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ETHNO-MEDICINAL PLANTS USED BY THE KANIKARS IN KANYAKUMARI DISTRICT, TAMIL NADU WITH SPECIAL REFERENCE TO SKIN DISEASES

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ABSTRACT

Skin diseases are most common form of infections occurring in people of all ages. A survey on ethno Medicinal plants used in the treatment of Skin Diseases in Kanyakumari District of Tamilnadu State has been conducted during 2012 - 2013. A large number of traditional herbal healers exist belonging to this tribal community and are utilizing local plants to treat various skin diseases. The present study underlines the potentials of the ethnobotanical research and the application for the documentation of traditional ecological knowledge pertaining to the utilization of medicinal plant for the benefit of mankind in various places.

KEYWORDS: Medicinal plants, Traditional medicine, Kanikar tribe, Skin disease,

INTRODUCTION

The knowledge of medicinal plants has been accumulated in the course of many centuries based on different Indian systems of medicines such as Ayurveda, Unani and Siddha. In India it is reported that traditional practitioners use more than 2500 plant species to treat various diseases (Pei, 2001). In recent years, there has been a tremendous interest on medicinal plants especially those used in Ayurvedic and other traditional systems of medicines. Drugs obtained from plant are believed to be much safer and exhibit a remarkable efficacy in the treatment of various ailments. Allopathic drugs have brought a revolution throughout the world but the plant based medicines have its own novel properties. There is an urgent need to document the ethno biological information presently existing among the diverse communities before the traditional knowledge is completely lost (Rao,

1996).

Indian traditional medicine is based on different systems such as Ayurveda, Siddha and Unani used by various tribal communities (Gadgil, 1996; Maheshwari, 1983). In recent years, traditional ethno-botanical studies have received much more attention due to their wide acceptability and fact for novel properties (Tripathi, 2000). There is an increasing demand to reveal the role of ethnobotanical studies in trapping the centuries old traditional folk knowledge as well as in searching new plant resources of food, drug etc. (Jain, 1987, 1991). People living in the developing countries rely quite effectively on traditional medicine for primary health care (Sullivan and Shealy, 1997; Singh, 2002).

The assessment and documentation of the traditional medicinal knowledge is important for the Indian society. Ethno-botanist over the world has been continuously working to document indigenous medicinal plants. Ethnobotanical studies on Medicinal plants were carried out by various research groups (Chopra et al., 1956; Hassan and Khan, 1996; Mahendra et al., 2011; Yadav et al., 2012). Rich and diverse forest ecosystems and vast tribal population with traditional knowledge systems due to cultural and environmental diversity in the country have attracted number of researchers for ethnomedicinal studies. Skin disease is a common ailment and affects almost all age groups and cause harmful effects in various ways. In this study, various medicinal plants were surveyed to assess their therapeutic potential in managing various diseases. Ethnomedicinal exploration was conducted in the various localities of the Western Ghats, Kanyakumari District, Tamilnadu and numbers of data on the uses of indigenous medicinal plants were recorded.

MATERIALS AND METHODS

Survey and identification of medicinal plants

Survey and collection of ethnomedicinal plants used by the Kanikars tribe of Kanyakumari District, Tamilnadu, India was carried out over a period of 12 months (2012-2013). Frequent field trips for ethnobotanical exploration were carried out during this period. Information about the medicinal plants was documented from Kanikars having traditional knowledge about indigenous medicines. The information obtained from the tribal groups was verified with other groups of Kanikars from different habitats. The applications of these medicinal plants, such as, mode of administration and dosage were documented. All the specimens collected from the fields were identified with the help of the help of flora books (Hooker, 1884; Gamble, 1936; Henry et al., 1987; Matthew, 1983) and regional floras, then confirmed by comparing with the authenticated

specimens in the Herbarium of Botanical Survey of India (Southern Circle) Coimbatore district, Tamil Nadu.

RESULTS

The present study reports 15 medicinal species are widely used to treat various types of skin diseases. Data on medicinal properties of plants are arranged alphabetically in the following sequence: scientific name, family, habit, vernacular name if any, parts used and modes of use.

Medicinal plants and preparation of traditional medicine

***Clerodendrum inerme* (L.) Gaertn** (Sankankuppi) Family: Verbenaceae

Leaf extract was mixed with bawax resin of *Vateria indica* and seeds of *Nigella sativa* and made in to a paste. It was placed on a water bath and cooled before applied. It was used to treat cure various skin diseases.

***Coix-Lacryma-jobi Linn* (**Pavilamani) Family: Gramineae

Fruits are generally used as food. Coix is used to treat skin diseases, such as acne and other swelling.

