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Ethnobotanical Survey of Medicinal Plants Used in the Treatment of Dermatogenic Diseases in Chittoor District, Andhra Pradesh, India

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Abstract

An ethno-medicobotanical survey of plants used in the treatment of dermatogenic diseases in Chittoor District, Andhra Pradesh was conducted. The information was collected on the basis of personal interviews with traditional healers, tribal doctors and old women of the society. The investigation revealed that 24 plant species belonging to 18 families and 21 genera are commonly used in the treatment of skin ailments.

Key words: Ethno-medicobotanical, plants, tribal, rural, skin, ailment.

Introduction

The Chittoor district is located in the southern most region of Andhra Pradesh. It spreads over an area of 15, 152 sq. kms with a forest area of 4,512,40 sq. kms with total population of 37.35 lakhs of which 25 lakhs people are living in rural areas and 8-10 lakhs are in urban areas and the density of population is 247 sq.km. It lies between 12⁰37⁰ - 14⁰8¹ of North latitude and between 78⁰33¹ - 79⁰55¹ of Eastern latitude. The district is bounded by Nellore district of Andhra Pradesh and Chengal pattu district of Tamil Naidu on the east, Kolar district of Karnataka on the west, Kadapa district of Andhra Pradesh on the north, North Arcot and Dharmapuri district of Tamil Nadu on the south. The temperature varies from minimum of

19⁰C-21⁰C to a maximum of 31⁰C-45⁰C. Rainfall is received by the South West monsoon and North East monsoon.

The tribes of the area are Yanadi, Yerukula, Sugali and Nakkala. Tribes Yanadi and Yerukula are dominant in the east division, while majority of Sugali tribes are concentrated in the west division. These people and the people of some rural areas depend upon the local plants for the treatment of various diseases. The traditional uses of medicinal plants of this district are very popular as reported in the literature. (Kirtikar and Basu, 1975; Sudarsanam 1987; Madhava Chetty and Narayana Rao 1989 and Yoganarasimhan, 2000) Twenty two plant species belonging to eighteen families have been collected from different areas of the district. Ethnomedicinal information was gathered during field study, from knowledgeable persons, Yanadis, Yerukulas, old experienced people, through conversation and discussion. The plants are arranged alphabetically followed by family, local name, part used, mode of preparation and administration wherever possible and the uses are based on traditional knowledge.

Materials and Methods

Ethnomedicobotanical data were collected through conversation with traditional healers, tribal doctors and old women in the field trips. During the interview local names, useful plant parts, method of preparation, and dosage were recorded. The plant species were identified with the help of regional and local floras (Hooker, 1897; Gamble, 1967; Narayana Rao *et al.*, 1981, Rangacharyulu, 1991; Thammanna *et al.*, 1994 and Matthew, 1983). The method of collection of voucher specimens, their preservation herbaria and technique for the collection of ethnomedicobotanical information follows Jain and Rao (1977).

1. *Aloe vera* (L.) Burm.f. (Liliaceae)

L.N.: Kalabanda

Leaf pulp is used as a moisturizer in dry skin and emollient in burns.

2. *Andrographis paniculata* (Burm.f.) Wall. ex/Nees (Acanthaceae)

L.N: Nelavemu

Leaf paste is used externally and decoction of whole plant used internally in black spots and sun burn till they completely disappear.

3. *Azadirachta indica* A.Juss. (Meliaceae)

L.N.: vepa, vepachettu

Leaf, bark and seed oil is used for skin eruptions and troubles for a period not more than 3 weeks.

4. *Cassia auriculata* Linn. (Caesalpiniaceae)

L.N. Tangedu

Leaf paste is used for boils for about 3-4 days.

5. *Cassia fistula* Linn. (Caesalpiniaceae)

L.N. Rela

Bark is used for fungal skin diseases as an external application for about a month. Its decoction is used as a washing liquid.

6. *Cassia tora* Linn.. (Caesalpiniaceae)

L.N. Kasintha

Seed paste is used externally for ring worm and other fungal infections for a period of 7-8 days.

7. *Clerodendrum inerme* (L.) Gaertn. (Verbenaceae)

L.N. Nalla vuppi

Leaf paste is used for scabies and leucorrhoea about 2-3 weeks.

