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Research Article

TRADITIONAL USES OF MEDICINAL PLANTS IN TREATING SKIN DISEASES IN NAGAPATTINAM DISTRICT OF TAMILNADU, INDIA

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ABSTRACT
The present documented the traditional knowledge of Medicinal Plants species used in various type of skin diseases in Nagapattinam district. We have documented the use of 50 species belonging to 26 families. The information on plants used as traditional medicine against skin diseases was gathered and ethnomedicinal survey based on interviews with local people involved in traditional herbal medicine practices. The particulars plants are used to cure variety of skin diseases, like swelling, wound healing, psoriasis, scabies, eczema, dandruff, tinea versicularis, tinea cruris, impetigo, skin parasities, leucoderma, leucoderma, leprosy, rash, etc. the studies carried out for the time in this area, the medicinal plants used by traditional users of N agapattinam district were arranged by botanical name, family, local name, habit, mode of preparation and uses.

Keywords: Medicinal plants, skin diseases, Ethno medicine, Traditional knowledge, Nagapattinam district.

INTRODUCTION

An ethnomedicinal survey was undertaken to collect information from traditional use of the medicinal plants in Nagapattinam District of TamilNadu. Folk medicine has medicine has been used for thousands of years with significant contributions made by its practitioners to human health, particularly as primary health care providers at the community level[1].Traditional folk medicine uses the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to its cultures, for maintenance of health. It holds a heritage of community acceptance, and is solely based on the expertise gained by local herbalists over a period of time[2,3]. It has been estimated that folk healer in India use approximately about 2500 species serve as regular sources of medicine[4]. Plant extracts used in ethnomedical treatment is enjoying great popularly, however, lacks, scientific validation[5,6,3]. Use of traditional medicine has changed dramatically over the due to its affordability, availability, acceptability and accessibility[7]. World Health Organization estimates over 80% of the people in developing countries depend on traditional medicines for their primary health needs[8]. All different organisms, medicinal plants have been greatly considered by rural communities as they improve the economy of rural people[9,10]. India's traditional system of medicinal is related to richness of herbal plants biodiversity and cultural biodiversity. Indigenous knowledge on natural resources utilization medicinal plants not exceeding the resilience of the surrounding environment is regarded as an important measure of sustainable plants biodiversity conservation[11].When such indigenous knowledge is being lost, people forced to change their livelihoods often serve environmental degradation [12,13]. An attempt was made to explore the traditional healthcare system of using medicinal plants by the community of Nagapattinam district for the treatment of various of skin problems and ailments. The kodaikkarai forest is the famous in Nagapattinam district. The forest is a home of 154 medicinal plant species like *Mucuna pruriens, Solanum trilobatum, Tinospora cordifolia, Randia dumatorum* and *Cissus quadragularis*

BACKGROUND

Plants have been used in traditional medicine for several thousand years[14]. The knowledge of medicinal plants has been accumulated in the course of many centuries based on different medicinal systems such as Ayurveda, Unani and Siddha. In India, it is reported that traditional healers use 2500 plants species of plants and 100 species of plants serve as regular sources of medicine [15]. During the last few decades there has been increased interest in the study of medicinal plants and their traditional use in different parts of the world[15,16]. Documenting the indigenous knowledge through ethnobotanical studies is important for the conservation and utilization of biological resources.

The important thing is the World Health Organization (WHO), as many as 80% of the World's people depend on traditional medicine for their preliminary health care needs. There considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases[17]. In the developed countries, 25% of the medicinal drugs are based on plants and their derivatives[18]. A group of World Health Organization (WHO)experts, who met In Congo Brazzaville in 1976, sought to define traditional African medicine as the sum total of practices, measures, ingredients and procedures of all kinds whether material or not, which from time immemorial has enabled the African to guard against diseases, to alleviate his/her suffering and to cure him/herself[19]. During the course of exploration of ethnomedicinal plants of the district, the information shave been gathered from the healers of rural villages found near areas where the people depend mostly on forests for their need and have sound knowledge of herbal remedies