Diploclisia glaulescens (Blume) Diels **(**Erumaithirankodi**)** Family: Menispermaceae

Ten gram of dried leaves is soaked in 100 ml of coconut oil for few days to extract the seconday metabolites. The oil infusion is externally applied thrice a day to treat leprosy and scabies.

***Erythrina variegata* Linn. (**Mullumurukku**) Family:** Fabaceae

Dicotion of bark is mainly used to treat various types of skin diseases.

***Ficus benghalensis* L (**Alamaram**) Family:** Moraceae

Bark and latex is useful to treat various skin diseases. The stem latex is applied on the cracked feet twice a day for a week for healing cracks on the feet.

***Ficus religiosa* L. (**Arasu**) Family:** Moraceae

Appling stem latex twice a day for a week can heal the fissures in the foot. The paste of the powdered bark is used to treat skin diseases.

***Glycosmis pentaphylla* (Retz). (**Malaekulukki**) Family:** Rutaceae

Bitter juice of leaves is used to treat fever and liver diseases. Leaves with ginger are applied to treat eczema and other skin diseases.

***Hedyotis Corymbosa* (L) Lam. (**Parpatagam**) Family:** Rubiaceae

Whole plant is pounded and is useful in skin diseases.

***Hygrophila auriculata* (Schum) Heine. (**Neermulli**) Family:** Acanthaceae

Paste of leaves are administered orally early in the morning for a week to treat inflammation and urinary infections. Dried leaf powder mixed with castor oil is applied on the affected parts to cure skin diseases.

***Plumbago zeylanica* L (**Venkoduveli**) Family:** Plumbaginaceae

Fresh root paste was mixed with few drops of water. This was boiled for few minutes is applied to reduce swelling.

***Polygala javana* L. (**Periyarnangai**) Family:** Polygalaceae

An infusion of the leaves used to treat skin diseases.

***Ricinus communis* L. (**Amanaku**) Family:** Euphorbiaceae

Seeds are grinded with neem oil and applied externally to cure pimples. Infusion of root is useful to treat skin diseases.

***Solanum torvum* SW. (**Chundai**) Family:** Solanaceae

The root are useful to treat cracked feet and infusion of root is useful for skin diseases.

***Tactona grandis* L. (**Thekku**) Family:** Verbenaceae

Tender leaves are crushed and the extract is mixed with powder of *Curcuma aromatica* as a remedy for skin diseases.

***Glycyrrhiza glabra* Linn. (**Atimaturam**) Family:** Fabaceae

Paste is prepared from pounded stem and *Withania somnifera* root is applied on the affected parts to cure leucoderma and other skin diseases.

DISCUSSION

Skin health is very fundamental to total health. The skin, hair, glands and nails is the part of the integumentary system, the largest and most versatile organ system in the body (Wardlaw

et al., 2002). Skin serves to protect our bodies from the external environment but is extremely susceptible to microbes that influence the health of human. Plants have traditionally served as important weapon against various pathogens. In aboriginal system of traditional medicines, people have been mainly dependent on plant products and have widely believed in their various remedial properties for a very long time. In certain areas, these folk medicinal prescriptions are endemic and have survived over hundreds of years. This traditional knowledge accumulated over the years is improved upon and disseminated orally from one generation to another in the form of folklore and folk sayings and contributed to the accumulation of a complex wealth of knowledge and skills.

The local people preferred to prepare medicines by combining several plants since the combination rapidly cures the diseases and also enhance the immunity power of the patients. This is constant with the other general observation which has been reported earlier in relation to medicinal plant studies by the Indian Traditional System of Medicine like Siddha and Ayurveda (Kirtikar and Basu 2001; Gogate 2000). Different plants of these species, such as leaf, stem, bark, rhizome, flower, fruit, root, tuber, endosperm and latex were used in different forms like juice, decoction, and paste for management of various ailments as medicine. The drug usage is generally taken orally. Many researchers have reported the potent applications of various herbal remedies for skin ailments and have confirmed potentials for *Amaranthus spinosus* (Kumar et al., 2009), *Ficus religiosa* (Kalyon et al., 2009), *Buchanania lanzan* (Chitra et al., 2009), *Michelia Champaca* (Shanbhag et al., 2011), *Flacourtia indica* (Gopi et al., 2012) and *Solanum nigrum* (Gogoi and Islam, 2012). Potential applications are more preferred for the management of skin diseases (Ayyanar and Ignacimuthu, 2005). Of the reported growth forms, herbs make up the highest proportion of the medicinal species.

CONCLUSION

It is concluded that the persistence of folk medicine practices of Kanikar tribals in Kanyakumari District, Tamil Nadu. The triblas are still depending on indigenous knowledge for their health care, providing a cheaper, biological safe and accessible alternative to the high cost pharmaceutical remedies. The possible benefit of plant-derived medications constitutes a rewarding area of research, particularly in countries such as India which have a rich biodiversity of plant resources coupled with a high prevalence and variety of infectious diseases. Therefore, documentation of these plants is the only way to preserve

the traditional knowledge of the plant resources.

