



International Journal of Medical Research & Health Sciences

www.ijmrhs.com

Volume 2 Issue 1 Jan-Mar 2013

Coden: IJMRHS

Copyright ©2013

ISSN:2319-5886

Received: 1st Dec 2012

Revised: 15th Dec 2012

Accepted: 20th Dec 2012

Original research article

AN ETHNOBOTANICAL SURVEY OF MEDICINAL PLANTS USED BY TRADITIONAL HEALERS OF THADVAI, WARANGAL DISTRICT, ANDHRA PRADESH, INDIA.

Soma Manjula , *Estari Mamidala

Infectious Diseases & Metabolic Disorders Research Lab, Department of Zoology, Kakatiya University, Warangal, Andhra Pradesh, India

*Correspondence author email : estari08@gmail.com

ABSTRACT

Since ancient times, plants have been used as medicine, foods, Agrochemicals and pharmaceuticals by large number of tribes, rural and urban people. India has more than 300 tribal communities. The tribal region of Andhra Pradesh has not received proper attention of ethnomedicinal researchers. Therefore, a survey of ethnomedicinal plants used by Koya tribes of Medaram and Narlapura villages which are on the south of the Godavari River, Thadvai Mandal, Warangal District; Andhra Pradesh, India was undertaken. The information on plants was collected by interviewing the local tribal traditional practitioners. The present study revealed that the plants which are used in traditional systems are mostly collected from the wild resources. A total of 36 plant species (belonging to 24 families) of ethno botanical interest upon inquiries from these tribal informants' between the age of 35-78 were reported. They have been using these parts in the form of paste, powder, decoction, juice, infusion and also in crude form, with other additives like honey, curd, and urine and cow milk to get relief from different ailments like diabetes, inflammations, wounds, skin diseases, headache, indigestion, urinary infections, fever, snake bites, cough, and dental problems. This study therefore concludes, it is necessary that suitability requirements are needed in order to protect the traditional knowledge in a particular area with reference to medicinal plant utilization. The plants need to be evaluated through phytochemical investigation to discover potentiality as drugs.

Keywords: Ethnomedicine, Koyas, Warangal

INTRODUCTION

Traditional medical practices are an important part of the primary health care system in the developing World.¹ The ethno botanical survey can bring out many different clues for the Development of drugs to treat human diseases. Now-a-days, a trend in the

study of medicinal plants and their use in traditional medicine has been drawing the attention of different medical practitioners throughout the world. People have become health cautious; the phototherapy is more safe and effective in curing

ailments without any side effects.² Ethnic groups of various regions of the world are the real custodians of nature's wealth and experts in herbal medicine.³ The traditional indigenous knowledge transferred orally for centuries is fast disappearing because of the technological developments and changing culture of ethnic groups.² It is for this reason the study of ethnomedicine and its restoration have been taking place.

In many countries of Africa, Asia and Latin America people depend on traditional knowledge and medicinal plants to meet some of their primary health care needs. For instance in Africa up to 80% of the population use traditional medicine for primary health care.⁴ Likewise, many Ethiopian communities are dependent on local plant resources for medicine. Moreover, the people in ethnic tribes are averse to change the mode of their life and traditions. But this traditional medical knowledge is slowly diminishing, so it is to be procured and preserved in various forms for future

generations. Thus, this study aimed to ascertain the detailed information on the use of plants and their therapeutic medical practices popular among Koya tribes of Thadvai Mandal, Warangal district, Andhra Pradesh.

MATERIALS AND METHODS

Study Area

Warangal is a city and a municipal corporation in Warangal district in the Indian state of Andhra Pradesh. Warangal is located 148 kilometers northeast of the state capital of Hyderabad and is the administrative headquarter Hyderabad, Warangal District. Warangal is located at 18.0°N 79.58°E. It has an average elevation of 302 meters (990 feet). As of 2011 India census⁵, Warangal had a population of 759,594. Males constitute 51% of the population and females 49%. Warangal has an average literacy rate of 84.16%, higher than the national average of 74.04%: male literacy is 91.54%, and female literacy is 76.79%.

