaceae) Pedda ranabera JKR 9161

*Twenty g of plant paste mixed with 50 ml of water is administered once a day for 3 days for arthritis.

Mirabilis jalapa Linn. (Nyctaginaceae) Poddhu poolu chettu, 4 O' clock plant JKR 9107

*Root paste mixed with root pastes of *Asparagus racemosus* and *Rubia cordifolia* are administered twice a day till cure leucorrhoea.

*Root mixed with roots of *Erythrina variegata* and *Jatropha curcas* grounded with water are administered thrice a day till cure menorrhagia.

*Root paste is applied on effected parts to cure scabies.

*Root paste mixed with water is administered twice daily for stomach pain.

Ocimum tenuiflorum Linn. (Lamiaceae) Krishna tulasi, Holy basil JKR 9216

*Leaves and leaves of *Cassia occidentalis* are grounded and the extracted juice is poured into eyes for eye problems.

Oxalis corniculata Linn. (Oxalidaceae) Pulisinta, Indian sorrel JKR 9052

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

Leaf paste mixed with cow milk is used as eye drops once a day till cure for clear vision.

*Roots ground along with those of *Mirabilis jalapa* and *Curculigo orchoides* are administered with half tea glass of water twice a day for relief from witchcraft.

Passiflora foetida L. (Passifloraceae) Kondakakara, Sinking passion flower JKR 9444

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

Tuber paste along with half tea glass of water is administered twice a day for 2 days to cure asthma.

Leaf dried and made into powder mixed with leaf powder of *Woodfordia fruticosa* is applied on the effected parts for cuts and wounds.

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

Pergularia daemia (Forsk.) Chiov. (Asclepiadaceae) Palatheega, Witlow plant JKR 9057

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

*Leaf paste is given orally with water twice a day till cure fits.

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

Randia spinosa (Retz.) Poir. (Rubiaceae) Mangachettu, Common emetic nut 9183

*Stem bark paste mixed with half tea glass of water is administered only once to abort pregnancy upto 3 months for abortion.

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

Rauvolfia serpentina (Linn.) Benth. ex Kurz (Apocynaceae) Pathalagaridi, Serpentina root. 9050

*Tuber paste mixed with raw banana and a pinch of salt is administered twice a day for one day only for Stomach pain.

Stemona tuberosa Lour. (Stemonaceae) Band beesa ossa JKR 9320

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

Tuber paste is mixed with half tea glass of water is administered twice a day for 3 days to cure fever.

Tinospora cordifolia (Willd.) Miers. ex-Hook. f. & Thoms. (Enispermaceae) Amruthavalli, Gulancha tinospora JKR 9347
*Stem paste is mixed with water and one drop is poured into the ear to cure chickenpox.

*Stem paste mixed with half tea glass of hot water is administered once a day for 3 d for galactagogue.

Wrightia tinctoria (Roxb.) R. Br. (Apocynaceae) Ankudu, Sweet indrajao JKR 9102

*Leaf and stem bark are grounded and applied on the forehead. A spoonful of paste is administered orally for headache.

4. RESULTS AND DISCUSSION

The study documented 27 ethnomedicinal plant species as many as genera and families. The plants used to cure various ailments like abortion, allergy, aphrodisiac, arthritis, asthma, chickenpox, clear vision, cough, cuts and wounds, deworming, dysentery, epilepsy, evil spirits, eye problem, fever, fits, galactagogue, headache, heart pain, leucorrhoea, Jaundice. Menorrhagia, milky urine, oedema, Paralysis, piles, scabies, sciatica, stomach pain, toothache, witchcraft. The morphological plant parts used for ethnomedicinal purpose are classified into root, root bark, tuber/rhizome, stem, stem bark, leaf, seed and whole plant. *Commelina erecta* and 34 practices were found to be new^{10,11}.

In the present study, it was found that leaf paste of *Pergularia daemia* is used abortion, fits and root used for galactagogues. The leaf of this plant is reported to used to cure rheumatism by Kani tribe of Tamil Nadu, India¹, leaf, tuber of this used for heart pain and heart ache by Gadaba's of Visakhapatnam⁸, Leaf juice of this plant used to treat bone fractures by Gadaba tribe of Narsipatnam division, Visakhapatnam dt.², the leaf juice of same plant used to cure throat infections by the Malayali tribe of Thiruvananthapuram, Tamil Nadu, India⁷. Root paste of *Helicteres isora* along with bark paste of *Listea deccanensis* and *Holarrhena antidysenterica* is used for cuts and wounds in the present study, the leaf of the same plant used to cure ear ache and asthma by Irula tribe of Walayar valley, South Western Ghats, India⁵. In the present study the root paste of *Gloriosa superba* is used to cure cough and fever, the root of same plant used by Irula tribe of Walayar valley, South Western Ghats, India⁵ for abortion. The root powder of the same plant used to cure stomach disorders for cattle by Bheel and Bhilal tribe of Jhabua district, Madhya Pradesh, India⁹ and the leaf used to cure asthma by the Gadaba tribe of Narsipatnam division, Visakhapatnam².

The root paste of *Abrus precatorius* is used to cure paralysis by the porja's in the present study, the leaf of the same plant used for sprains by Santal of Bankura district, west Bengal, India⁶, the root and seed is used for baldness by Dongoria Kondh tribe, Rayagada, Odisha³. The leaf of *Oxalis corniculata* used for dysentery and clear vision, root used along with *Mirabilis jalapa* and *Curculigo orchioides* for witchcraft in the present study, the leaf of same plant is used to gastric, stomachache by Santal of Bankura district, west Bengal, India⁶, leaf juice is used for body cooling the Malayali tribe of Thiruvananthapuram, Tamil Nadu, India⁷. In the present study the stem of *Tinospora cordifolia* is used to cure chickenpox and galactagogue, the leaf of the same plant is used to cure black quarter diseases by the Gadaba tribe of Narsipatnam division, Visakhapatnam².

The traditional knowledge about utilization of local plant species is vital in alternate healthcare system as well as for the self sustenance of primitive tribes. These traditional herbal formulations need further pharmacological investigations to prove their efficacy and also develop new drugs for the effective treatment of chronic diseases.

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