AUTHORSHIP

All authors have made substantial contributions to the conception and design of the study, acquisition, analysis and interpretation of data. All authors revised the manuscript and approved the final version.

REFERENCE

1. Ayyanar M, Ignacimuthu S. Ethnomedicinal plants used by the tribals of Tirunelveli hills to treat poisonous bites and skin diseases. Ind J Traditional Knowl, 2005; 4: 229-236.
2. Chitra, Dharani V, Prasad P, Kumar K, Alla N. Wound healing activity of alcoholic extract of Buchanania lanzan in albino rats. Int J Chem Tech Res, 2009; 1:1026-1031.
3. Chopra RN, Nayar SL, Chopra IC. Glossary of Indian Medicinal Plants. CSIR, New Delhi, 1956.
4. Gadgil M. Documenting diversity: An experiment. Curr Sci, 1996; 70(1): 36.
5. Gamble JS. Flora of the Presidency of Madras. I–III. London: Allard & Co.; 1936. (Reprinted -1956) Botanical Survey of India, Calcutta.
6. Gogate VM. Ayurvedic Pharmacology and Therapeutic Uses of Medicinal Plants (Dravyagunavigyan), Frist ed. Bharatiyar Vidya Bhavan (SPARC), Mumbai Publications, 2000; 421- 422.
7. Gogoi P, Islam M. Ethno medicinal Study of *Solanum nigrum*L and *S. myriacanthus* Dunal Used by Tribals and Non-Tribals from Districts of Upper Assam, India. Asian J Exp Biol Sci, 2012; 3: 73-81.
8. Gopi CK, Karthikeyan M, Kannan M, Rajasekar. Flacourtia indica(Burm. f.) Merr.-A phytopharmacologicalreview. Int J Res Pharmaceut Biomed Sci, 2012; 3: 78-81.
9. Hassan MA, Khan MS. Ethnobotanical records in Bangladesh - Plants used for healing cuts and wounds. Bangladesh J Plant Taxon, 1996; 3(2): 49-52.
10. Henry A N, Kumari GR, Chitra V. Flora of Tamil Nadu, India, Series 1: Analysis Botanical Survey of India. Coimbatore: Southern Circle; 1987.
11. Hooker JD. The Flora of British India. L. Reeve and Co kent, 1884.
12. Jain SK. Dictionary of Indian Folk Medicine and Ethnobotany. Deep Publications, New-Delhi, 1991.
13. Jain SK. A Manual of Ethnobotany. Scientific Publishers, Jodhpur, India, 1987.

14. Kalyon R, ShivaH, Sibaji S. Wound healing potential of leaf extracts of Ficus religiosa on Wister albino strain rats. Int J Pharm Tech Res, 2009; 1: 506-508.
15. Kirtikar, K.R, Basu, B.D. (2001). Indian Medicinal Plants, Vol.1. Lalit Mohan Basu, Allahabad, India, 34-35.
16. Kumar SG, Malipatil M, Patil MB. Evaluation of leaves of *Amaranthus spinosus* for antimicrobial and wound healing activity in rats. Adv Pharmacol Toxicol, 2009; 10: 71-74.
17. Maheshwari JK. Development in ethnobotany Editorial. J Econ Taxon Bot, 1983; 4(1): 1-4.
18. Matthew KM. The Flora of Tamilnadu Carnatic. Tiruchirapalli, Tamilnadu, India: The Rapinat Herbarium, 1983.
19. Pei SJ. Ethnobotanical approaches of traditional medicine studies: Some experiences from Asia. Pharmaceut Biol, 2001; 39: 74-79.
20. Rao RR. Traditional knowledge and sustainable development: Key role of ethnobiologist. Ethnobotany, 1996; 8: 14-24.
21. Shanbhag K, Sunitha S, Smita A, Arul K. Effect of Michelia ChampacaLinn.Flowers on burn wound healing in wistar rats. Int J Pharmaceut Sci Rev Res, 2011; 7: 112-115.
22. Singh JS. The biodiversity crisis. A multifaceted review. Curr Sci, 2002; 82(6): 638.
23. Sullivan K, Shealy CN. Complete Natural Home Remedies. Element Books Limited, Shaftsbury, UK, 1997.
24. Tripathi Y C. Ethno medicinal treasure of tribal Rajasthan. J. Non-Timber for Products, 2000; 7: 77-84.
25. Wardlaw P, Gordon M, Kessel M. Perspectives in nutrition, 2002; 5: 85-86.