

Ethnobotanical Survey of Medicinal Plants used by Traditional Healers in Krishnagiri District of Tamilnadu

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Abstract: An ethnobotanical survey in Krishnagiri district of Tamilnadu have revealed a wealth of traditional knowledge on medicinal plants and their uses amongst the local traditional healers. The indigenous knowledge of local traditional healers and the native plants used for medicinal purposes were collected through questionnaire, group discussion and personal interviews during field trips. The study was focused on identifying folklore medicinal plants, disease treated, part of the plant used, methods of preparation, route of administration, ingredients added etc. From the survey, a total of 165 plant species belonging to 58 families were found to be useful in the treatment of various diseases. In this study the most dominant family was Papilionoideae and Rubiaceae. Folklore and traditional medicinal plants are important contributor for various ailments of local rural communities. It is urgent need for documenting these plant species before such valuable knowledge becomes inaccessible and extinct. Moreover, this study could play an important role for the conservation of these plants and represent the preliminary information required for future phytochemical and pharmacological investigation.

Keywords: Medicinal plants, Traditional knowledge and Treatment of various diseases

1. Introduction

Ethnobotany is the study of the interactions and relationships between plants and people over time and space. This includes the uses, knowledge, beliefs, management systems, classification systems and language that both modern and traditional cultures have for plants and their associated terrestrial and aquatic ecosystems. During the last few decades, there has been an increasing interest in the study of medicinal plants and their indigenous uses in different parts of the world. According to WHO [1], about 85% of the world's population, especially in the rural areas depends on herbal medicine for their healthcare needs. The ethnic people residing in different geographical belts of India depends on wild plants to meet their basic requirements and all the ethnic communities have their own pool of secret ethnomedicinal and ethno-pharmacological knowledge about the plants available in their surroundings [2,3,4,8], which has been serving rural people with its superiority.

Traditional medicine (also known as indigenous or folk medicine) comprises knowledge systems that developed over generations within various societies before the era of modern medicine [5]. World Health Organization (WHO, 2003) however, defined traditional medicine as the health practices, approaches, knowledge, and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. Therefore, it is urgent to explore and document this unique and indigenous, traditional knowledge of the rural community, before it diminishes with the knowledgeable persons. Further, documentation of indigenous and traditional knowledge is very important for future critical studies leading to sustainable utilization of natural resource and to face the challenges of bio-piracy and patenting indigenous and traditional knowledge by others. Besides to the best of our knowledge no ethnobotanical work

has been carried out in this area. Keeping these things in mind present study was proposed to document the ethnomedicinal knowledge of traditional healers in Krishnagiri district, Tamilnadu state, South India.

Krishnagiri district is a district in the western part of the state of Tamil Nadu, in India. This district is carved out from Dharmapuri District by 2004. The municipal town of Krishnagiri is the district headquarters. Krishnagiri district covers an area of 5143 km². Krishnagiri district is bound by Vellore and Thiruvannamalai districts to the east, state of Karnataka to the west, the state of Andhra Pradesh to the north and Dharmapuri District to the south. The important crops of Krishnagiri District are paddy, maize, ragi, banana, sugarcane, cotton, tamarind, coconut, mango, groundnut, vegetables and flowers. The district has an excellent scope for agri-business. The local people used in the traditional medicine system of medicinal plants in surrounding area. The people used in medicinal plants in first aid only, it is not permanent solution, because they far away from the hospital. So some commonly used medicinal plants list collected in the nattuvaithiyar and medicinal practitioners.

2. Materials and Methods

Study area

Krishnagiri district is a district in the western part of the state of Tamil Nadu, in India. This district is carved out from Dharmapuri District by 2004. The municipal town of Krishnagiri is the district headquarters. Krishnagiri district covers an area of 5143 km². Krishnagiri district is bound by Vellore and Thiruvannamalai districts to the east, state of Karnataka to the west, the state of Andhra Pradesh to the north and Dharmapuri District to the south. This district is elevated from 300m to 1400m above the mean sea level. It is located between 11° 12' N and 12° 49' N latitude, 77° 27' E to 78° 38' E longitude. *Krishna* refers to 'black' and *giri* refers to 'hill'. The important crops of Krishnagiri District are

