

## **Archiving ethnomedicinal knowledge and local health care systems from local health healers in Trivandram district of Kerala state, India**

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### **ABSTRACT**

An ethnobotanical survey was undertaken to collect information from traditional healers on the use of medicinal plants in Trivandram district of Kerala state, India. The indigenous knowledge of local traditional healers and the native plants used for medicinal purposes were collected through personal interview. The investigation revealed that, the traditional healers used 34 species of plants belonging to 21 families to treat various diseases. The documented medicinal plants were mostly used to cure psoriasis, poison bites, stomachache, jaundice, dandruff, arthritis, blood pressure, blood purification, daeniasis, ear infection, male sterility, kidney stones, eye problem, leucorrhea, rejuvenation, scabies, piles and body massages. In this study the most dominant family was zingiberaceae and fruit, leaves and tubers of the plants were most frequently used for the treatment of diseases. The particulars of medicinal plant parts used, mode of preparation and administration are given. The plant medicines were arranged alphabetically in order of their botanical name, family, malayalam name, parts used, preparation of medicines, dosage and mode of administration, and ailments.

**Key Words :** Archiving ethno medicinal, Indigenous knowledge, Traditional healers, Practices, Mode of preparation, Mode of administration

### **INTRODUCTION**

India has a glorious tradition of the arts and science of healing. The origin of Indian medicine is shrouded in 'myths' and 'inspired history'. But, organised medicine, Ayurveda emerged from folk medicine at least 2,000 yrs ago with its well developed recorded system and practices. The maximum numbers of medicinal plants are used by folk (tribal) traditions. The booming global market for herbal drugs, pushed more than 100 medicinal plant species in Kerala to the verge of extinction. India, having

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two out of the 34 biodiversity hotspots of the world, is perhaps the largest producer of medicinal plants in the world. Of the 43000 plant species recorded in India, 3000 are known to possess medicinal properties. The vast resource of medicinal plants has been widely used in various traditional systems of medicine like Ayurveda, Siddha, Unani and Amchi. In Kerala more than 900 medicinal plants are used in both classical and oral health tradition including tribal medicines. Out of these 200 medicinal plants are largely extracted for the preparation of diverse medicinal and food products. It is necessary to document local indigenous knowledge on the use of plants for health care.

## METHODOLOGY

### Description of the study area :

Thiruvananthapuram District is the southernmost district of the Indian state of Kerala. The headquarters is in the city of Thiruvananthapuram(Trivandrum) which is also the capital city of Kerala. The district has an area of 2192 km<sup>2</sup>, the second largest in Kerala. It is divided into four talukas: Thiruvananthapuram, Chirayinkil, Nedumangad, and Neyyattinkara. The urban bodies in the district are the Thiruvananthapuram Corporation, Attingal, Neyyattinkara, Varkala and Nedumangad municipalities. Thiruvananthapuram literally means City of Lord Anantha. The district is situated between North latitudes at 8.17° and 8.54° and East longitudes 76.41° and 77.17°. The southern most extremity, Parassala is just 54 km away from the Southern Peninsular tip of India, Cape Comorin(Kanya Kumari). The district stretches 78 km along the shores of the Arabian Sea on the West, Kollam district lies on the North with Tirunelveli and Kanyakumari districts of Tamil Nadu on the East and South, respectively.

### Details of ethnomedicinal survey:

The study areas are selected for well known for traditional knowledge of medicinal plants at Trivandram district of Kerala state. Field trips were conducted in five villages namely Alankodu, Pallimukku, Attingal, Neyyattinkara and Mangalapuram of Trivandram district during 2006-07, covering all seasons. The information on ethnomedicinal plants and practices were collected by standard procedures (Jain, 1995 and Jain and Mudgal, 1999) by interacting with ten traditional vaithiyars or herbal practitioners and elders of the village those who have the knowledge of herbal medicines. The collected information was cross checked by used survey form. Plant specimens like fresh, dried and medicines such as powder, extract, thailam, paste, kasayam, oil and drops were collected and documented during the survey and herbarium specimens were prepared and identified with the help of the Rabinet Herbarium and Centre for molecular systematics, Trichy, Tamilnadu, and local floras (Pulliah and Silar, 1999; Gamble and Fischer, 1997 and Khan, 1953). Dried herbals/medicinal plants were collected and preserved in a pet jars for specimens. The 34 plant species belonging to 21 families used in primary health care are detailed below.

## RESULTS AND DISCUSSION

The plant medicines collected were arranged alphabetically in the order of their botanical names, family, vernacular/local names, part used, ailments, preparation of medicines, dosage and mode of administration concerned below.