8. *Cuscuta reflexa* Roxb. (Cuscutaceae)

L.N.: Passiteega, Bangaru teegalu, Sitamma Savaram.

The paste of the whole plant is used against warts for a period of one week.

9. *Ficus carica* Linn. (Moraceae)

L.N.: Atthi, Manchi atthi.

The fresh leaf juice and latex is applied twice a day for 2-5 days externally against hypercritical dermatitis.

10. *Lantana camara* Linn. Var. *aculeata* (L.) Mold. (Verbenaceae)

L.N. : Cheeki, Akshintapoolu.

Leaf paste is an externally applied to wounds and cuts.

11. *Lepidagathis cristata* Willd. (Acanthaceae)

L.N. Nakka pintuka

Whole plant paste is used against itching sensation.

12. *Oxalis corniculata* Linn. (Oxalidaceae)

L.N.: Pulichinta

The juice of the whole plant is gently rubbed on the skin against allergies for 2-5 days and also it can be taken orally for a month.

13. *Portulacca quadrifolia* Linn. (Portulacaceae)

L.N. Sanna pappukoora

Whole plant is pasted and used for ulcers for a period of 10-15 days. It is taken internally in anaemia.

14. *Psoralia corylifolia* Linn. (Fabaceae)

L.N. Bavanchalu

Seeds especially recommended in leucoderma, psoriasis, leprosy and inflammatory diseases of skin.

15. *Tridax procumbens* Linn. (Asteraceae)

L.N. Gaddi chamanti

Fresh leaf juice is applied over cut wounds for 2-3 days.

16. *Pergularia daemia* (Forssk.) Chiov. (Asclepiadaceae)

L.N.: Dustapateega.

Leaf paste is applied externally for scabies thrice a day for a periods of 7 days.

17. *Calotropis gigantea* (L.) R.Br. (Asclepiadaceae)

L.N.: Tella jilledu.

Root, bark, leafy and latex is used in leprosy and skin diseases for a period of 8-10 days.

18. *Plumbago zeylanica* Linn. (Plumbaginaceae)

L.N.: Chitramulamu.

Diluted paste of the root bark is applied on the skin, to treat leucoderma and ringworm for a period of 3-4 weeks.

19. *Euphorbia hirta* Linn.(Euphorbiaceae)

L.N.: Nanabalu, chukka mokka, Reddivari nanubalu.

50gm of whole plant, garlic (3-4 no.) and pepper (3-4 no.) pasted in a buttermilk applied on boils for a period of 10 days.

20. *Rubia cordifolia* Linn. (Rubiaceae)

L.N.: Manjistamu

Root paste is applied externally for eczema for 3-4 months, and its decoction is given internally for the same period.

21. *Tinospora cordifolia* (Willd.) Hk.f.&Th. (Menispermaceae)

L.N.: Tippa teega

Root paste is used commonly in leprosy.

22. *Cassia alata* Linn. (Caesalpiniaceae)

L.N.: Peda tangedu.

Leaf paste mixed with seed oil of *Pongamia pinnata*, applied externally for skin diseases.

23. *Strychnos nux-vomica* Linn. (Strychnaceae)

L.N. : Mushti.

Leaf paste is applied externally for common skin diseases.

24. *Ficus hispida* Linn.f. (Moraceae)

L.N. : Bemmedu akulu, Medi pandu, Brahmamedi

Fresh Leaf juice is applied externally for skin disorders like Leucoderma and fruit juice is given internally for 3 days.

Conclusion

The total number of plant species utilized in studied region is 22 from eighteen families. The common dosage forms include decoction, paste, juice, and powder. A decoction is prepared by boiling the plant parts in water for 10-15 min. Most of the herbal remedies are taken orally.

It can be concluded that the local and tribal people of the district have very good knowledge on the use of medicinal plants. But such knowledge of medicinal plants is restricted to a few persons in a rural area. Therefore it is necessary that suitable requirements

are needed in order to protect the traditional knowledge in particular area with reference to medicinal plant utilization and it was found that traditional ethno-medicine still persists among the tribal's in Chittoor district.

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