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paddy, maize, ragi, banana, sugarcane, cotton, tamarind, coconut, mango, groundnut, vegetables and flowers. The district has an excellent scope for agri-business. The Regional Agricultural Research Center of Tamil Nadu Agricultural University has been functioning efficiently at Paiyur in Kaveripattinam union since 1973. This center functions in 18.5 hec. of land. It helps the peasants to develop and adopt the modern technique of cultivation. It has developed hybrid seeds by research which yields more tonnage and good quality. Krishnagiri district is famous for mangoes, and for the granite industry with quarries and processing units spread around the district. As Krishnagiri District has 2,02,409 hectares of forest land which constitutes 39% of the total geographical area, there are abundant produce from the forest areas. Bamboo products, honey collection and tamarind production are the forestry land activities found in Anchetty, Denkanikotta, Thally and Berigai areas. This has generated employment opportunities for thousands of rural people in these areas.

Data collection

The field study conducted an extensive field survey in the rural area belts and other interior villages. First hand information was gathered through interactions with rural people including members of forest protection committees. During the field survey interact with traditional uses and Natuvaithiyam about the local common diseases and using the drugs for those diseases. The ethnobotanical data (local name, useful parts, and medicinal uses) were collected through the rural peoples in and around study area. In addition to the vernacular names and medicinal uses detailed information about mode of preparation (i.e., decoction, infusion, paste, powder and juice) form of usage with fresh or dried mixture of other plants used as ingredients were also collected.

The collected plant species were identified taxonomically using the Karnatic flora [6] and the flora of Tamil Nadu Carnatic [7], Indian medicinal plants and dictionary of medicinal plants. The plants are arranged alphabetically by botanical names, family, local name, useful part and ethnobotanical uses for different diseases.

3. Results and Discussion

Data collected through ethnobotanical survey included plant species with their vernacular names, uses and mode of preparation (Table 1). In the present study, 165 plant species belonging to 58 families were reported after undertaking the survey and having discussion with local traditional healers of different age groups. It was found that dominated medicinal plants of this area are major source of primary health care. Traditional healers are using these plants to cure diseases related to stomach pain, fever, jaundice, dysentery, skin diseases, snake bites, wounds, cold & cough diabetes, cancer, asthma and worms. The plant material is employed in the form of decoctions, extracts, pastes, juice & Powder some times in combination with other parts of same or different plants other substances, such as sugar candy, curd, honey, hair oil, milk and turmeric powder, are also used in various preparations.

The 165 plant species are included in 58 families with a highest representative of 20 species from the family Papilionoideae; 11 species from the family Rubiaceae; 9 species are represented from Acanthaceae; 7 species from the family Euphorbiaceae; 6 species from the family Tiliaceae & Moraceae, 5 species each from Verbinaceae, Mimosaceae and Rutaceae; and 4 species from Apocyanaceae, Olaceae, Rhamnaceae, Compositae, Graminae and Sapindaceae; whereas Labiatae, Capparaceae, Sterculiaceae, Vitaceae, Ebenaceae, Asclepiadaceae, Ulmaceae and Liliaceae are represented by 3 species each. The families Violaceae, Olaceae, Hippocrateaceae, Caesalpinioideae, Cucurbitaceae, Aizoceae, Pedaliaceae and Dioscoreaceae have two species each, while the rest of 27 families have one species each. Out of 165 plant species, 42 herbs, 37 trees, 35 shrubs, 17 sub-shrubs, 15 straggler, 9 vine, 4 twiner 2, rhizome 1 climber, and 1 were bulb (Table - 1). During the survey it was also learned that the traditional knowledge regarding ethnomedicine is declining as there is no proper documentation. The knowledge is passed down from generation to generation only by means of verbal communication.