The present paper provides information about 34 plant species belonging to 21 different families used as herbal remedies in local health care practices by the surrounding villages of Trivandram district, Kerala, India. Different parts of medicinal plants were used as medicine by the local traditional healers. Among the different plant parts, the leaves, fruit and tuber were most frequently used for the treatment of diseases followed by whole plant parts, fruit, stem, root, seed and flower. The methods of preparation fall into nine categories, viz.: plant parts applied as a powder (7), extract (3),

Botanical Name and Family	Malayalam name	Tamil name	Preparation of medicines :	Uses and mode of administration	Allopathy ailments
<i>Oraniam basilifera</i> Linn. (Anubataceae)	Thirunavathi paratha	Thirunavathi parathai	Fifty grams of fresh leaves were washed with water and crushed with five gram of <i>Carum zanthoxyllum</i> and two gram of <i>Carum zanthoxyllum</i> powder by using stone mortar.	The jaundice drop is used only for external application. The patient was asked to lay down in the bed. Crushed ingredients were tied in the white cloth and sprinkled 2 to 3 drops in the both the eyes at morning, 7-8 am and evening, 4-5 pm for three days. After adding drops to the eyes the patients were advised not to take bath or wash the eyes for three days. After three days, the patients were asked to take oil bath for five days within 10 days.	Jaundice
<i>Carum zanthoxyllum</i> (Anubataceae)	Jeevalkari	Seethai	This crushed medicines were tied in a white cloth and kept in a porcel vessel.		
<i>Carum zanthoxyllum</i> (Anubataceae)	Mangal	Thirai	This medicine is prepared freshly and used for the treatment of jaundice		
<i>Lippia nodiflora</i> (Verbenaceae)	...	Puduchalai	Hundred gm of <i>Lippia nodiflora</i> leaves were washed with water.	Ten ml of Lippia nodiflora thailan was advised to apply on the scalp thoroughly before 2 hours of bathing at morning for seven days continuously. This oil can be used for both sexes and it can also be applied at the convenient time of the patient.	Headache
<i>Cassia nana</i> (Fabaceae)	Thendai	Extruded oil (caranai oil)	This cleaned and washed plants were ground by using stone mortar for extracting the extract.		
<i>Cassia nana</i> (Fabaceae)	...	Extruded oil (caranai oil)	This extract was added in 100 ml of heated oil at thickness to 10 ml and filtered.		
<i>Cassia nana</i> (Fabaceae)	Valachytha	Matured leaves	The filtered thailan was filled in a glass bottle for future use.		
<i>Cassia nana</i> (Fabaceae)	Valachytha	Matured leaves	Fifty grams of <i>Cassia nana</i> leaves were washed and crushed by hand pounding using stone mortar for extracting the juice.	The extract was applied on the affected areas (external application) and hot water bath has to taken after 12 hours of application of the extract at convenient time of the patients.	Arthritis

Table 1. contd.....





Plant Name	Part Used	Preparation	Indication
<i>Parthenium hysterophorus</i> (Asteraceae)	Flower, leaves and fruits	<p>1. Ten grams of powder extracted with tender coconut water or milk or butler milk at morning, and evening, before meals for seven days or it will not cured eruptions again seven days.</p> <p>2. The dried samples were grained into powder by using mixer and sieved in the fine powder and was packed in glass bottles for future use.</p>	Diabetes
<i>Vanilla planifolia</i> (orchidaceae)	Fruit	<p>1. Fresh 50 mg or required quantities of <i>vanilla planifolia</i> andrews fruits were collected and heated in required quantity of water at 65 °C for five minutes.</p> <p>2. After boiling, the water is discarded and the heated <i>vanilla planifolia</i> andrews fruit was packed in washed cloth.</p> <p>3. The heated <i>vanilla planifolia</i> andrews was kept in a thermos eble box or wooden box for 12 hours at room temperature for moisture retention and also stiffening of the fruits.</p> <p>4. The dried <i>vanilla planifolia</i> andrews fruit is extracted by using hydraulic expeller for extracting the vanilla juice or extract and it was stored for future use.</p>	Psoriasis
<i>Alpinia officinarum</i> (Zingiberaceae)	Root	<p>1. The root extract is mixed with required quantity of milk and filled in a glass bottle for storing and also using for body massaging.</p> <p>2. Two gram of dried root, namuci and padhinnyam were put into the two litre of hot water and filtered by using muslin cloth or filter. The filtered water was evaporated for few minutes or down the temperature, which is used for drinking to reduce body heat and also purifying the blood.</p>	Body massage
<i>Calceas vestiveroides</i> (Araliacae)	Root	<p>1. The root extract is mixed with required quantity of milk and filled in a glass bottle for storing and also using for body massaging.</p> <p>2. Two gram of dried root, namuci and padhinnyam were put into the two litre of hot water and filtered by using muslin cloth or filter. The filtered water was evaporated for few minutes or down the temperature, which is used for drinking to reduce body heat and also purifying the blood.</p>	Body massage
<i>Hemidermis fruticosa</i> (Asclepiadaceae)	Root	<p>1. The root extract is mixed with required quantity of milk and filled in a glass bottle for storing and also using for body massaging.</p> <p>2. Two gram of dried root, namuci and padhinnyam were put into the two litre of hot water and filtered by using muslin cloth or filter. The filtered water was evaporated for few minutes or down the temperature, which is used for drinking to reduce body heat and also purifying the blood.</p>	Body massage