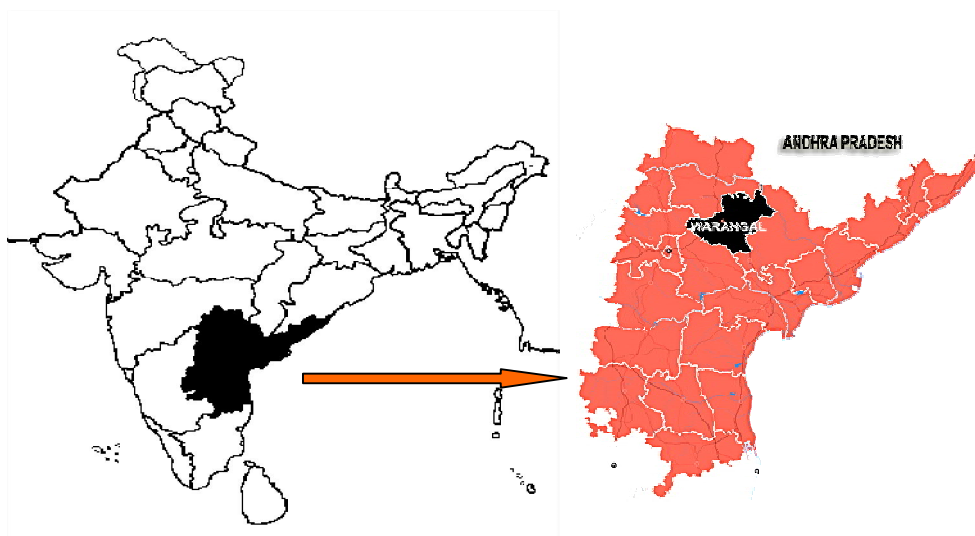


Fig:1. Study area location

Ethno botanical Survey

The ethnomedicinal information was collected from knowledgeable local aged people, herdsmen and local healers of Medaram and Narlapur villages of Warangal district, Andhra Pradesh aged between 35-78 years. The information on ethnomedicine was collected during August 2011

to September 2012 through interviews and discussions. The collected information includes useful plant species with local names, parts of the plant used for curing different diseases. The plant specimens collected with the help of the inhabitants of surveyed villages. The scientific

names of plant species their families were identified with the help of a senior taxonomist of Department of Botany, Kakatiya University, Warangal. The data collected from different sources of ethnic community consists of 36 plant species whose different parts are used for curing different diseases.

RESULTS AND DISCUSSION

The present study includes 36 numbers of plant species of Angiosperms belonging to 24 families are reported. The alphabetical order of scientific

name of the plants, their families local names, diseases, parts used, mode of administration with duration and doses are furnished with table-1. The information provided in the table is collected from local healers through interviews and discussions. They have good knowledge about the use of plants for curing various ailments and also believe in supernatural powers which are also a part of their healing methods. The diagnosis of different pathologies is the first step in phyto cure treatment which can be known by one's nose, ear, hands, and eyes and is interesting.

Table. 1: List of medicinal plant used by Koyas of Thadvai Mandal, Warangal District, Andhra Pradesh, India.

S.No	Botanical & family name	Common Name	Part used & Mode to use	Medicinal uses
1	<i>Andrographis Parculata</i> (<i>Acanthaceae</i>)	Nelavemu	Leaf crush or Powder with honey mixture	Control Diabetes
2	<i>Acassia auriculata</i> (<i>Caesapinaceae</i>)	Thangedu	All parts in same quantity and add the water or honey.	Diabetics and Urinary puss
3	<i>Tinospora Cordifolia</i> (<i>Menispermaceae</i>).	Thippa Teega.	Creepers and Leafs Dry powder or 1 teaspoon Juice	Diabetics
4	<i>Emblica aphicinalis</i> , (<i>Euphorbiaceac</i>)	Usiri	Powder of dry fruit is mixed with turmeric powder along with thangedu leafs	Diabetics
5	<i>Mymosa Peudica</i> , (<i>Mimosoidae</i>)	Athipathi.	Leaf powder with water	Blood purification, nose bleeding, and jaundice. Respiratory diseases, heart disease. Removing water from the body
6	<i>Eugeniajambolana</i> (<i>myrtaceae</i> or <i>myrluscuceius</i>)	Neredu	Seed, Dried and powered mixed with and taken before meals	Diabetes
7	<i>Aclupta alba</i> (<i>asteraceae</i> ,	Guntagalagara .	Leaves, Dried under shade and finally powered this is boiled with oil and applies to white hair for about 40 days	Grey hair
8	<i>Partheniunhisteroporouse</i> (<i>asteraceae</i>)	Nagkesaralu.	Flower, Powered and mixed with buttermilk.	Hyper urination
9	<i>Aerva lenata</i> (<i>Amaranthaceae</i>)	Pindi kura.	Whole plant Boiled with water.	Kidney pains or kidney stones

