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Ethnobotanical survey of medicinal plants for Skin diseases and Poisonous bites in Chennampatti range, Erode district, Tamilnadu.

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Abstract : For thousands of years, medicinal plants have played an important role in treating and preventing a variety of diseases. Traditional medicinal practices based on the use of plants account for about 85% of the primary healthcare derived globally. Documentation of ethno-medicinal information have substantial role in illuminating folk knowledge which facilitates the discovery of modern allopathic drugs. The present study was initiated with an aim of documenting the medicinal plants used for treating skin diseases and poisonous bites among the people of surrounding villages in Chennampatti range. The study was conducted through intensive field surveys and about 27 plant species belonging to 20 families and 24 genera have been documented along with their botanical name, family, vernacular name, parts used and mode of preparation using interviews, group discussions and interactions with the village people and traditional healers (nattu vaidhyars). The survey revealed that herbs and trees are largely used for curing skin diseases and poisonous bites followed by climbers and shrubs. Leaves are used highly than other plant parts. The prominent family to which the plant species belong include Euphorbiaceae and Caesalpiniaceae followed by Menispermaceae, Acanthaceae and Rubiaceae. The report of this study would help to preserve the indigenous knowledge on wild medicinal plants for their sustainable utilization and conservation.

Key Words : Ethnobotanical survey, Chennampatti range, Skin diseases, Poisonous bites, Nattu vaidhyars, Medicinal plants.

Introduction

India is one among the 12 mega diversity countries in the world with two hotspots of biodiversity. It is also rich in tribal people, the so called ethnic groups who are said to possess the valuable traditional medicinal knowledge. An important component of this culture and tradition is that of health and healing¹. It is estimated that among 265000 seed plants existing in the earth, only a few to say, 5000 have been studied for their medicinal properties scientifically². Ethno-botany is the study of the uses of plants by indigenous people. Traditional knowledge systems are diminishing rapidly due to the development of scientific and more modernized western systems of medications. In our modern era, science has superseded superstition in explaining the causes of diseases, but still the ethno-botanists struggle to record the folk knowledge in remote areas of the world³. In Tamilnadu, traditional uses of medicinal plants have been documented from many areas⁴⁻⁸ but still there is a scarcity of reports regarding the folk knowledge of medicinal plants. Ethno-botanical survey helps to gain valuable information about indigenous methods of preparation of medicines and medicinal plants curing different ailments⁹. Hence, a study has been conducted to investigate and record the folk knowledge on the local flora used to treat skin diseases and poisonous bites of Chennampatti range and to share it with other

communities. At present, a preliminary survey of medicinal plants has been conducted and also the traditional knowledge of the local inhabitants including Nattu vaidhyars have been documented.

Materials and Methods

Study area

Chennampatti range is a subdivision in Sathyamangalam Tiger Reserve, Erode Circle. This range consists of two divisions viz., Gurusvareddiyur section and Local Thanda section. There are four beats in the former section and five beats in the later section. Three Reserve forests are assigned in this range for the protection of this valuable forest viz., Ennamangalam Reserve forest, South Burgur Reserve forest and North Burgur Reserve forest. The present study was conducted in Gurusvareddiyur section and the study area comprised of 7868.10 ha of total area and lies between 11° 75' N latitude and 77° 69' E longitude with an altitude of about 800 MSL. The vegetation of the study area is of Dry deciduous type. During summer, temperature of the area is about 36°C and during winter the temperature falls about 24°C and the rainfall is about 10mm to 90mm. Ethnographically inhabitants are the village people of Ennamangalam, Kurumanur, Murali, Chennampatti, Komarayanur, Jerathal, Gurusvareddiyur, Sithagoundanur and Thottikinaru.

Methodology

The study was conducted comprehensively during the period 2015 – 2016 to collect and document the medicinally important plant species. The ethno-medicinal information was collected from the local informants and Nattu vaidhyars (traditional medicine practitioner) using interviews, group discussions and interactions with them. Questionnaire method was avoided since the people were not more educated. The plants were collected and identified using Floras¹⁰⁻¹¹.

Enumeration and Discussion

The present study revealed the use of 27 plant species distributed in 24 genera and belonging to 20 families which were used by the local inhabitants and the Nattu vaidhyars for treating ailments such as skin diseases and other poisonous bites such as snake bites and scorpion stings. The documented plant species are presented in Table-1. The prominent family was Euphorbiaceae and Caesalpiniaceae with 3 species each followed by Menispermaceae, Acanthaceae and Rubiaceae with 2 species each. The remaining families were represented with single number of species.

