Ethno Medical Studies In Talakona Forest Range of Chittor District, Andhrapradesh

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Abstract: *The flora of Talakona forest division has been studied for its ethnomedicinal wealth (Hemadri et al, Madhava Chetty et al).These studies have contributed immensely to the rural and forest economy. The present study revealed the medicinal use of 66 species of plants distributed in 40 families. Many of the usages were unknown till date. About 65% of the medicinal applications of plants are for internal purposes. Majority of the external formulations are for conditions affecting the integumentary system/skin. They have been using these parts in the form of paste, powder, juice, decoction, infusion and also in crude form, with other additives like ghee, sesame oil and goat milk, to relieve from different ailments.*

Introduction[1 to 7]

India is a vast country with greatest emporia of plant wealth. In the present Ethno Botanical study, uses of medical plants are given prime importance. Since ancient times in India medicinal plants were used in Indian systems of medicine, namely Ayurveda and Siddha. Tribal medicine and ancient medical systems support each in enriching the knowledge and probably the later had its roots in tribal medicine. Chittoor district is rich in forest area and includes different tribal inhabitants in different isolated hill pockets. The area is mainly occupied by the Chenchus, Yerukulas, Sugalis or Lambadis and Yanadis or Irulas tribal groups. They have traditional knowledge of phyto therapy by using potential medicine from plants to cure many ailments. Sheshachalam hills of Tirupati are the main mountain ranges of this district with ecologically sensitive forest Jones and vast flora of medical plants. During the study intensive field collection trips were undertaken repeatedly to different tribal habitats and tribal areas to identify the plants used by them. The tribal headman who is generally a competent person was taken as the local guide in collecting the data. The information collected reveals the medicinal importance of 66 plant species of 40 families.

Materials and Methods[8,9]

In the present study, the following methods were adopted to survey the Ethno botanical uses of Medicinal Plants in Talakona forest division of Chittoor District, Andhra Pradesh.

1. Field study.
2. Herbarium Collection.
3. Field Numbering.
4. Field Notes.
5. Pressing and Drying
6. Poisoning and Preservation.
7. Mounting.
8. Labeling and
9. Identification of the collected plant specimens.

1. Intensive field collection trips were undertaken repeatedly to different tribal habitats for the study. Communication with the tribes was either in Telugu or Tamil as they have the knowledge of both the languages.
2. Voucher specimens of the plants were collected in the field and information was recorded. In case the plants were not in flowering or fruiting stage at the time of collection, such specimens were grown in the S.V. University Botanical Garden and observed until they flowered and then herbarium specimens were prepared. However well-known plant specimens such as common trees, and shrubs were not preserved.
3. For each field number two specimens of each plant were collected and processed as herbarium specimen. Notes for the plants were recorded in the field book.
4. The specimens were given field number serially and the corresponding tag was attached to the specimen.
5. Field notes were recorded with respect to the local names of the plants, locality, habit, flower color and the habitat with relevant information regarding their utility by tribes.

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6. The plant specimens were spread out neatly and pressed in between blotters using wood herbarium press. The blotters were changed every day for about one or two weeks till the specimens are perfectly dried and were ready to be affixed to the herbarium sheet.
7. Poisoning of the dried herbarium specimens were done by the usual method of using mercuric chloride solution in 95% Ethyl Alcohol.
8. The processed plant specimens were then glued and mounted on sheets of 25 x 45 cm size. Corresponding tags attached to specimens were also pasted on the herbarium sheets. Some of the stiff plant Parts were stitched with the help of thread and needle at different places.
9. The mounted herbarium specimens were then labeled with relevant field data at the lower right hand side corner of the herbarium sheet.
10. The specimens were identified with the help of Gamble's "Flora of Presidency of Madras" (1915-35) using salient features, recorded in field notebooks. The identification was further confirmed by comparing with that of authenticated specimens, housed at Sri Venkateswara University Herbarium (SVU, Tirupathi). All these specimens were deposited in 'SVU', Sri Venkateswara University Herbarium, And other local/regional floras, recent monographs Tirupathi. The nomenclature of identified specimens was updated by consulting the recent floras on South India (Saldanha and Nicolson, 1976; Nair and Henry, 1983; Bennet, 1987; Henry et al., 1987, 1989; Pullaiah and Chennaiah, 1997). The enumeration of plants is followed as per Bentham and Hooker system of Classification following the arrangements in the flora of Presidency of Madras (Gamble & Fisher, 1957).