10	<i>Tectonegrandis</i> (<i>Verbenaceae</i>)	Teaku	Flower, Flower is grinded with water and made into paste now this paste is layered below the stomach	Urine flow will be cleared
11	<i>Dolichas biflorous</i> (<i>Fabaceae</i>)	Blackuluvalu	Seed, Soak in water and grind into a paste and place on the anus	Piles can be controlled
12	<i>Bombox ceiba</i> (<i>Bombacaceae</i>)	Burugu chekka	Bark, Grind the bark and mixed with water	Body heat regulations
13	<i>Phyllonthus niruri</i> (<i>Euphorbiaceae</i>)	Nela usiri	Creepers are grinded and mixed with water	Jaundice
14	<i>Parteinsonia ariculata</i> (<i>Caesalpinacea</i>)	Giluku Cekka.	Roots, Grinded form	Regulation of Body temperature
15	<i>Casiafistula</i> , (<i>Caesalpinaceae</i>),	Raala kaya.	Fruit Direct intake	Fids legs scrams
16	<i>Hardwictia binata</i> , (<i>Caeselpinacaae</i>)	Narepa	Bark, Directly layer on the leg or hand fracture	Pains can be controlled
17	<i>Odinaoodier</i> (<i>Anacardiaceae</i>)	Dhumpudu	Bark, Directly applied on wounds	The wound will be healed quickly.
18	<i>Litseasebifera</i> (<i>Lauraceae</i>)	Narre mamedi	Bark, Juice of bark Is mixed with water	Diabetes
19	<i>Holoptaliaintegricelia</i> (<i>Urgicaceae</i>)	Namelinara	Bark, Fresh juice of the bark is mixed with curd and taken	Abdominal pain
20	<i>Leucasaspera</i> (<i>Lamiaceae</i>)	Thumikuru,	Root, Mix the grind roots and peppers and then mix with boiling water and take through orally	asthmatic problem
21	<i>Menordica</i> (<i>cucurbitaceae</i>)	Kakara chettu,	Leaf and unripe. The leaf extract is poured into nostril	Migraine
22	<i>Sphaeranthus indicus</i> Linn (<i>Asteraceae</i>)	Bodasaram	Leaf. The leaves are grinded with pepper and a dose of spoon extract is orally	Sexual stimulation. Body pains and Diabetic
23	<i>Soymida febrifuga</i> A. Juss. (<i>Meliaceae</i>)	Somi	Bark. The bark soaked water	Diarrhea.
24	<i>Solanum xanthocarpus</i> Schard. & Wendl (<i>Solanaceae</i>)	Nelamulaka	Root. The aqueous extract of the root with a dose of 1 spoon per day is orally	fever and cough, cold
25	<i>Streblus asper</i> Lour (<i>Moraceae</i>)	Barinka, Pakki	Latex, The latex in combination with turmeric applied on head	Cold relief
26	<i>Bryophyllum</i> (<i>Crusulaceae</i>)	Ranapala	Leaves. Grind the leaf and applied to wounds	Wounds healing
27	<i>Cyperus rotandus</i> (<i>Cyperaceae</i>)	Garika	Leafs Applied to the wounds	Wounds healing

28	<i>Datura metal</i> (<i>Solanaceae</i>)	Nalla Ummetta	Leaf and Bark	Skin allergy
29	<i>Madhuca indica</i> (<i>Convolvunaceae</i>)	Ippa	Flower and seeds	Blood purification
30	<i>Riccinus communis</i> (<i>Euphorbiaceae</i>)	Amudam	leafs	Control body pains
31	<i>Strichnus nuxvimoca</i> (<i>Loganiaceae</i>)	Vishamushti	Bark and fruit juice.	Leprosy
32	<i>Lowsina</i> (<i>Lytrhoceae</i>)	Gorinta	Leaves	Jaundice
33	<i>Centella aciatica</i> (<i>Mackinlayaceae</i>)	Saraswathi	Leaves. leaf is grinded & mixed with honey	Improve Memory power
34	<i>Plumbago zeylancia</i> (<i>Plambaginaceae</i>)	Chitramala	Root, bark and leaves	Relief body pain
35	<i>Nona squmosa</i> (<i>Annonaceae</i>)	Seetapalam	Leaves. Grained the leaf and applied to the tumor	Tumours can be controlled
36	<i>Ocimumtenuifloram</i> (<i>Lamiaceae</i>)	Tulasi	Leaves. Juice of leaves	Cold and cough