Table 1: Ethnomedicinal plants of Krishnagiri District of Tamilnadu

S. No	Scientific Name	Family	Local name	Habit	Common use
1	<i>Cadaba indica</i> Lam	Capparaceae	Vizhuthi	Sh	Worm infestation, swellings, eczema, and constipation.
2	<i>Capparis stylosa</i> DC	Capparaceae	Athandai	Sh	Nervous tonic.
3	<i>Crataeva religiosa</i> Forster.F.	Capparaceae	Marvilangam	T	It is general uses for tribal community.
4	<i>Maerua arenaria</i> DC	Capparaceae	Mochukkodi	S	Tonic and stimulant.
5	<i>Cleome aspera</i> J.Koeing	Cleomaceae	-----	H	Antidiabetic.
6	<i>Lonidium suffruticosum</i> (L)	Violaceae	Orilaithamarai	H	Nervous tonic.
7	<i>Scolopia crenata</i> (W &A)	Flacourtiaceae	Sekkada	T	Musco-skeletal pain.
8	<i>Polygala erioptera</i> DC	Polygalaceae	Paruppuchedi	H	Energy drink.
9	<i>Polycarpaea corymbosa</i> (L)	Caryophyllaceae	Pallipoondu	H	Jaundice, boils, inflammatory swellings.
10	<i>Portulaca quadrifida</i> L.	Portulacaceae	Sirupasalai	H	Asthma, cough, urinary discharges, inflammations, ulcers.
11	<i>Bergia ammannioides</i> Roxb	Elatinaceae	Nandukolluppuchedi	H	Skin disease.
12	<i>Pavonia odorata</i> Willd	Malvace	Peramuti	S.Sh	Antipyretic, stomachic, refrigerant, dysentery, intestinal haemorrhage.
13	<i>Helicteres isora</i> L.	Sterculiaceae	Valamburi	T	Colic, diarrhea, chronic dysentery, flatulence, improves appetite, stomach affections, diabetes.
14	<i>Melhanian incana</i> Heyne	Sterculiaceae		S.Sh	Cold, fever and cough.

15	<i>Waltheria indica</i> L.	Sterculiaceae	Sengalipoendu	S.Sh	Plant febrifuge, purgative, emollient. Roots chewed to control internal haemorrhages: their decoction used for the same purpose and to induce fecundity in women. Flowers and root bark used against thrush.
16	<i>Corchorus acutangulus</i> Lam	Tiliaceae	Chanchu	S.Sh	Seeds used as stomachic.
17	<i>Corchorus tridens</i> L.	Tiliaceae	Naruvalli	S.Sh	Leaves and fruits used as a tonic.
18	<i>Corchorus trilocularis</i> L.	Tiliaceae	-----	S.Sh	Leaves and fruits used as a tonic.
19	<i>Grewia abutilifolia</i>	Tiliaceae	-----	Sh	General uses.
20	<i>Grewia emarginata</i> W & A	Tiliaceae	Thadachu	S	It is used as antidiuretic.
21	<i>Grewia obtuse</i> Wallich	Tiliaceae	-----	S	Antidiabetic.
22	<i>Hugonia mystax</i> L.	Linaceae	Mothirakkanni	Sh	Inflammatory swellings, anthelmintic, febrifuge, antidote to poisoning.
23	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Nerunjil	H	Roots aperients, stomachic, lithotriptic, diuretic
24	<i>Biophytum Nervifolium</i>	Oxalidaceae	-----	H	It is used as nervous tonic.
25	<i>Aegle marmelos</i> (L.) Corr Serr	Rutaceae	Vilvam	T	Astringent, digestive and stomachic, diarrhea and dysentery.
26	<i>Chloroxylon swietenia</i> DC	Rutaceae	Porasu	T	It is used as a health drink.
27	<i>Feronia elephantum</i> Corr Serr	Rutaceae	Vila	T	Fruits juice used as a health tonic.
28	<i>Glycosmis cochinchinensis</i> auct	Rutaceae	Kula pannai	Sh	Fever and liver complaints, vermifuge. Leaves considered good antidote for eczema and other skin troubles, applied in the form of paste.
