



Ethnobotanical Uses Of Some Less-Known Medicinal Plants Used By Adivasi Tribes Of Asifabad Mandal Adilabad District, Telangana

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Abstract:

The present ethnomedicinal survey was conducted in Asifabad Mandal, Adilabad District, Telangana State, which is primarily inhabited by Adivasi tribes such as the Naikpod, Gond, Kolam, and Yerukala, Tothi communities. The study aimed to document less-known medicinally important plants used by traditional healers aged between 40–80 years. Ethnobotanical data were collected through field visits, direct interviews, casual discussions, and structured questionnaires with tribal healers and elders.

A total of 25 plant species belonging to 24 families were documented for their medicinal uses in treating common ailments such as cold, cough, fever, diarrhoea, jaundice, and arthritis pains. The useful plant parts included roots, stems, bark, leaves, seeds, flowers, and fruits. The study reveals that the tribes of Asifabad Mandal possess a rich traditional knowledge of plant-based remedies, highlighting the significance of conserving ethnomedicinal heritage and promoting scientific validation for future drug development.

Introduction:

India has 15 agro climatic zones, 47000 different plants species and 15000 medicinal plants. India one among 12 mega bio diverse country of the world and despite having only 2.5% of total land area the country accounts for our 8% of the recorded species of the world. The Indian system of the medicine have identified 1500 medicinal plants, of which 500 species are commonly used in the preparation of Indian system of the medicine drug^{3,4,5}. In India 461 tribes 92% lives in forest area. Herbal remedies and gentler, safer products to deal with the prevention of ill health and the promotion of good health India with its diversified biodiversity has tremendous potential and a natural advantage in this emerging area.

(Jain 1992)^{6,7,8} is another presentation in which most of the ethnobotanical studies and researches have been provided in condensed form and it serves as an important time saving reference^{17,14,3}.

In 1995 Martin published a book on the methodology of the subject having the title Ethnobotany A method manual it is an important publication providing all possible method and hypothesis testing botany ethnopharmacology, ecology , anththropology, economyics , Linguistic ethnobotanical conservation and community development. Another text book of global importance Ethnobotany principles and application is a valuable contribution by cotton (1996)^{1,2,8,9}.

Characteristics of the study area:

Asifabad mandal 119 km from Adilabad District, Telangana State. Geographical area 9% land area¹⁻⁹ lakhs hectares, which lies between 19° 21' 30.6360" N latitude and 79° 17' 2.9400" E longitudes. Tribal population is dominated by Gond(51%), Kolan(8%), Pardhan, Naikpad, Sanare, Jatepu, Andth, Porje. The flora is endowed with rich diversity of medicinal plants which are used by common people of the region the region have large number of plant species with wide range of diversity and distribution.¹²

Methodology:

During the field survey, ethno medicinal plants were collected from Asifabad mandal, Adilabad district, the area were visited annually 3-4 times during year 2015-2016. The plants collected from field survey and preserved in herbaria. Traditional healers were interviewed about medicinal uses of plants. The standard method of ethno botanical studies were followed Jain SK 1991^{10.11.12.13} During the field survey the tribals were contacted and taken to field for collecting details information about medicinal plant, local names and plant parts used methods of preparation of herbal medicine and approximate dosage of administration collected data were recorded in the field note book and herbarium were prepared.^{14.15.16}

Result and Discussion:

The present study was to collect medicinal plants (climber, herbs, shrub, medium tree, big tree) used in traditional medicine, in Asifabad Mandal, Adilabad district Telangana, India. During the survey, plant and plant parts (Root, Rhizome, Stem, Leaf, Flower, Fruit, Seed) used as medicine for the treatment of various ailments like cold, cough, fever, Diarrhoea, Jaundices, Arthritis pains, ailments have been documented and presented in table-1.

Plants are used for Cold and Cough

Sl.No	Scientific Name	Family	Vernacular Name	Habit	Mode of Administration
1	Anacyclus Pyrethrum(L.) Lag.	Asteraceae	Akkala karra	Tree	Root Power 0.25g with honey one hover before meals cures high cold & cough. Daily 2 times (morning & evening) for 2 days.
2	Androraphis paniculata wall.ex nees	Acanthaceae	Nela Vemu	Herb	Whole plant decoction in need for cough.
3	Ocimum sanctum Linn. L.	Lamiaceae	Tulasi	Herb	Fresh leaves used Immediate for remade for cough, cold.
4	Sonanum xanthocarpum Schard& HWendl.	Solanaceae	Vakudu Kaya	Tree	The whole plant ash 1g is taken with honey daily 2 times items cough, asthma
5	Zingiber officinale	Zingiberaceae	Allam	Herb	Rhizome decoction with honey cures cold and cough

Plants used for Fever:

Sl.No	Scientific Name	Family	Vernacular Name	Habit	Mode of Administration
1.	Andrograph Pauiculata Wall. ex Nees	Acanthace ae	Nelavemu	Herb	Whole plant decoction with honey orally daily 2 times it used cure chronic fever. malarial fever.
2.	Achyranthus aspera And Piper nirum L. And Allium sativum L.	Amaranth aceae and Piperaceae and Liliaceae	Vutthareni and Meriyalu and Vellulli	Herb, Climber, Herb	Equal quantity of pepper, garlic leaves ground into paste make it 0.25g Pilles are taken orally for Fever daily 2 times for 3 days
3.	Lecuas linifolia	Lamiaceae	Thummi	Herb	Flowers leave or juice one spoonful orally daily take 2 time.
4.	Malya roton difolia and Saccharum officinaum	Malvaceae And Poaceae	Athibala And Cheruku	Herb	Leaf decoction with sugar orally takes. Cures fever
5.	Tinospora cordifolia Miers Meni	Spemacea e	Thippatiga	Climber	25ml to 50ml Stem juice is orally takes it cures all Types of fevers