The tribal healer's preparations are either based on single plant part or combination of several plant species parts. The mode of ethnomedicine usage for different diseases is in various forms, such as aqueous extract, paste and oil. In addition, milk, ginger, pepper, oil, turmeric and jiggery etc. are used as ingredients in the administration of ethnomedicine. The ethnic tribe (Koya) of these villages is healthy and not suffering from common problems like depression, blood pressure and diabetes which are common in urban people. List

of medicinal plant used by Koyas of Thadvai Mandal, Warangal District, Andhra Pradesh, India. Conversely, the same ethnic tribe occupying different vegetation habitats is to be studied ethno botanically.⁶

Among 36 plants belongs to 24 Families, 31% of leaves, 21% Bark, 14% roots, 12 % Flowers, 12% Seeds and 5% Fruits are used for various diseases. The most widely sought after plant parts in the preparation of remedies in the study area are the leaves (31%) and stem bark (21%) (Figure 2).

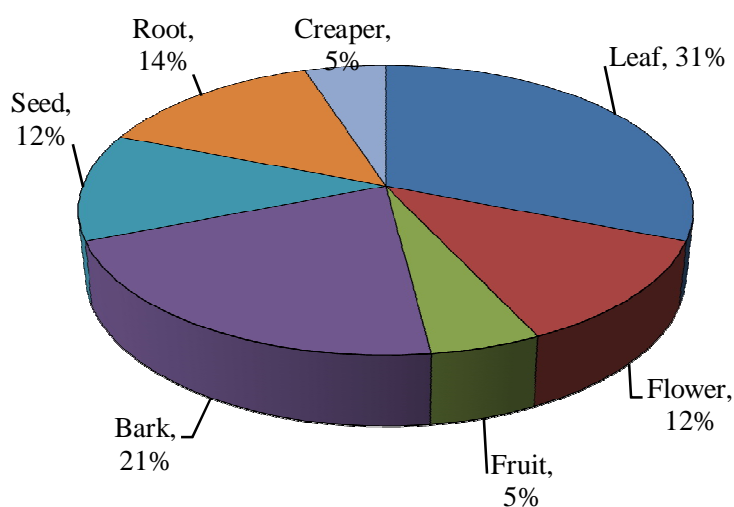


Fig: 2. Parts using from the Different Plants

These plant species are used for the treatment and prevention of many ailments and diseases grouped under 10 ailment categories (Figure 3). The main ailments in the study area were cold, cough, wound healing, urinary disorders, body pains, stomach pain, jaundice, diarrhea, kidney diseases, neural and other diseases. The largest number of medicinal plant species are available for the treatment of skin diseases, body pains and stomachache. Half of the remedies for the above ailments are taken orally,

followed by external application. Generally, fresh part of the plant is used for the preparation of medicine. To improve the acceptability of certain oral remedies, additives are frequently used. Most of the reported preparations in the area are drawn from a single plant; combinations are used in twelve cases. In other parts of the country, the use of mixtures of plant species in treating a particular ailment is fairly common.^{7,8}