29	<i>Limonia alata</i> W & A	Rutaceae	Kurunthumulthazai	Sh	General uses.
30	<i>Balanites roxburghii</i> Planchon	Balanitaceae	Nanjundan	T	External uses only.
31	<i>Ochna squarrosa</i> L	Ochnaceae	Chilanthi	Sh	Skin disease.
32	<i>Olax scandens</i> Roxb	Olacaceae	Kadalranchi	Sh	Bark used in medicinal preparations administered in anaemic condition due to fevers.
33	<i>Ximenia americana</i> L.	Olacaceae	Chiru-illanthai	S	Venereal diseases, jaundice, diarrhea, febrifuge, astringent, sores and laxative.
34	<i>Gymnosporia emarginata</i> (Willd)	Celastraceae	Mulvel	Sh	Externaluses.
35	<i>Hippocratea indica</i> Willd	Hipocrateaceae	Odankodi	S	Paste prepared from the leaves for skin disease.
36	<i>Hippocratea obtusifolia</i> Roxb	Hipocrateaceae	Menthakkodi	S	Used as a juices for reduce the health
37	<i>Ziziphus jujuba</i> (L.)	Rhamnaceae	Ilanthai	T	Cooling, anodyne, tonic, chest troubles. Kernels sedative, used as a soporific and to stop vomiting; also employed as an antidote to aconite –poisoning and abdominal pains. Seeds are given in diarrhoea.
38	<i>Ziziphus oenoplia</i> (L.) Mill	Rhamnaceae	Suraimullu	Sh	Roots used in hyperacidity and <i>Ascaris</i> infection. Fruit preparations used in stomachache.
39	<i>Ziziphus trinervia</i> Roxb	Rhamnaceae	Karukaya	T	Leaves used in cachexia and venereal diseases.
40	<i>Ziziphus xylopyrus</i> (Retz) Willd	Rhamnaceae	Kottaiilanthai	T	Thirst, bronchial asthma, diarrhea, aphrodisiac, emetic, carminative, digestive.
41	<i>Cissus quadrangularis</i> L	Vitaceae	Perandai	Sh	Juice prescribed in scurvy. Powdered root considered specific for fractures.
42	<i>Cissus setosa</i> Wallich	Vitaceae	Kangukelari	C	The paste used for only in bone jointer.
43	<i>Cissus vitiginea</i> L	Vitaceae	Semipirandai	C	Paste of this plant used for bone setters.
44	<i>Allophyllus serratus</i> (Roxb)	Sapindaceae	Siruvalli	Sh	Leaves used for skin disease.
45	<i>Cardiospermum canescens</i> Wall	Sapindaceae	Mudakrttan	C	Whole plant used in rheumatism.
46	<i>Dodonaea viscosa</i> Jacq.	Sapindaceae	Virali	Sh	Leaves used as febrifuge; also in burns, swellings and wounds.
47	<i>Sapindus emarginata</i> Vahl	Sapindaceae	Poovankottai	T	Skin disease
48	<i>Rhus mysorensis</i> Don	Anacardiaceae	Neyyikiluvai	Sh	Skin disease.
49	<i>Abrus precatorius</i> Linn	Papilionoide (Faboideae)	Kundumani	S	Diuretic, tonic, emetic Seeds used in affections of nervous system; seed paste applied locally in sciatica, stiffness of shoulder joints and paralysis.
50	<i>Alysicarpus monilifer</i> (L.) DC	Papilionoide (Faboideae)	Kaasukkodi	H	Paste used as skin problems.
51	<i>Alysicarpus rugosus</i> (Willd) DC	Papilionoide (Faboideae)	-----	H	It is a health drink.
52	<i>Canavalia ensiformis</i> DC	Papilionoide (Faboideae)	Kaattuavarai	S	General uses.
53	<i>Clitoria ternatea</i> L.	Papilionoide	Karkakartan	Tw	Roots cathartic and diuretic.