METHODOLOGY

An Ethnomedicinal survey for using medicinal plants in using skin treatments at Ngapattinam district were carried out during (2010 to 2011). The information on plants used as traditional medicine against skin diseases was gathered an ethnomedicinal survey based on interviews with local people involved in traditional herbal medicine practices. The medicine property of the plants was confirmed by similar uses from at least 10 informants. The particular plant specimens collected from the field with their local names were identified with identified with help of regional and local floras. The plant specimens were deposited with help of regional and local floras. The plants specimens were

deposited in the herbarium of Botany Department, Annamalai University, and Annamalai Nagar.

MATERIALS AND METHODS

Ethnomedicinal dates were collected through general conservation with the informants with the help of method[1]. The interviews were used to obtain information on medicinal plants with their local names, parts used, mode of preparation and administration. A total of 10 informants, comprising 7 males 3 females were identified the age limit on 49 to 75. They were selected based on their knowledge of medicinal plants either for treatments or for treating for others. The informants were asked to field and show the plants with local name; the species mentioned by the informants were taxonomically identified

RESULT AND DISCUSSION

The present study revealed that the local people of Nagapattinam people were using 49 species of medicinally important plants belonging to 26 families. The most medicinally important plant species were observed in different families like Araceae, Rutaceae, Papaveraceae, Liliaceae, Meliaceae, Fabaceae, Caesalpinaceae, Acandhaceae, Amarylidaceae, Zingberaceae, Poaceae, Solanaceae,Euphobiaceae, Sapotaceae, Verbanaceae, Piperaceae, Apocynaceae, Moraceae, Amaranthaceae, Asteraceae, Combretaceae, Leguminaceae, Anacardiaceae Alanginaceae, Cruciferae, Caesalpinaceae, Acandhaceae, Amarylidaceae, Zingiberaceae, Poaceae, Solanaceae, Euphorbiaceae, Sapotaceae, Verbanaceae, Piperaceae, Apocynaceae, Moraceae, Amaranthaceae, Asteraceae, Combretaceae, leguminaceae, Anacardiaceae, Alanginaceae, crucciferae. These are commonly occurring medicinally important plants used to treat various type of skin diseases, lile Swelling, Wound healing, Psoriasis, Scabies, Eczema, Dandruff, Tinea versicularis, Tinea cruris, Impetico, Skin parasities, leucoderma, Leprosy, Rash, etc.

The local people preferred preparing 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 Ayurvedha[20,21] different plants of these species, such as leaf, stem, bark, fruit, seed, root, tuber and latex were used in different forms like crude, powder, juice, decoction, infusion and paste for management of various ailments as medicine. The drug usage is generally taken by orally. Medicinal preparations attained from either a part of a single the different types of preparation made from medicinally important plants included decoction juice, powder, paste, oil, and whole plant.

Extract majority of the plants preparation were in the Form of leaf paste like, *Strebulus aspera, Leucas aspera, Achyranthus aspera, Landana camera, Cipadessa baccifera, Cassia ariculata, Hygrophila ariculata, Lawsonia inermis, phyla nodiflora, Acalypha ciliate, Acalypha indica, Clerodendrum phlomides, Phyllanthus reticulates, Spilanthes calva, Ficus retusa, Rubia cordifolia, Piper betle, Wringhtia tinctoria.*

The leaf juice were attained like *Mimosa pudica, Solanum nigrum, Clitoria ternatea, Eclipa alba, Andrographis paniculata, Datura metal, Tridax procumbens, Phyla nodiflora*,

The root and fruit used as *Terminalia ballerica, Asparagus racemosus, Cynodon dactilon. Seed used as Agel marmelous, Argemone Mexicana, Calophyllum inophyllum, Medhuca longifolia, Brassica junicea, Cassia tora.* Rhizomes and bulbs used as *Azardiracta indica, Eichornia crassipes*. Latex used as *Euphobia hirta, Argemone Mexicana*. Bark used as *Indigofera aspalathoides*, *Pongamia pinnata, Ficus religiosa, Terminalia bellerica.* Stem used as *Glycyrrhiza glabra*. Stem bark and gum used as *Manjifera indica* are used to treat skin diseases in Nagapattinam district.