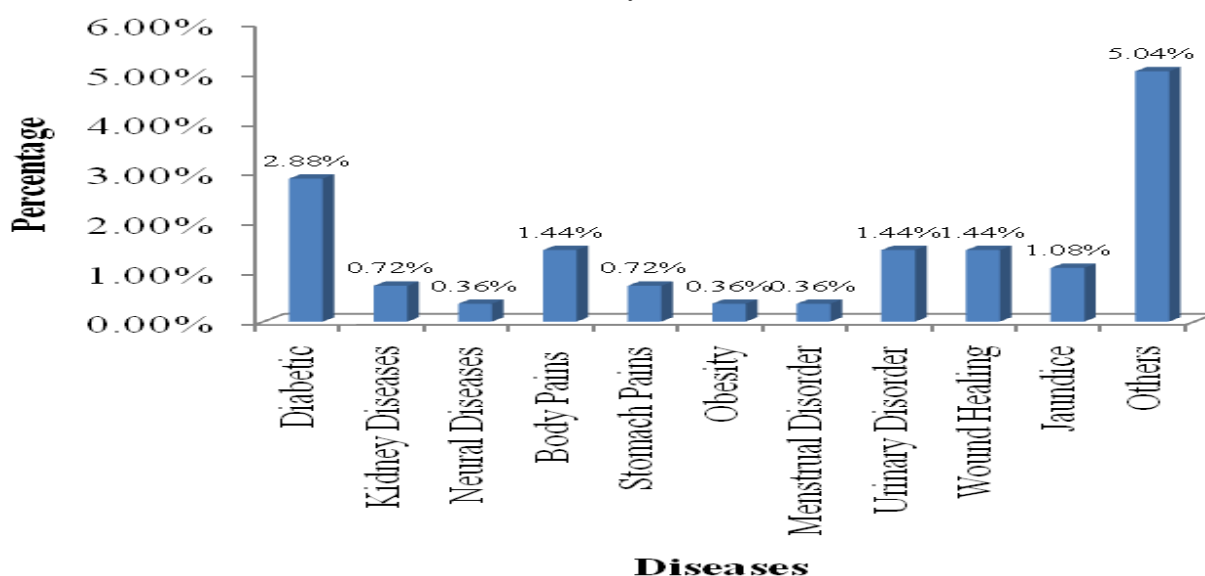


Fig: 3. The different elements of study area grouped under different ailment categories

The present study revealed that the local traditional healers of Khammam district, Andhra Pradesh are rich in ethnomedicinal knowledge and the majority of people rely on plant based remedies for common health problems like headache, body ache, constipation, indigestion, cold, fever, diarrhea, dysentery, wounds, skin diseases, urinary troubles, etc. The survey also revealed that all the traditional healers have strong faith on ethno-medicines although they were less conscious about the documentation and preservation of ethno medicinal folklore and medicinal plants. The group discussion and personal interviews show that youngsters of the Koya tribal community are less aware about the use of ethnomedicines; our findings are similar to reports from India^[9]. On the other hand, traditional healers who are the main

repository of ethno medicinal knowledge claim extreme secrecy over their ethnomedicinal knowledge. The traditional healers have strong believe that if they disclose the secrecy about the medicinal properties of particular plant all the medicinal potentialities of the plant will be lost and the remedy will not work properly.

The study concluded that the local and tribal people of the Warangal district have very good knowledge on the use of medicinal plants. But such knowledge of medicinal plants is restricted to a few persons in rural area. Therefore it is necessary that suitability requirements are needed in order to protect the traditional knowledge in a particular area with reference to medicinal plant utilization and it was found that traditional ethno-

medicine still persists among the tribal's in Thadvai Mandal, Warangal district.

ACKNOWLEDGEMENTS

The authors acknowledge the kindness and cooperation of the informants and local administrators in the study area, and the support of the Department of Botany, Kakatiya University, and Warangal for identification of the plant species. My thanks also to tribal people in study area.

REFERENCES

1. Sheldon JW., Balick MJ and Laird SA. Medicinal Plants: Can utilization and Conservation co-exist. New York Botanical Garden Press Department, New York, 1997; 104.
2. Ganesan S, Suresh N and Kesavan L. Ethnomedicinal Survey of Lower Palani Hills of Tamilnadu, IJ. Trad. Knowledge, 2004;3 (3): 299-304.
3. Burmol KS and Naidu TS. National seminar on "Tribal medicinal System and its Contemporary Relevance. Forest flora of Hyderabad state. 2007.
4. Samy RP, Ignacimuthu S, Raja DP. Preliminary screening of ethnomedicinal plants from India. J Ethnopharmacol. 1999;66:235-240.
5. Census of India. Household Schedule - Side Government of India. 2011.
6. Ravisankar T, Henry AN. Ethnobotany of Adilabad district Andhra Pradesh, India. Ethnob. 1992; 4:45-52.
7. Ayyanar, M; Ignacimuthu, S. Traditional Knowledge of Kani tribals in Kouthalai of Tirunelveli hills, Tamil Nadu, India. J. Ethnophar. 2005;102:246-255.
8. Jain. SK. Dictionary of Indian Folk medicine and Ethnobotany. Deep Publications, Paschim Vihar, New Delhi. 1991.
9. Uniyal SK, Sharma S, Jamwal P. Folk Medicinal Practices in Kangra District of Himachal Pradesh, Western Himalaya. Human Ecol. 2011;39:479-488.