		(Faboideae)			
54	<i>Crotalaria biflora</i> (L.)	Papilionoide (Faboideae)	-----	H	Seeds have the protein content so it is used as edible one.
55	<i>Crotalaria evolvuloides</i> W & A	Papilionoide (Faboideae)	-----	H	Seeds have the protein content so it is used as edible one
56	<i>Crotalaria mysorensis</i> Roth	Papilionoide (Faboideae)	-----	H	Seeds have the protein content so it is used as edible one
57	<i>Derris scandens</i> (Roxb) Benth	Papilionoide (Faboideae)	Takil	S	Used as a stimulant, antispasmodic and counter irritant.
58	<i>Dolichos falcatus</i> Klein ex Willd	Papilionoide (Faboideae)	Minnikizhangu	Tw	Constipation, ophthalmia and skin diseases. Decoction of seed given in rheumatism.
59	<i>Erythrina variegata</i> L.	Papilionoide (Faboideae)	Kalyana murungai	T	Laxative, diuretic, anthelmintic, galactagogue and emmenagogue, venereal buboes.
60	<i>Indigofera cordifolia</i> Heyne ex Roth	Papilionoide (Faboideae)	-----	H	It is used as edible one.
61	<i>Indigofera linifolia</i> (L.f.) Retz	Papilionoide (Faboideae)	-----	H	Febrile eruptions, also a vermifuge.
62	<i>Phaseolus aconifolius</i>	Papilionoide (Faboideae)	Panipayiru	S.Sh	Seeds used as energy producer.
63	<i>Phaseolus trilobus</i>	Papilionoide (Faboideae)	Naripayiru	S.Sh	Seeds used as energy producer.
64	<i>Rhynchosia rufescens</i> (Willd) DC	Papilionoide (Faboideae)	Malaikollu	C	Seeds used as energy producer.
65	<i>Rothia trifoliata</i> (Pers.) DC	Papilionoide (Faboideae)	-----	H	It is used as external uses.
66	<i>Tephrosia purpurea</i> L.	Papilionoide (Faboideae)	Kollukaivezhai	S.Sh	Tonic, laxative, diuretic and deobstruent, bronchitis, bilious febrile attacks, boils, pimples, bleeding piles, asthma, cough, scabies, itch, eczema and other skin eruptions.
67	<i>Tephrosia tenuis</i> Wallich	Papilionoide (Faboideae)	-----	H	Wound healing.
68	<i>Zornia diphylla</i> (L.) Pers.	Papilionoide (Faboideae)	Porikarappan thazhai	H	Used in dysentery and root given to children as a soporific.
69	<i>Bauhinia racemosa</i> Lam	Caesalpinoideae	Aathithi	T	Astringent, dysentery. Leaves given with onions (<i>Alliumcepa</i>) in diarrhoea and as an anthelmintic. Decoction of leaves in malaria.
70	<i>Pterolobium indicum</i> A.Rich	Caesalpinoideae	Karuindu	S	Cold, cough and fever.
71	<i>Acacia ferruginea</i> DC	Mimosaceae	Parambai	T	Bark, fruits – Giddiness, diarrhoea, dysentery, piles, worm infestation, hemorrhage, cough, dyspnoea, skin diseases.
72	<i>Acacia latronum</i> (L.f.) Willd	Mimosaceae	Kaarodai	Sh	Used as a sore throat and cough.
73	<i>Acacia sundra</i> (Roxb) DC	Mimosaceae	Karangaali	T	Used as a health tonic.
74	<i>Albizia odoratissima</i> (L.f.) Benth	Mimosaceae	Karuvagai	T	Leaves and seeds used in eye troubles. Bark for boils.
75	<i>Dichrostachys cinerea</i> (L.) W & A	Mimosaceae	Vedatalla	Sh	Roots used in rheumatism. Tender shoots bruised and used in ophthalmia.
76	<i>Calycopteris floribunda</i> (Roxb)	Combretaceae	Pillani	S	Anthelmintic, Tooth ache, Ulcer, Leprosy, Malarial fever, Dysentery, Jaundice, Pruritus, Skin diseases.
77	<i>Benincasa cerifera</i> Savi	Cucurbitaceae	Sambal pushani kai	C	Decoction of fruit laxative and styptic, given for respiratory troubles and internal haemorrhages.
78	<i>Citrullus vulgaris</i> Schrader	Cucurbitaceae	Dharbusini	H	Fruit considered cooling, tonic, diuretic. Fruit juice diuretic.
79	<i>Mullugo nudicaulis</i> Lam	Aizoaceae	Parpadagam	H	It is used as a tonic fo cold and cough.
80	<i>Mullugo pentaphylla</i> L.	Aizoaceae	Seerakapoundu	H	Digestion.
81	<i>Adina cordifolia</i> (Roxb) Hook.f.	Rubiaceae	Manjakadambai	T	Febrifuge.
82	<i>Borreria hispida</i> (L.)	Rubiaceae	Natthai choori	H	It is used as a nervous stimulant.
83	<i>Chomelia asiatica</i> (L.) kuntze	Rubiaceae	Thaerani	Sh	It is used for external purpose in skin disease.
84	<i>Coffea wightiana</i> W & A	Rubiaceae	Uppulaathi	S.Sh	Increase the urination.
85	<i>Gummifera lucida</i> Roxb.	Rubiaceae	Kambimaram	T	Nervous tonic
86	<i>Oldenlandia dichotoma</i> (Roth) Hook.f.	Rubiaceae	Impoora chakkalathi	H	It is used for nervous stimulant.
87	<i>Oldenlandia wightii</i> Hook.f	Rubiaceae	-----	H	Cold, cough and fever.
88	<i>Plerionia parviflora</i> (Lam)	Rubiaceae	-----	Sh	Cold, cough and fever.

