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ETHNOBOTANICAL KNOWLEDGE ON SINGLE DRUG REMEDIES FROM IDUKKI DISTRICT, KERALA FOR THE TREATMENT OF SOME CHRONIC DISEASES

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ABSTRACT

A detailed ethnobotanical study was conducted among the Uraly tribes in Idukki district, who live in the western ghat mountainous region. Various techniques like interviews and quadrate studies were employed to gather the information on the single drug remedies used for the treatment of chronic diseases. A total of 14 species from 13 different families were documented to be used for chronic diseases like bronchial asthma, rheumatism, allergic asthma, dermatitis, psoriasis, insomnia and mental illness. Different plant species were recorded to be used for the treatment of Bronchial Asthma.

KEY WORDS: Ethnobotany, Ethnomedicine, Uraly, Medicinal Plants and Idukki.

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INTRODUCTION

Tribal people in any part of the world, who live in close association with the forests, are rich in the traditional knowledge of plants. They use the plants in a sustainable manner for various day to day needs. The use of plants for the health care and the treatment of various illnesses are also noticed among all the tribal communities.

Idukki is the second largest district in the state with an area of 5105.22 sq.kms. The district comprises of four taluks, Peermade, Udumbanchola, Devikulam and Thodupuzha. Idukki, which forms 13% of the geographical area of the state, is one of the most backward districts of the state. It lies between 9°15' and 10°21' of the north latitude and 76°37' and 77°35' of east longitude. Rugged mountains and forests cover about 97 percent of the total area of the district. The different levels of elevation promote the growth of diverse flora. The district has at present about 2, 60, 907 ha. forest area which is more than 50% of the total area of the district. Idukki is the second largest tribal inhabited district in the state, next to Wayanad. There are 245 tribal settlements in the district of which 74 are in Thodupuzha; 11 in Peermade; 126 in Devikulam and 34 in Udumbanchola taluks.

Almost all the scheduled tribes are living in the remote hilly banks and in the deep interiors of forests of the district. Mannans, Mala Arayans, Urali, Muthuvans, Malapulaya, Paliyan and Ulladan are the different groups of tribals in the district. Uralies are one of the major tribal communities in Idukki District, and Kannampady tribal settlement is primarily inhabited by Uralies. Kannampady tribal settlement is situated in the Upputhara Panchayat of Peermade Taluk in Idukki District and lies approximately between 9°45' and 9°55' North latitude and between 77°00' and 77°10' East longitude at an altitude of 2500 and 3200 feet. The entire Kannampady tribal settlement is located around Idukki reservoir in the reserve forest.

The use of medicinal plants by the indigenous and tribal people is well known and widely documented from different tribal occupied regions in different parts of the world. Chronic diseases, which are usually treated by modern systems of medicines are also reported to be effectively treated by traditional medicines[1,2]. Singh *et al*.[3] report as many as 125 plant species, belonging to 57 families, were found to be used by the tribals of Sonaghati of Sonbhadra district, Uttar Pradesh, India for medicinal purposes. Silja *et al*.[4] have reported the use of 136 plant species for traditional medicinal purpose by the tribes in Kerala. The use of single plant part as a drug for the treatment of a disease, which is known as single drug remedy is also very common among the tribal *vaidyas*.

Different single drug remedies were reported and documented from different tribal groups in Kerala [5-8]. Uralies live in close association with forests and they have rich knowledge about the flora in and around their habitat. This study is aimed at documenting their knowledge in the use of single drug remedies for some chronic ailments.

MATERIALS AND METHODS

All the primary data including the ethnographical details, ethnobotanical details, health and nutritional status and the educational status were collected directly from the respondents. For the data collection and analysis, the methods described by Martin[9], Alexiades[10], Jain[11] and Cunningham[12] were used. Unstructured interview, quadrate studies and ethnobotanical inventory are the major techniques employed to gather the data. Field interviews were conducted with the *Vaidyas* and voucher specimens were created in the field itself in the presence of the respondents.

RESULTS AND DISCUSSION

A total of 26 species from 24 families are used by the *Uraly vaidyas* for the treatment of various chronic diseases. Bronchial Asthma is found to be the major chronic disease in the area and as many as 8 different single plant species are used for the control of Bronchial Asthma. There are *Vaidyas* in the settlement treating for some other chronic diseases like Allergic Asthma, Rheumatism, Insomnia, Psoriasis, Dermatitis mental illness and some serious medical conditions like snake poisoning and delayed delivery. The administration of different plant parts is given in **Table 1**.

The wealth of knowledge of the tribal people about the flora around them and the usage of medicinal plants for primary health care is diminishing over the period. Efforts should be taken to conserve the knowledge wealth and the usage of medicinal plants should be promoted in the rural areas. The *Vaidyas,* who are the repository of knowledge on medicinal plants, should also be duly recognised by the authorities to create interest on medicinal plants among the younger generation.