Enumeration[2, 3, 4, 10, 11, 12, 13, 14, 15, 16, 17]

1.	*Acalypha indica* L (Euphorbiaceae) External application of leaf juice, about 10-15ml for 10 days, on affected area once daily relieves from scabies and eczema.
2.	*Achyranthes aspera* L (Amaranthaceae) Its fruits are pounded to get rice like grains. These grains are boiled in water to make a paste. This paste is taken orally in marble dose daily once for one month to relieve from Piles. Root paste mixed with honey, about 5 gr. once daily for a month, is administered orally to cure Rabies
3.	*Actinopteris radiatus* (Sw.) Lin (Actinopteridaceae) Paste prepared from whole plant is rubbed over arthritic joints to relieve from swelling and pain.
4.	*Acorus calamus* L (Araceae) One tea spoon full of root powder mixed with a cup of milk is administered orally daily once, to children, as a memory booster and speech promoter. Keeping this powder over tongue relieves from phlegm
5.	*Alangium salvifolium* (L.f) Wangerin (Alangiaceae) About 20-30 gr. of coarsely ground root bark is soaked in one glass of water (200-300ml.) for one day. The squeezed infusion, about 15-20 ml, is mixed with about 10gr. of ghee, is administered orally as an antidote for snake bite. This is also indicated as anthelmintic.
6.	*Albizia amara* (Roxb.) Boivin (Mimosaceae) About 50 gr. of powder prepared from the leaves of this plant and fruits of *Sapindus emarginatus* and *Acasia concinna* are mixed in equal quantities used externally during head bath to relieve dandruff and hair falling.

7.	*Albizia lebbeck* (L.) Willd (Mimosaceae) Chewing of about 5-10 gr., powder prepared from dried stem bark and *Annona squamosa* dried seeds powder in equal quantities expels phlegm and gives relief from cough. Leaf juice, about 10-15 ml, is administered internally as antidote to scorpion sting.
8.	*Amarantus spinosus* Linn. (Amaranthaceae) External application of, about 15-20 gr. for 10 days, whole plant paste daily once on affected area cures eczema, scabies and Tenia infections
9.	*Annona squamosa* L. (Annonaceae) External application of seeds paste or paste of unripe fruits, about 15-20 gr., on scalp during head bath kills lice.
10.	*Aristolochia bracteolata* Lam.(Aristolochiaceae) Oral administration of paste, in marble size, prepared from laves & roots in equal quantities kills hook worms and round worms.
11.	*Artabotrys odoratissimus* (Roxb.)(Annonaceae) about 15-20 ml., decoction prepared from dry leaf powder as a drink is indicated in diarrhoea
12.	*Asparagus racemosus* Wild (Liliaceae) Daily eating of 3-4 tuberous roots increases breast milk in nursing women.
13.	*Barleria prionitis* L.(Acanthaceae.) One table spoonful powder of dry leaves and stem is administered orally, daily once for 6 months, to prevent asthma in children.
14.	*Bombax ceiba* L (Bombasaceae)-Oral administration of (about 3-5 gr.) gum obtained from the stem is used as an aphrodisiac.
15.	*Borreria hispida* (L.) K. Schum. (Rubiaceae) Oral administration of, about 3-5 gr., seed powder prevents piles.
16.	*Butea monosperma* (Lam.) (Fabaceae) Oral administration of seed oil, about 10-15 ml. once daily for 5 days, kills intestinal worms.
17.	*Cardiospermum halicacabum* L. (Sapindaceae) Oral administration of paste prepared from fresh leaves and roots, (about15-20 gr.) shows sedative effect. This is indicated in insomnia and depression.
18.	*Cassia occidentalis* L.(Caesalpiniaceae.) External application of, about 10-15 gr., root paste cures sores and white patches (leucoderma)