	Beddome				
89	<i>Randia candollerana</i> W&A	Rubiaceae	Malaimathukarai	T	Cold, cough and fever.
90	<i>Randia dumetorum</i> (Retz)	Rubiaceae	Mathukkarai	Sh	Bark and root powder used for joints pain.
91	<i>Randia malabarica</i> Lam	Rubiaceae	-----	T	Bark and root powder used for joints pain.
92	<i>Adenostemma lavenia</i> (L.) Kuntze	Compositae (Asteraceae)	-----	H	General uses.
93	<i>Ageratum conyzoides</i> L.	Compositae (Asteraceae)	Vaadachedi	H	External purpose only.
94	<i>Glossocardia bosvallea</i> (L.f.)DC	Compositae (Asteraceae)	Mambalanari.	H	Used as a emmenagogue.
95	<i>Vicoa indica</i> (L.) DC	Compositae (Asteraceae)	Mookutipoondu	H	Antifertility activity, scorpion sting, throat disorders.
96	<i>Cephalostigma schimperii</i> Hochst	Campanulaceae	-----	H	Cold
97	<i>Diospyros ebenum</i> j.koenig	Ebenaceae	Solaikarimaram	T	Cold
98	<i>Diospyros Montana</i> Roxb	Ebenaceae	Vakkanathi	T	Diarrhoea, stomatitis, intermittent fever.
99	<i>Maba buxifolia</i> (Rottb)	Ebenaceae	Irumbili	Sh	External uses only
100	<i>Jasminum auriculatum</i> Vahl	Oleaceae	Mullai	Sh	Flowers used in consumption.
101	<i>Jasminum trichotomum</i> Heyne	Oleaceae	Mullai	Sh	Flowers used as scent.
102	<i>Ligustrum walker</i> Decne	Oleaceae	-----	T	General uses.
103	<i>Linociera zeylanica</i> (L.) Gamble	Oleaceae	Kattumanjari	T	External uses only.
104	<i>Carissa spinarum</i> L.	Apocyanaceae	Chirukila	Sh	Roots purgative.
105	<i>Ichnocarpus frutescens</i> (L.) R.Br.	Apocyanaceae	Udargodi	Sh	Demulcent, tonic, diaphoretic, diuretic, fevers, dyspepsia, skin troubles, diabetes and stone in gall bladder.
106	<i>Nerium odorum</i> Sol.	Apocyanaceae	Sevvarali	Sh	Root resolvent and attenuant. Oil from root bark used in skin diseases of scaly nature.
107	<i>Wrightia tinctoria</i> (Roxb) R.Br	Apocyanaceae	Vetpalai	T	Bark and seeds used in flatulence and bilious troubles. Seeds aphrodisiac and anthelmintic. Bark used as an adulterant of Kurchi bark.
108	<i>Caralluma attenuate</i> Wight.	Asclepiadaceae	Kallimulaiyan	H	General uses.
109	<i>Gymnema sylvestre</i> (Retz) R.Br.ex.Schultes.	Asclepiadaceae	Sirukurinjan	S	Leaves used in diabetes since it arrests the sense of taste temporarily. Leaf powder cardiac stimulant and diuretic.
110	<i>Hemidesmus indicus</i> (L.) R.Br.	Asclepiadaceae	Nannari	S	Dried roots demulcent, diaphoretic, diuretic and alternative, used in rheumatism, gravel and other urinary diseases and in skin troubles.
111	<i>Evolvulus alsinoides</i> (L.)	Convolvulaceae	Vishnikiranthi	H	Tonic, febrifuge, vermifuge along with oil used in promoting hair growth.
112	<i>Kigelia pinnata</i> DC.	Bignoniaceae	Yaanaipudukkan	T	Rheumatism, dysentery, venereal diseases, dressing syphilitic sores, purgative.
113	<i>Pedaliium murex</i> L.	Pedaliaceae	Yanainerunjil	H	Mucilaginous infusion demulcent, diuretic and tonic, used in dysuria, gonorrhoea and other urino-genital disorders. Root decoction antibilious. Fruits aphrodisiac, decoction given in incontinence of urine, nocturnal emissions, spermatohhoea and impotence.
114	<i>Sesamum laciniatum</i> Klein ex Willd.	Pedaliaceae	Perau	H	External uses only
115	<i>Andrographis affinis</i> Nees.	Acanthaceae	Keeripirandai	S.Sh	For nervous problem.
116	<i>Barleria buxifolia</i> L.	Acanthaceae	Rosemullipoondu	S.Sh	Leaves and roots used in coughs and inflammations.
117	<i>Barleria nitida</i> Nees	Acanthaceae	Adukkumulli	Sh	General uses.
118	<i>Barleria prionitis</i> L.	Acanthaceae	Semmulli	S.Sh	A paste of roots applied to boils and glandular swellings. Roots febrifuge. Leaves chewed to relieve toothache. Juice of leaves with honey given in catarrhal affections in children.
119	<i>Blepharis boerhaviifolia</i> Pers.	Acanthaceae	Nethirapoondu	H	Seed- Dysuria, diseases of nervous system, diuretic, aphrodisiac.
120	<i>Justicia tranquebariensis</i> L.f.	Acanthaceae	Thavasimurungai	Sh	Juice of leaves acts as a cooling and aperients, given to children in small pox. Bruised leaves applied to contusions.
121	<i>Lepidagathis cristata</i> Willd	Acanthaceae	Karappanpoondu	Sh	Plant used as a tonic in fevers, also applied to itchy affections of the skin.
122	<i>Rhinacanthus communis</i> Nees	Acanthaceae	Nagamalli	S.Sh	Fresh roots and leaves bruised and mixed with lime, used externally in eczema, ringworm and dhobi's itch.