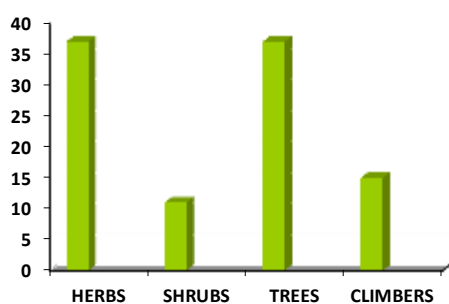


Figure 1. Analysis of Habit with respect to number of species

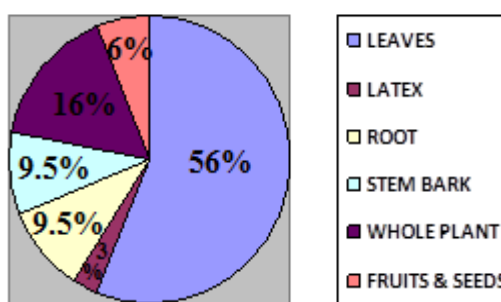


Figure 2. Analysis of plant parts used for preparation of folk remedies

Analysis of life form of documented medicinal plants revealed that herbs (37%) and trees (37%) are largely used for ethno-medicinal preparations followed by climbers (15%) and shrubs (11%) presented in Figure 1. The study also revealed that the leaves are used highly for the medicinal preparations as revealed in Figure 2. Local people use various methods to prepare medicines from the plants traditionally. They use different parts of the plant such as leaves, stem, root, bark, flowers, fruits, seeds, resin, latex, bulb and sometimes in combination or as a whole plant. It is evident from the present study that the traditional knowledge on medicinal plants is limited to healers and some elderly persons. Younger generation is lacking

knowledge in this aspect due to modernization and extensive use of allopathic medication systems¹². Hence, there is a need for the conservation and effective use of traditional medicinal system which can be made possible through scientific evaluation of medicinal plants properties and research on pharmacological and clinical trials level.

Table – 1 Ethnobotanical survey of medicinal plants for Skin diseases and Poisonous bites in Chennampatti range, Erode district, Tamilnadu.

S.No.	Botanical Name	Habit	Vernacular Name	Family	Parts used	Mode of Preparation
1.	<i>Acalypha indica</i> L.	Herb	Kuppaimeni	Euphorbiaceae	Leaves	Paste is applied topically on the affected area which cures skin diseases.
2.	<i>Achyranthes aspera</i> L.	Herb	Nayuruvi	Amarantaceae	Leaves	Extract is taken to treat scorpion sting.
3.	<i>Ageratum conyzoides</i> L.	Herb	Appakkoti, Pumppillu	Asteraceae	Whole plant Leaves	Paste is applied externally to treat inflammation. Paste is applied to treat scabies
4.	<i>Albizzia amara</i> Boiv.	Tree	Unjai, Arappu	Mimosaceae	Stem bark	Paste is used to treat inflammation.
5.	<i>Andrographis alata</i> Nees.	Herb	Periyanangai	Acanthaceae	Whole plant	Decoction of the whole plant is used in treating snake bites.
6.	<i>Andrographis paniculata</i> Nees.	Herb	Siriyangai	Acanthaceae	Leaves	Crushed into paste and taken internally which treats snake bites.
7.	<i>Aristolochia bracteata</i> Retz.	Herb	Adu-thinna-palai	Aristolochiaceae	Leaves	Leaf paste when applied topically on the bitten area treats snake bite.
8.	<i>Atalantia monophylla</i> Corr.	Tree	Kattu elumitchai	Rutaceae	Leaves & Fruits	Decoction is taken orally which treats poisonous bites.
9.	<i>Azadirachta indica</i> A. Juss.	Tree	Vembu	Meliaceae	Leaves	Leaves paste is applied topically over the body to cure skin diseases.
10	<i>Cassia absus</i> L.	Tree	Karum	Caesalpiniaceae	Seeds	Paste is applied topically to treat headache and skin diseases.
11	<i>Cassia fistula</i> L.	Tree	Sarakondrai, Kondrai	Caesalpiniaceae	Stem bark & Leaves	Paste is applied topically on the bitten area to treat snake bite.
12	<i>Cassia occidentalis</i> L.	Tree	Peyavirai, Ponnvirai	Caesalpiniaceae	Leaves	Paste is taken orally to treat skin diseases.
13	<i>Coccinia indica</i>	Climber	Kovai	Cucurbitaceae	Leaves	Juice is taken for