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Table 1: Ethnomedicinal plants used for chronic diseases by Uraly tribes of Idukki District, Kerala, India

S. No	Botanical Name	Family	Part/s used	Disease and Administration of the medicine
1.	*Adhatoda vasica* NEES	Acanthaceae	Leaf	Consume 5-10ml of the leaf juice thrice a day against Bronchial Asthma.
2.	*Azadirachta indica* A Juss.	Meliaceae	Leaf	Eat seven leaves orally for three days after preliminary treatment is taken as the secondary treatment for Jaundice.
3.	*Azadirachta indica* A Juss.	Meliaceae	Bark	Grind the bark with sufficient water. Add 100 ml of this liquid in 100 ml of filtered butter milk and consume to control Excessive menstrual bleeding.
4.	*Caesalpinia bonduc* (L.) Roxb.	Fabaceae	Seed	Coat the seed fully with soil and burn the soil till the soil turns brick red. Break the seed shell and make the pulp into paste. Mix one third of this paste with 60 ml of water and consume three times a day for Abdominal Distension.
5.	*Careya arborea* Roxb.	Lycythidaceae	Flower	Make the flower into paste, mix with honey and consume 5gm twice a day time for Bronchial Asthma.
6.	*Carica papaya* L.	Caricaceae	Root	Boil 10cm long root of male plant in one liter of water and make decoction. Mix with one spoon of charred elephant dung and consume three times a day to induce Abortion.
7.	*Cassia occidentalis* L.	Caesalpiniaceae	Whole Plant	Consume 60ml of the decoction of the plant, thrice a day against Bronchial Asthma.
8.	*Cyathula prostrata* (L.) Blume	Amaranthaceae	Whole plant	Make it into paste and apply on the stomach when delivery is delayed.
			Leaf	Consume 30 ml of the leaf juice in the morning time for Bronchial Asthma.
9.	*Datura metel* L.	Solanaceae	Leaf and Fruit	Make the juice of the leaves and paste of the fruit. Mix with gingili oil and consume 6 drops at bed time for Bronchial Asthma.
			Root	Consume 5- 10gm of root paste in cow's milk against Mental illness.
10.	*Elephantopus scaber* L.	Asteraceae	Leaf	Make juice of the leaves and consume with tender coconut time for Bronchial Asthma.
11.	*Gymnema sylvestre* R. Br.	Asclepiadaceae	Leaf	Consume 5gm of dried leaf in 50ml cow's milk twice a day for Diabetes.
12.	*Hibiscus rosa-sinensis* L.	Malvaceae	Root, Leaf, Stem, Bark, Bud	Boil equal quantity of crushed Root, Leaf, Stem, Bark and Bud in $1^1/_2$ glass of water. Make it into a decoction of half a glass. Consume half spoon of decoction with small quantity of jaggery thrice daily to control Dermatitis.
13.	*Mimosa pudica* L.	Mimosaceae	Whole Plant	Grind the plant into paste and consume 5-10gm in goat's milk early in the morning against Bronchial Asthma.
14.	*Naravelia zeylanica* (L) DC.	Ranunculaceae	Leaf	Boil sufficient quantity of leaves in water and use the water for bathing as the treatment for Rheumatism.
15.	*Ocimum basilicum* L.	Lamiaceae	Leaf	Heat the leaves in coconut oil and apply the oil as ear drops against Otorrhoea.
16.	*Phyllanthus amarus* Schum. & Thenn.	Phyllanthaceae	Whole plant	Put the plant in coconut oil and heat it for some time. Apply the medicated oil on the head against Insomnia.
17.	*Polygonum chinense* L.	Polygonaceae	Root	Chew the roots and swallow the juice thrice a day to control Diorrhoea.
18.	*Polygala chinensis* L.	Polygalaceae	Root	For Snake bite, Chew the roots and swallow the juice to prevent upward movement of venom. It is believed that the reciting of particular 'Mantras' is mandatory for the effectiveness of the treatment.
19.	*Ricinus communis* L.	Euphorbiaceae	Leaf	Make a paste of tender leaves and consume 5gm in 30ml of cow's milk thrice a day against Jaundice.

20.	*Rubia cordifolia* L.	Rubiaceae	Root	Grind the roots and massage the paste on the stomach from top to bottom when delivery is delayed than the expected date.
21.	*Ruta graveolens* L.	Rutaceae	Leaf	Mix 15ml of the leaf juice with 10ml of Alcohol and consume once in a day for 7 days time for Bronchial Asthma.
22.	*Strychnos nux-vomica* L.	Leguminaceae	Root	Grind the roots and apply the paste on the bitten area as the treatment against Poisoning by centipedes, lizard and scorpion.
23.	*Thottea siliquosa* Lamk.	Aristolochiaceae	Root	Grind the roots into paste and apply on the bitten area immediately, which would prevent the spread of the venom from Snake bite.
24.	*Tinospora cordifolia* (Wild).	Menispermiaceae	Shoot	Grind the shoot part into paste and apply on the forehead in the size of one rupee coin if somebody suddenly faints.
25.	*Tylophora indica* (Burm.F.) Merrill.	Asclepiadaceae	Leaf	Make a paste of seven leaves and consume in goat's milk early in the morning for Allergic Asthma.
26.	*Wrightia tinctoria* L.	Apocynaceae	Leaves	Take 250 g of leaves of *Wrightia tinctoria* and immerse it in 500 ml of coconut oil in a bronze vessel. Keep the vessel under open sunlight for 7 days. The squeeze the leaves and apply the oil on the affected part to control Psoriasis.

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