Plants used for diarrhoea:

Sl.No	Scientific Name	Family	Vernacular Name	Habit	Mode of Administration
1.	Phyllanthus emblica	Euphorbiacea e	Vusiri	Tree	Fruit or bark decoction with honey orally daily 2 times it cures diarrhoea
2.	Aegle marmelos correa ex Roxb	Rutaceae	Maradu	Tree	Boiled the unripe fruit pulp taken orally for treating diarrhoea and dysentery
3.	Brassica compestris	Brassicaceae	Avaalu	Herb	Equal quantity of mustard seeds powder and gaggery 0.50g orally daily 2 or 3 times takes until cure
4.	Momordica charantia L.	Cucurbitacea e	Kakara And	Climbe r	Fruit. leaf juice and young leafs or seeds with goat

	And Punica granatum L.	And Lythraceae	Dhanimma	And Tree	milk 25ml orally takes daily 2 times
5.	Carica papaya L.	Caricaceae	Boppayee	Tree	Fruit juice is orally taken daily 2 times.

Plants used for Jaundice:

Sl.No	Scientific Name	Family	Vernacular Name	Habit	Mode of Administration
1	Tinospora cordifolia Miers Meni	Spemaceae	Thippatiga	climber	25ml to 50ml Stem juice is orally takes daily 2 times for 7 days
2	Justicia adhatoda L.	Acanthaceae	Addasaram	Shrub	Leaf juice 15g, honey 20g orally takes 3 times 7-10 days
3	Phyllanthus amarus	Phyllanceae	Nela usiri	Herb	Whole plant make into paste mixed with cow curd and take orally in empty stomach for 10 days

Plants used for Arthritis Pains:

Sl.No	Scientific Name	Family	Vernacular Name	Habit	Mode of Administration
1	Aristolochia Indica L	Aristolochiaceae	Eshwari	Herb	2g root powder wit glass water boiled 1 cup with honey within 7 days cures.
2	Withania somnifera (L.) Dunal	Solanaceae	Aswagandha	Herb	Root decoction orally takes daily 2 times with cow milk or water
3	Calotropis gigantean L.	Asclepiadaceae	Jilledu	Shurb	Warm leaf applied on the effected part of knee and ankle

The paper include 22 Families Asteraceae, Acanthaceae, Lamiaceae-2, Solanaceae-2, Zingiberaceae, Acanthaceae, Amaranthaceae, Piperaceae, Liliaceae, Malvaceae, Poaceae, Spemaceae-2, Euphorbiaceae, Rutaceae, Brassicaceae, Cucurbitaceae, Lythraceae, Caricaceae, Acanthaceae, Phyllanceae, Aristolochiaceae, and Asclepiadaceae. Plant species 24 belongs to climbers, herbs, shrubs, medium tree and big tree. plant parts are whole plant, root, rhizome, stem, bark, leaf, flower, fruit and seed., common plants used for cold, cough, Fever, jaundice, diarrahoea dysentery, Asthama and Arthritis Pains

Conclusion:

The present investigation documents and validates the traditional ethnomedicinal knowledge of the tribal communities of Asifabad, Adilabad District, who rely on medicinal plants for primary healthcare needs. The findings emphasize that these tribes effectively utilize local flora to treat a wide range of ailments through plant-based preparations that have been transmitted through generations.

Such indigenous knowledge holds pharmacognostic potential for modern medicine and could contribute to the discovery of novel bioactive compounds. Therefore, there is a pressing need to conserve, cultivate, and scientifically evaluate these ethnomedicinal plants to ensure the sustainable use of this traditional wisdom for future generations.

Further Study

Phytochemical and pharmacological evaluation of the documented plants should be conducted to identify active compounds responsible for therapeutic properties.

Toxicological studies are needed to ensure the safety and efficacy of herbal formulations traditionally used by local healers.

Establishment of a tribal herbal garden or conservation center in Asifabad to preserve rare and endangered medicinal plants.

Documentation and digitization of traditional knowledge to prevent its loss and promote community-based intellectual property rights.

Interdisciplinary research integrating botany, pharmacology, and ethnomedicine should be undertaken to develop validated herbal formulations.

Awareness and training programs for younger tribal generations can encourage the continuation and sustainable utilization of this traditional wisdom

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Book Review

Several key publications have guided and enriched ethnobotanical research methodologies and applications in India and beyond:

Jain, S.K. (1992) provided a condensed overview of ethnobotanical studies in India, offering a crucial reference for researchers documenting indigenous plant uses.

Martin, G.J. (1995) authored "Ethnobotany: A Methods Manual", a comprehensive guide detailing methods of hypothesis testing and data collection across disciplines such as botany, pharmacology, ecology, and anthropology.

Cotton, C.M. (1996) contributed "Ethnobotany: Principles and Applications", a globally recognized textbook emphasizing the integration of ethnobotanical knowledge with conservation, economics, and community development.

These foundational works continue to serve as essential references for ethnomedicinal documentation and conservation research, guiding studies like the present investigation on the ethnomedicinal heritage of the Asifabad tribes in Telangana.