19.	*Cassia tora* L. (Caesalpiniaceae.) : Drinking of, about 10-15 ml, leaf juice mixed with, about 4-5 ml. lemon juice kills intestinal worms.
20.	*Cissampelos pariera* L.(Menispermaceae) Oral administration of, about 15 gr. of root paste and external application of same preparation on the site of bite works as an antidote for snake bite.
21.	*Coleus aromaticus, Benth.* (Lamiaceae) Eating of 1-3 leaves relieves from flatulence, stomachache and increases appetite.
22.	*Cleome viscosa* L.(Cleomaceae) 3-5 drops of leaf juice is administered as ear drops to relive ear ache by melting the wax
23.	*Clitoria ternatea* L. Leaf paste, about 15-20 gr.once daily for 2 weeks, is administered orally to normalize hepatomegalae (liver enlargement) and relieves jaundice.
24.	*Cocculus hirsutus* (L.) Diels. (Menispermaceae) leaf Juice becomes semi solid when placed in middle of the palm. About 10-15 gr. this semisolid juice is administered orally to relieve from burning micturation.
25.	*Corollo carpus epigaus* Hook. (Cucurbitaceae)Dried tuberous root of this plant, root of *Aristolochia indica* and whole plant of *Andrographis paniculata* are pulverized, and 15-20 gr. of powder is administered orally, for every four hours after the snake bite up to 2 days, as an antidote.
26.	*Cyperus rotundus* L.(Cyperaceae). 2-3 rhizomes are eaten for 4 days to relieve from fever and burning sensation.
27.	*Dalbergia sissoo* Roxb.(Fabaceae) Two to three drops of leaf juice are dropped on eyes to treat watering of eyes.
28.	*Datura metel* L. (Solanaceae). Fresh leaves are soaked in boiled sesame oil, kept externally on unripe abscess, bandaged with a cotton cloth to burst the abscess early.
29.	*Dolichos lablab* L. (Fabaceae) A Paste is prepared by grinding the leaves of this plant, *Cassia alata* and whole plant of *Phyllanthus aurmarus* in equal quantities is administered orally, about 15-20 gr., to cure jaundice.
30.	*Echinops echinatus* Roxb. (Asteraceae) Decoction of dried leaf powder, about 15-20 ml. daily once at morning for one month, is administered orally to relieve from cough and hysteria
31.	*Enicostema axillare* (Lam.) A. (Gentianaceae) Paste of whole plant, about 15-20gr. is administered orally as a best antidote for scorpion sting.
32.	*Ficus benghalensis* L.(Moraceae) External application of latex heals the cracks of the foot

33.	*Ficus religiosa* L. .(Moraceae) Seeds powder, about 10-15 gr., mixed with a cup of milk is given orally as a drink daily to retain pregnancy in habitual abortion.
34.	*Ficus racemosa* L(Moraceae) Daily eating of 2-4 raw fruits relieves from leucorrhoea.
35.	*Heliotropium indicum* L.(Boraginaceae) External application, about 15-20gr,. paste twice daily prepared from whole plant cures skin diseases like eczema and tinea infections
36.	*Hiptage benghalensis* (Linn.) Kurz. (Malpighiaceae)Leaf decoction, about 15-20 ml. daily once for ten days, is taken orally to relieve from joint pains.
37.	*Hybanthus enneaspermus* (L.)(Violaceae)Daily in taking of leaf powder, about 10gr. increases the sperm quantity.
38.	*Hygrophila auriculata* (Schum.) Heine (Acanthaceae) Leaf juice, about 15-20 ml. daily once for two weeks, is administered orally to relieve from jaundice.
39.	*Hyptis suaveolens* (L.) Poit.(Lamiaceae) leaf powder, about 4-5 gr. is kept in beedi leaves and rolled. Smoking of these beedies relieves from cold, fever and nasal congestion.
40.	*Lantana camara* L.(Verbenaceae) Fresh leaves paste, about15-20gr., is applied externally on wounds, ulcers and cuts for quick healing
41.	*Madhuca indica* J. Gr.el. (Sapotaceae) Decoction of fruits and flowers is used as cooling agent, febrifuge and also as a local vine.
42.	*Morinda pubescens* J.E (Rubiaceae). Drinking of a cup of decoction prepared from 10 to 15 gr. of dried leaves and root powder relieves diarrhoea and dysentery
43.	*Ocimum tenuiflorum* L. (Lamiaceae) Oral administration of one tea spoon full leaf juice of *O. tenuiflorum* and *Mentha viridis* kills intestinal worms.
44.	*Pergularia daemia* (Forssk.) Chiov.(Periplocaceae) Leaf juice, about 10 ml, daily once for 4 days, is administered orally to reduce the diarrhea and external application of leaf juice over knee joints, relieves pains.
45.	*Phyllanthus amarus* Schum.(Euphorbiaceae) Oral administration of whole plant paste in marble dose, once daily for one week, cures jaundice.
46.	*Physalis minima* L. (Solanaceae) 3-4 fruits are eaten once in a day to relieve from burning sensation and obstruction of urination.
47.	*Piper longum* L. (Piperaceae) External application of leaf juice, about 10-15ml., prepared from p. *longum* and *Acolypha Indica* cures severe eczema.
48.	*Plumbago zeylanica* L. (Plumbaginaceae) Eating of 2-3 leaves causes abortion. 3-4 Leaves of this plant, 5-8 gr. of salt, a few drops of water and about 10-ml. latex of *Argimone mexicana* are mixed and ground to paste. External application of this paste, about 15gr.once daily for week, cures various types of skin diseases like eczema, scabies and tinea infections.