	W. & A.					treating ulcer. Juice is mixed with butter and applied topically to treat skin diseases.
14	<i>Commelina benghalensis</i> L.	Herb	Kanavazhai, Thannir-vazhai	Commelinaceae	Leaves	Juice is applied on wounds and the paste is used as an emollient in treating leprosy.
15	<i>Croton sparsiflorus</i> Morang.	Herb	Sinathamani Chedi	Euphorbiaceae	Latex	The latex is applied externally on the area of wasp bite.
16	<i>Erythroxylon monogynum</i> Roxb.	Small tree	Sempulichan	Erythroxylaceae	Stem bark	Paste is applied topically to treat scabies and skin diseases.
17	<i>Euphorbia antiquorum</i> L.	Small tree	Sathura Kalli	Euphorbiaceae	Latex	Stem latex is applied directly on body to get relief from pain.
18	<i>Evolvulus alsinoides</i> L.	Herb	Vishnu-karanti	Convolvulaceae	Root	Powdered root mixed with hot water and taken orally cures snake bite.
19	<i>Heliotropium indicum</i> L.	Herb	Thelkoduku chedi	Boraginaceae	Whole plant	Paste is applied on the affected area to treat wounds and other skin affections.
20	<i>Pergularia extensa</i> N.E.Br.	Climber	Velipparutti	Asclepiadaceae	Latex	Applied externally on the affected area to cure psoriasis.
21	<i>Randia dumetorum</i> Lam.	Shrub	Madukarei, Karamul	Rubiaceae	Fruits	Fruits are rubbed and the juice is applied topically to treat skin infections.
22	<i>Streblus asper</i> Lour.	Tree	Parai maram	Moraceae	Leaves	Paste is applied topically on the skin to treat infections.
23	<i>Tarenna asiatica</i> (L.) Kutze.	Shrub	Therani	Rubiaceae	Leaves	Paste is applied topically to treat animal bite.
24	<i>Tiliacora racemosa</i> Colebr.	Climber	Perunkattukkodi, Nagamutti	Menispermaceae	Root Leaves	Used as an antidote for snake bite. Paste of the leaves used for healing cut wounds.

25	<i>Tinospora cordifolia</i> Miers.	Climber	Amirdavalli	Menispermaceae	Whole plant	Powder of the whole plant is used in treating skin irritations.
26	<i>Withania somnifera</i> Dun.	Shrub	Amukkara	Solanaceae	Whole plant	Aqueous extract of the whole plant is used in treating snake bites.
27	<i>Wrightia tinctoria</i> R.Br.	Tree	Pala maram	Apocynaceae	Leaves Root	Leaves infusion along with coconut oil is applied topically to treat scabies and psoriasis. Decoction is given repeatedly to treat epilepsy.

Conclusion

The findings of the present study shows that the medicinal plants have greater potentiality to cure skin diseases and poisonous bites. Still there is a need of such kind of studies in the present study area. In addition to this, ecologists should pay more attention on conservation studies of this area to preserve genetic diversity.

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References

1. Haribai Rabari, Ethnomedicinal value of plants found in Dhinodhar hills of Kachchh region of Gujarat, *Int J Pharm Bio Sci.*, 2016,7(2), 160-163.
2. Muhammad, A.A., Muhammad, A., Amir, H.K., Atiq, U.R., Rahmatullah, J. and Jafar, K. Ethnomedicinal survey of important plants practiced by indigenous community at Ladha subdivision, South Waziristan agency, Pakistan, *J Ethnobiol Ethnomed.*, 2016, 12, 53.
3. Cox, P.A., Will tribal knowledge survive the millennium, *Science*, 2000, 287, 44-45.
4. Francis Govindasamy, B. and Rajendran, A., Ethnobotany of irular tribes in redhills, Tamilnadu, India, *Asian Pac J Trop Dis.*, 2012,2(S), 874-877.
5. Senthilkumar, K., Aravindhan, V. and Rajendran, A.. Ethnobotanical survey of medicinal plants used by Malayali tribes in Yercaud hills of Eastern ghats, India, *J Nat Remedies.*,2013, 13(2), 2320-3358.
6. Selvarasu, and Vasuki, M., Ethnomedicinal Flora of Ivanur panchayatin Cuddalore district, Tamilnadu, India, *Int J Res Plant Sci.*, 2013,3(2), 39-46.
7. Kingston, C., Jeeva, S., Jeeva, G.M., Kiruba, S., Mishra, B.P. and Kannan, D., Indigenous Knowledge of using medicinal plants in treating skin diseases in Kanyakumari district, Southern India, *Indian J Traditional Knowledge.*, 2009,8(2), 196-200.
8. Sathishpandiyar, S., Prathap, S., Vivek, P., Chandran, M., Bharathiraja, B., Yuvaraj, D. and Smila, K.H., Ethnobotanical study of medicinal plants used by local people in Ariyalur district, Tamilnadu, India, *Int J ChemTech Res.*, 2014, 6(9), 4276-4284.
9. Nitya Sharma. and Smita Sahu. Traditional medicinal knowledge: Answer to the post-partum healthcare needs of the tribes of Chhattisgarh, *Int J Pharm Bio Sci.*, 2016,7(4), 184-191.
10. Gamble, J.S., *Flora of the Presidency of Madras*, Neeraj Publishing House, Delhi, 1957.
11. Kirtikar, K.R. and Basu, B.D., *Indian Medicinal Plants*, International Book Distributors, India, 2006.

12. Raut Smita., Raut Sangeetha., Sen Sudip Kumar., Satpathy Soumya. and Pattnaik Deepak., An Ethnobotanical survey of medicinal plants in Semiliguda of Koraput district, Odisha, India, Res. J. Recent Sci., 2013,2(8), 20-30.