Medicinal plants an important role in providing knowledge to the researchers in the field of ethno botany and ethno pharmacology. The observations of present study showed that traditional medicine plays a significant role among the local people of Nagapattinam. Data collected from the Nagapattinam district were present with available data in other category of remidies in many diseases like stomach disorder, snake bite, fever, cough, sterility problems, cancer, liver problems, problems in hair growth and body heat, Diabetes, Bone fracture, Cold swelling, Asthma and other breathing problems.

An interesting observation was that some medicinally important plants such as *Androgrphis paniculata, Acacia tora, Leucas aspera, Phyllanthus amarus, Sespania aegyptiaca, Lanunaea pinnnatifida, Euphobia heretophylla, Ocimum basilicum, Mukia maderaspatans, Withania somnifera,* were found to be practiced as important medicinal plants in Nagapattinam district. Most of the plants used by the local people are not conserved but are over exploited. It is therefore necessary to find the ways of promoting the local people towards conservation as Shenji (1994) suggested that ethnobotany is the science of documenting the traditional knowledge on the use of plants by the indigenous people and for further assessing human interactions with the natural environment.

CONCLUSION

The result of my study demonstrated the persistence of folk medicine practices to cure in different kinds of skin diseases in Nagapattinam district, that the people are still dependent on indigenous knowledge for health care that are being influenced by culture and socioeconomic aspects, providing a chapter and accessible alternative to the high cost pharmaceutical remedies. Preservation of the indigenous knowledge of plants used in traditional health care is very important. Folk medicines were found to play important role in life of people. Due to increase of knowledge in traditional system of medicine with proper documentation and identification of specific specimens.

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Table:1 List of plants used by Nagapattinam tribes for treatment of skin diseases