49.	*Pseudarthria viscida* (L.) Wight & Arn. (Fabaceae) Oral administration of a cup of decoction prepared from 10-15 gr. of leaf powder twice daily relieves malarial fever.
50.	*Pterocarpus marsupium* Roxb. (Fabaceae) 10 gr. of gum and 20 gr. of heart wood are powdered. Decoction prepared from this powder, about 10-15 ml, controls diabetes
51.	*Rauvolfia tetraphylla* L. (Apocynaceae) Root paste is applied, about 15-20gr, externally on head to heal head sores.
52.	*Sansevieria roxburghiana* Schult.(Sansevieriaceae) 4-5 drops of Latex, derived by cutting the root, is dropped in to the ear as ear drops to relieve ear ache
53.	*Sesbania sesban* (L.) Merr.(Fabaceae) flower juice, about 3-4 drops is used as eye drops to relieve from eye diseases.
54.	*Sida cordifolia* L. (Malvaceae) 500 gr. Root paste is boiled in 1liter of sesame oil till oil becomes half litre. External application of this oil, about 10 ml. on knee relieves pains.
55.	*Solanum americanum* Miller. (Solanaceae) Oral administration of Juice prepared from leaves and fruits, (about 10-15 ml). daily for one week, relieves jaundice and other liver disorders.
56.	*Strychnos potatorum* L.(Strychnaceae) Seed powder, (about 4-5 gr.) twice daily for 4 days, is administered orally to relieve from diarrhea.
57.	*Terminalia chebula* Retz. (Combretaceae) dry fruit powder is filled in beedi leaves (*Diospyros melanoxylon*) Inhalation of the smoke of this medicate beedi relieves from asthma.
58.	*Tridax procumbens* L.(Asteraceae) External application of leaf paste, about 10 gr, heals sores and cuts.
59	*Tinospora cordifolia* (Willd.) Miers ex Hook. (Menispermaceae) Dry fruits powder, about 5-10gr.daily once for a week, with honey is administered orally to relieve from jaundice and burning sensation.
60.	*Tragia involucrata* L(Euphorbiaceae) Oral administration of one cup of leaf decoction relieves all types of fevers.
61.	*Tribulus terrestris* L. (Zygophyllaceae) leaf paste, (about 5-10gr.) once daily at morning for one week, is administered orally to relieve from jaundice and to melt the kidney stones.
62.	*Vitex altissima* L.(Verbenaceae) Cavities of dental caries are filled with the bark powder to relieve from pain and swelling of gums by killing the bacteria.
63.	*Withania Somnifera* Dun. (Solanaceae)Root powder, about 10gr. daily once, is eaten to increase sperm quantity.
64.	*Wrightia tinctoria* R. Br. (Apocynaceae) External application of leaf paste on mouth ulcers heals them.

65.	*Xanthium pungens* L. (Asteraceae) External application of fruit paste heals soars and pimples.
66.	*Ziziphus xylopyrus* (Retz.) Willd. (Rhamnaceae) Leaves and flowers Paste, (about 20gr). 10-15 ml leaf juice of piper betel is mixed with fresh lime and made small pills (500 mg-1gr.); to delay the menstrual cycle. 2-3 pills per a day are administered orally with one cup of goat milk; 2-3 days before the commencement of the menstruation.

Discussion and Conclusion:

Ethno Botanical studies, especially medicinal uses, are extensively studied in Chittoor district forests of Andhra pradesh. The tribal inhabitants of Talakona forest division of Chittoor district area have immense traditional knowledge based on their ancient culture and ethnic practices. Medicinal values of forest plants were given a special attention because traditional medicines are often cheaper and easier to access for the local people, than western medicine. The present study describes the identification of plants and documentation of medicinal importance of those plants well known for medicinal value by the virtue of tribal traditional practices. The tribal inhabitants revealed medicinal importance of 66 species belonging to 40 families. They have been employing all these plants in the form of paste, powder, juice, decoction, infusion and also in crude form. Of the 66 plant uses, 60% of the applications are internal and 40% external. Majority of the external uses are for skin complaints like skin diseases, ulcers, wounds, dandruff etc. Other external uses are for arthritic conditions, ear and ophthalmologic problems. Majorly the internal uses were for conditions affecting the gastro intestinal system, central nervous system, respiratoty system, genitor urinary system and hepato biliary system. Many indications revealed by the tribes are new in comparison to present herbal medicinal systems like Ayurveda and Siddha. Some of these indications can be proved scientifically in further studies. Some peculiar indications like to delay the menstruation, using of snuff or inhaling the medicated beedi in Astmatic problems etc. should be studied further to find the efficacy and to prove scientifically in international standards for the benefit of the common man and to show the role of Ethno botanical studies in global developmental medicine. It can be concluded that there is urgent need to under take these types of studies, because the tribes are rapidly being migrated to modern societies and the treasure of knowledge is fast disappearing.

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