Plant Name	Local Name	Part Used	Preparation/Use	Indication
<i>Caralliscarpus epigiæus</i> (Carabidaceae)	Alakshatkamulani	Timber	Fresh <i>Caralliscarpus epigiæus</i> (rubber) was washed and dried in shade for four days for removing the moisture content. The shade dried <i>Caralliscarpus epigiæus</i> root was cut into small size (1") and ground into powder by using a mortar and pestle. The powder was used for the treatment of scabies.	Scabies
<i>Cissus quadrangularis</i> (Tournefortiaceae)	Kuthu, potamaladi	Fruit	Fifty gram of <i>Cissus quadrangularis</i> is washed with water.	Diarrhoea, hoarse
<i>Tamarindus indica</i> (Caesalpiniaceae)	Pubi	Fruit	The washed <i>Cissus quadrangularis</i> was mixed with 50 gm of tamarind and one number of dried chillies in the vessel without mixing of oil for 1 to 2 minutes.	
<i>Calotropis stracheyana</i> (Solanaceae)	Milayyâ	Fruit	The mixed ingredients were mixed with required amount of salt for paste form.	
<i>Tagarbitia hirta</i> (Diphtheriaceae)	Auram, pashchaisi or Pataladi	Whole plant	The prepared paste will be packed in the glass bottle for the treatment of jaundice problem.	
<i>Tagarbitia hirta</i> (Diphtheriaceae)	Cheruchussan, Nilapala	Whole plant	Fifty gram of fresh leaves are washed with water and dried in shade for one week for removing the water for one week.	Stomach pain
<i>Caralligo arachoides</i> (Caesalpinaceae)	Nilapamati	Timber	The dried <i>Tagarbitia hirta</i> leaves were ground by using mixer. The <i>Tagarbitia hirta</i> leaves powder will be stored in the glass bottles for further treatment.	
<i>Caralligo arachoides</i> (Caesalpinaceae)	Nilapamati	Timber	<i>Caralligo arachoides</i> (rubber) are washed with water and cut into small pieces and dried for 3 days in shade.	Respiratory
	Pasayangam birani	Mature leaves	The dried <i>Caralligo arachoides</i> Caesalpin was ground into powder by using stone mortar to make a powder. Two hundred gram of bhesagani leaves were dried in shade for one week. Dried leaves was ground with one gram of banana fruit to make a powder.	Leucoderma (white discharge)

kasayam (3), thailam (2), drops (1), oil (1) and paste (1). External applications (mostly for skin diseases and wounds) and internal consumption of the preparations were involved in the treatment of diseases. Traditional healers are using these plants to cure diseases related psoriasis, poison bites, stomachache, jaundice, dandruff, arthritis, blood pressure, blood purification, daeniasis, ear infection, male sterility, kidney stones, eye problem, leucorrhea, rejuvenation, scabies, piles and body massages.<sup>6</sup> In this study the most dominant family was zingiberaceae and fruit, leaves and tubers were most frequently used for the treatment of diseases. The plant medicines were arranged alphabetically in order of their botanical name, family, malayalam name, parts used, preparation of medicines, dosage and mode of administration, and ailments (Table 1).

### **Conclusion:**

The survey indicated that, the study area has plenty of medicinal plants to treat a wide spectrum of human ailments. It is evident from the interviews conducted in different villages. The scientific knowledge of medicinal plants is limited to the traditional healers, herbalists and elderly persons who are living in rural areas. This study also points out that certain species of medicinal plants are being exploited by the local residents who are unaware of the importance of medicinal plants in the ecosystem. Due to lack of interest among the younger generation as well as their tendency to migrate to cities for lucrative jobs, there is a possibility of losing this wealth of knowledge in the near future. It thus becomes necessary to acquire and preserve this traditional system of medicine by proper documentation and identification of specimens.

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