S.No	Botanical name	Family	Local Name	Habit	Parts used	Method of preparation and mode of usage	Diseases
1	*Acorus calamus*(Linn)	Araceae	Vasambu	Shrub	Rhizomes	Pounded rhizomes along with *Curcuma aromatica* rhizomes and *Azardiracta indica* leaves are applied twice a day bathing and before bedtime for one week	Eczema
2	*Acalipha indica* Linn.	Euphorbiaceae	Kuppaimeani	herb	leaf	Leaves ground with turmeric and fine paste applied on affected areas	To cure skin diseases
3	*Achyranthus aspera* Linn.	Amaranthaceae	Nauruvi	herb	leaf	Leaf paste with onion paste is applied externally on the bitten site of dog and to cure skin diseases	Rabies, skin diseases
4	*Agel marmelos* Linn.	Rutaceae	Vilvam	tree	Fruits	Fruits crushed with seeds of *Stychnose nuxvomica, Pongamia pinnata* and boiled on the affected parts	To cure scabies
5	*Andrgraphis paniculata* Linn.	Acanthaceae	Nilavembu	Erect annual herb	leaf	Leaf juice mixed with cow milk is taken orally twice a day for six to eight days	To cure tines cruris
6	*Argemone Mexicana* Linn.	Papaveraceae	Premathand-u	Annual herb	seeds	Pounded seeds along with rhizomes of *Curcuma aromatica* and *Acorus calamus* made into paste are applied twice a day	Skin diseases
7	*Artocarpus heterophillus* Lam	Moraceae	Jack fruit	tree	leaf	Dried leaf ash is mixed with caster oil and applied once a day	To cure skin diseases
8	*Asparagus recemosa* Willd..	Lilliacea	Thnnervittan kizhangu	An under shrub	tuber	Tuber along with the leaves of *Plumbogo indica* made into paste is applied once day	Skin diseases
9	*Azardiracta indica* A.Juss	Meliceae	vasambu	tree	flowers	Flowers boiled in gingili oil (*Sesamum indicum*)is applied on head against dandruff once days in the morning after taking bath	Dandruff
10	*Brassica iunceae* (Linn) C zern	Cruciferae	Mustard greens	shrub	seeds	Seed oil is applied externally	To cure skin diseases
11	*Cassia alata* Linn.	Fabaceae	Seemai agathi	Shrub and trees	leaves	Pounded leaves. Coconut oil and bee wax made into paste is applied on the affected parts, once daily in night before bed time for four days	To cure tinea versicularis
12	*Cassia auriculata* Linn	Caesalpiniaceae	Avarai	shrub	Dried leaves	Dried leaf paste in vinegar is applied on once a day till cure	Skin diseases
13	*Clioria ternatea* Linn	fabaceae	Sangupoo	climber	leaf	Leaf juice is given orally twice a day for six day	To cure scabies
14	*Cassia tora* Linn.	Leguminaceae	Chinese senna	shrub	seed	Seeds ground with buttermilk and the paste applied on ithching areas	To cure skin problem
15	*Calophyllum inophyllum* Linn.	Guttiferae	Punnai	Tree	seed	Oil of seeds applied in affected areas	To cure scabies and other skin diseases and for rheumatism
16	*Cipadessa baccifera* Miq.	Meliaceae	Seeruholi maram	tree	Root, leaf and bark	The paste of root, leaf and bark is applied topically	To cure psoriasis
17	*Crinum defixum* Ker.	Amaryllidaceae	vishanarayani	Perennial herb	bulbs	Pounded bulbs mixed with hot water is given orally twice a day for three days	To cure tinea crusis
18	*Clerodendrum phlomides* Linn	Verbenaceae	Carakkai	Shrub and small tree	kkeaves	Leaf paste applied on affected areas	To cure skin diseases
19	*Curcuma aromatica* Sal.	zingiberaceae	kasturimanjal	Perennial herb	rhizomes	Rhizomes and *Terminalla chebula* seeds made into paste is applied on the affected parts twice a day	To cure impetigo
20	*Cynodon dactylon* (Linn) PERS.	Poaceae	arugampullu	Perennial grass	leaves	Pounded leaves boiled coconut oil is applied once a day till the cure	Various type of skin diseases
21	*Datura metal* Linn.	Solanaceae	Ummattai	shrub	leaves	Leaf juice along with *Curcuma araomatica* rhizomes made into a paste is applied on places	Swelling