					Roots boiled in milk and used as an aphrodisiac.
123	<i>Ruellia prostrata</i> poiret	Acanthaceae	Uppuladi	H	External uses
124	<i>Gmelina asiatica</i> L	Verbinaceae	Mulkumizh	Sh	Demulcent, astringent, Rheumatism, Catarrh of bladder.
125	<i>Lantana aculeata</i> L.	Verbinaceae	Unnichedi	Sh	Vulnerary, diaphoretic, carminative, antispasmodic, tumours, tetanus, rheumatism, malaria.
126	<i>Lippia nodiflora</i> (L.) A.Rich	Verbinaceae	Poduthalai	H	For removing the dandruff.
127	<i>Symphorema involucratum</i> roxb	Verbinaceae	Vellaimallikodi	S	General uses.
128	<i>Vitex negundo</i> L	Verbinaceae	Nalla nochi	Sh	Tonic, febrifuge, diuretic, rheumatism, dyspepsia, anthelmintic, demulcent, dysentery, piles, tonic, vermifuge, catarrh, headache, rheumatic affections.
129	<i>Anisomeles malabarica</i> (L) R.Br	Labiatae (Lamiaceae)	Aruvaachadachi	S.Sh	Infusion of leaves used in dyspepsia and fever accompanying teething in children. Decoction of the plant or its essential oil used in rheumatism.
130	<i>Ocimum adscendens</i> Willd	Labiatae (Lamiaceae)	Kattuthulasi	S.Sh	Cold, cough and fever.
131	<i>Orthosiphon diffuses</i> Benth.	Labiatae (Lamiaceae)	Elithulasi	S.Sh	The leaf juice is used in diabetes in folk-medicine.
132	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Mookkaratti	H	Roots expectorant, diuretic, laxative, used in asthma, in dropsy associated with chronic Bright's disease.
133	<i>Aerva monsoniae</i> Martius.	Amaranthaceae	Purpannai	H	General uses.
134	<i>Aristolochia indica</i> L.	Aristolochiaceae	Thazhaisurulikodi	Tw	Gastric stimulant and bitter tonic. Aristolochic acid used for stimulating phagocytosis in infectious diseases in combination with antibiotics. Juice of leaves used in cough and seeds in inflammation and biliousness.
135	<i>Cassytha filiformis</i> L.	Lauraceae	Erumaikkottan	Tw	Bilious affections, urethritis, chronic dysentery, eye and skin affections.
136	<i>Santalum album</i> L.	Santalaceae	Santhanum	T	Diuretic, diaphoretic, refrigerant and expectorant.
137	<i>Breynia rhamnoides</i> (Retz) Muell. Arg	Euphorbiaceae	Manipullathi	Sh	Leaves applied as a poultice to hasten suppuration. Leaf juice given after parturition to prevent haemorrhage.
138	<i>Cleistanthus collinus</i> (Roxb) Benth.	Euphorbiaceae	Oduvan	Sh	Gastrointestinal irritant. Abortifacient.
139	<i>Euphorbia antiqorum</i> L.	Euphorbiaceae	Sathurakkalli	Sh	Purgative, digestive, gout. Latex used to kill maggots.
140	<i>Euphorbia nivulia</i> Buch-Ham.	Euphorbiaceae	Elaikalli	T	Purgative, diuretic, dropsy.
141	<i>Fluggea leucopyrus</i> Willd	Euphorbiaceae	Vellaipoolaa	Sh	External uses only.
142	<i>Glochidion ellipticum</i> Wight	Euphorbiaceae	Thinakkolli	T	External uses only.
143	<i>Phyllanthus polyphyllus</i> willd	Euphorbiaceae	Sirunelli	T	For making pickles.
144	<i>Celtis wightii</i> planchon	Ulmaceae	Elumbirutti	T	Used in nervous disorders.