22	*Eclipta alba*(Linn) Hassk	Compositae	karisalangann i	herb	leaves	Its extract Into a paste is applied on places	Swelling
23	*Eichornia crassipes* Solms Laub	Pontederiaceae	Akasa thamarai	The million dollar weed	flower	Flower oil is applied for twice in a day	To cure skin diseases
24	*Euphorbia hirta* Linn.	Euphorbiacea	ammanpacch arisi	weed	latex	Latex is applied twice a day	To cure skin parasite
25	*Ficus religiosa* Linn.	Moraceae	arasu	Tree or sacred tree	Stem bark	Stem bark poultice applied externally	To cure skin diseases
26	*Ficus retusa* Linn. Moraceae	moraceaea	athimaram	tree	Leaf and fruit	Paste of lea along with their fruit comeed with cumin is taken orally	To cure swelling
27	*Glycyrrhia glabra* Linn.	fabaceae	athimathuram	Hardly herb or under shrub	stem	Paste prepared from pounded stem and *Withania somnifera* roots is applied on the affected parts once a day for one year	To cure leuoderma and other skin diseases
28	*Hygrophila auriculata*(Schum)Heine.	Acanthaceae	neeermulli	Erect annual herb	Leaf	Dried leaf powder mixed with castor oil is applied twice a day till recovery on the affected parts	To cure skin diseases
29	*Indigofera aspalathoides* Vahi.	Fabaceae	sivanarvembu	Much branched glabrous shrub(or) small tree	Bark	Powdered bark mixed with coconut oil is applied twice a day for six months on the affected parts	To cure lepros
30	*Landana camera* Linn.	Verbanaceae	Unichedi	Shrub	leaf	Leaf paste is applied topically to treat wounds	Wound healing
31	*Lawsonia inermis* Linn.	Verbanaceae	Vella unnichedi	shrub	leaf	Leaf the leaf is ground with *cipadessa baccifera* root, leaf and bark and applied topically	To cure Psoriasis
32	.	Lytheraceae	marunthonri	shrub	Leaf	The fresh leaves are ground and gargled to treat mouth ulcer	To cure mouth ulcer
33	*Lindernia crustaceaen* (Linn)Muel	Scorphularaceae	Malaysia false pimpernel	shrub	Whole plant	Plant poultice applied externally on affected areas	To cure skin diseases
34	*Leucas aspera*(wild)Link	Labiatea	Thumbai	herb	leaf	The constant rubbing of leaves over effected area can provide relief	Scorpion bite
35	*Madhuca longifolia* (Koenig) Maruthani	sapotacea	Eluppai	Tree	Seeds	Pounded seeds mixed with leaf extract of *Ocimum tenuiflorum* are applied on the affected parts twice a day	To cure skin diseases
36	*Manihot esculenta* Crantz	Euphorbiaceae	Maravalli kilangu	shrub	Rhizomes	The bitter variety is used for treating scabies and weeping skin	Skin diseases
37	*Mangifera indica* Linn.	Anacarddiaceae	Mango tree	tree	Gum, stem bark	Gum combined with bark paste is applied on affected areas	To cure skin diseases
38	*Mimosa pudica* Linn.	mimosaceae	Thotta sinungi	Herb	leaf	Root and leaf infusion is applied on the wounds	Wound healing
39	*Phyla nodiflora* (Linn)Greene.	verbanaceae	poduthalai	Small shrub	leaf	Paste prepared from leaf juice mixed with equal amount of gingili oil and boiled is applied twice a week on head	To cure dandruff problems
40	*Phyllanthus reticulas* Poir.	Euphorbiaceae	Karunelli	Large shrub	Leaf	Leaf paste applied on areas	
41	*Piper betle*	Piperaceae	vettilai	Perennial creeper	leaves	Leaves pounded with *Allium sativam* bulbs is applied on the affected parts once a day in the morning after bath	To cure versicularis
42	*Pongamia pinnata*(Linn)	Fabaceae	Punkai maram	Tree	Bark	Crushed bark paste boiled in gingili oil is applied on the affected parts twice a day for four days	To cure rash
43	*Rubia cordifolia* Linn.	rubiaceae	Chevvali kodi	tree	Bark	The leaf paste is applied topically to scorpion sting and dizziness	Scorpion sting
44	*Solanum nigrum* Linn.	Solanaceae	Manathakkali	Shrub	Leaf	Leaf juice applied externally	To cure itching
45	*Spilanthes calva* Murr.	compositeae	Manjal poo chedi	Annual erect (or)ascendi ng stout herb	Flower and leaves	the flower head are chewed to relive the toothache and other mouth related troubles. The leaves are used externally in treatment of skin diseases	Skin diseases
46	*Strebulus aspera* Lour.	Moraceae	Kembara	Shrub	Leaf	Leaf paste is applied topically to treat measles like swelling in the skin	Skin diseases
47	*Tridax procumbens* Linn.	Asteraceaae	Mookuthi poo(chedi)	Herb	Leaf	leaf juice is applied topically on wounds	Skin diseases
48	*Terminalia bellarica* Roxb.	Combretaceae	Thaanimaram	Tree	Bark and root	The bark and root are grind and took extract, which is applied topically to treat	Skin diseases
49	*Wringhtia tintoria*	Apocynaceae	Veppalai	Tree	Leaves	Pounded leaves mixed with coconut oil are applied twice a day	To cure psoriasis

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