145	<i>Holoptela integrifolia</i> (Roxb) planchon	Ulmaceae	Aavimaram	T	Seeds contain yellow fatty oil.
146	<i>Trema orientalis</i> (L.) Blume	Ulmaceae	Ambaratthi	T	Diarrhea and epilepsy.
147	<i>Artocarpus integrifolius</i> L.f.	Moraceae	Pala	T	Liver disorders, indigestion, cough and wheezing.
148	<i>Ficus glomerata</i> Roxb.	Moraceae	Vellai atthi	T	Diarrhoea, diabetes, bilious affection, piles and diarrhoea.
149	<i>Ficus infectoria</i> Roxb.	Moraceae	Ichchimaram	T	Adventitious roots fried and powdered, mixed with salt applied to decayed or aching tooth. Bark used in liver diseases.
150	<i>Ficus retusa</i> L. var. nitida Thumb.	Moraceae	Kalichchi	T	General uses.
151	<i>Phyllichlamys spinosa</i> (Roxb) Bureau	Moraceae	Kattaari	Sh	External uses only.
152	<i>Plecosperrum spinosum</i> Trecul	Moraceae	Kattaanimullu	S	General uses.
153	<i>Vanda tessellate</i> (Roxb) Hook.	Orchidaceae	Kandha naguli	Vine	Dyspepsia, bronchitis, rheumatism and fevers.
154	<i>Curcuma longa</i> L.	Zingiberaceae	Manjal	Rh	Used as a stimulant, tonic, stomachic and depurative.
155	<i>Sansevieria roxburghiana</i> Schultes & Schultes	Agavaceae	Marul	H	Cough, cleaning the phlegm from the throat.
156	<i>Dioscorea oppositifolia</i> L.	Dioscoreaceae	Verrolaivalli	Vine	Tubers ground and applied to swellings.
157	<i>Diocorea pentaphylla</i> L.	Dioscoreaceae	Vellaikkodi	Vine	Tubers used as tonic and in swellings.
158	<i>Asparagus racemosus</i> Willd.	Liliaceae	Thanneervittan Kizhangu	Vine	Roots used in nervous and rheumatic complaints.
159	<i>Gloriosa superba</i> L.	Liliaceae	Kanvalkilangu	Cl	Tonic, stomachic and anthelmintic, abortifacient, neuralgic pains and skin troubles.
160	<i>Scilla india</i> (Wight) Baker.	Liliaceae	Narivengayam	Bulb.	Expectorant, cardiac stimulant and diuretic.
161	<i>Andropogon pumilus</i> Roxb.	Graminae	Kavattampillu	H	For nervous disorder.

		(Poaceae)			
162	<i>Apluda aristata</i> L.	Graminae (Poaceae)	Moongilpul	H	For nervous disorder.
163	<i>Aristida hystrix</i> L.f.	Graminae (Poaceae)	Oogam	H	General uses.
164	<i>Cymbopogon martini</i> Watson	Graminae (Poaceae)	Cooraipul	Rh	Oil used in lumbago and in stiff joints. Source of palmarosa oil known as Rusa oil.
165	<i>Cycas circinalis</i> L.	Cycadaceae	Kattu Manoranjitham	T	Juice of tender leaves given in flatulence.

4. Conclusion

The present study provides ethnobotanical documentation and analysis on the medicinal plants used by the traditional healers of rural area of krishnagiri district to cure different diseases. Although the results of the study encourage practical use of medicinal plants, investigations are required on the pharmacological efficacy of various ethnomedicines used by them. The medicated claims incorporated in the study need to be evaluated through phytochemical and pharmacological investigations to discover their potentiality as natural drugs.

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