



## Ethnobotanical Study of Traditional Medicinal Plants Used by Indigenous People in North Kerala

### KEYWORDS

Medicinal plants, Ethnobotany, Kerala, Tribals, Indigenous knowhow.

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### ABSTRACT

*The desire for the wisdom of traditional healing systems has led to a revivification of interest in herbal medicines across the world. The infiltration of modern systems of medicine coincident with globalization leads to shrinkage of indigenous treatment systems which are a barrier to drug development. Thus an attempt was done to document the indigenous informations in selected tribal groups in Wayanad, Malappuram and Kasargod districts. A total of 15 plants comprising 15 families were documented in the present study which is commonly used by Paniyaas and Malavettuvass - the indigenous people in the area. The present study gathered crucial informations about traditional knowhow and exemplifies the need to document, research and development of new drugs to combat emerging diseases.*

### INTRODUCTION

Ethnobotany is the systematic study of the inter-relationship between people and plants. Lion part of the world's population in developing countries still rely plants for their primary healthcare systems to treat various ailments (Albuquerque et al., 2012). The research attributes of ethnomedicine are staggering, as it is a complex multi-disciplinary system in healing for people for millennia (Abbasi et al., 2010). The last few decades have witnessed an explosion in finding healing powers from plants. The emergence of drug resistance pathogens and toxic side effects of currently using medicines paves the way for developing new treatment testimonials from plant sources. The treatment system followed by the indigenous people is considered as the cornerstone of drug development programmes.

Kerala, the epitome of biodiversity is well known for its traditional systems of medicine. The indigenous people in Kerala are famous for their autochthonous treatment modalities with plant based formulations. However, there exists a lacuna of knowledge in the documentation of ethnobotanical knowledge in the northern region of the state of Kerala. It is very urgent as ethnobotanical knowledge is restricted to the elder people and the younger generation was totally unaware. The present study is an attempt in this line to document the existing bits of traditional knowledge among the tribal people in Kasargod, Malappuram and Wayanad Districts.

### MATERIALS AND METHODS

The ethnobotanical information on medicinal plants was collected during the period of November – December 2014 and August 2015 through structured interviews with key informants, free lists, field notes, and guided tours. The information collected includes local name of the medicinal plant, type, diseases treated, parts used, method of preparation, route of administration and ingredients added.

### RESULTS

A total of 15 plants comprising 15 families were documented in the present study which is commonly used by the indigenous people in Kasargod, Malappuram and Way-

anad districts, in Kerala. Paniyaas and Malavettuvass are the tribal people involved in the present study. Depending on the severity and site of infection/disease, the tribal people use different plant parts and also combinations to cure various ailments. The obtained results are given in Table 1.

### DISCUSSION

The knowledge of medicinal plants in traditional communities is time tested and is the foundation of new drug inventoryings globally (Leonti et al., 2003). Approach to modern systems of medicine by the local population does not extinguish the use of prevailing local medicinal practices, which is often included in curatives of the communities. However, the infiltration of modern systems of medicine into the indigenous diaspora, curtailed the very existence of indigenous knowhow which have multifaceted reverberations in new drug development and documentation.

The present study adumbrates comprehensive information on the indigenous uses and traditional practices of the plants used by the indigenous people in the study area. In the present study, a total of 15 plants coming under 15 families were documented which is commonly used by the indigenous people (Paniyaas and Malavettuvass) in Kasargod, Malappuram and Wayanad districts, in Kerala. The obtained results are in agreement with available reports (Silja et al., 2008; Divakar et al., 2010). Plant-based treatment systems are still the mainstay of primary health care to vast majority of population and it was well established that approximately 2500 plant species have medicinal value while over 6000 plants are reckoned to be spotted in traditional, folk and herbal medicinal uses (Choudhary et al., 2008).

The people in the study area are using herbal remedies for cough, stomach problems, kidney troubles, dysentery, wound healing during child birth, burns, snake bites, psoriasis and ear infections. This is in accordance with the earlier explorations with regard to ethnobotanical studies (Dutta and Dutta, 2005; Mahmood, et al., 2011).

It should be noted that the knowhow of traditional systems of medicine are strictly confined to the aged people only.

Unfortunately, even the young generation in the indigenous community itself is totally unaware of the traditional systems of treatment. Thus, it is the need of the hour to document all the indigenous knowhow for future use and research outcomes.

### CONCLUSION

Cheap and economic primary health care are primary

needs of rural people and investigations concentrating on indigenous knowhow is now well appreciated. Ethnomedicinal studies provide deeper insight into the indigenous method of applications and potency of plant derivatives in treating various ailments. The present study encompasses the critical need of such studies for new drug development and allied applications.

Table 1.

SL. No.	SCIENTIFIC NAME	FAMILY	LOCAL NAME	TRIBE	USE	PLANT PART USED	MODE OF USE	PLACE	DIS-TRICT
1	Leucas zeylanica	Lamiaceae	Thumba	Paniayas	Cough, Insect repellent  Stomach problems	Whole  Whole	Plant juice used internally  Plant juice used as nasal drop	Panamaram	Wayanad
2	Artemisia vulgaris	Asteraceae	Mugwort, St. John's plant	Paniayas	Stomach problems	Whole	Plant juice used internally	Panamaram	Wayanad
3	Scoparia dulcis	Scrophulariaceae	Kallurukki	Malavettuavas	Kidney stones	Root	Roots boiled with water and this water used internally.	Balal	Kasargod
4	Bambusa vulgaris	Poaceae	Mangamula	Malavettuavas	Dysentery	Apical bud	Apical buds are boiled in water and used internally	Balal	Kasargod
5	Piper nigrum	Piperaceae	Kurumulaku	Malavettuavas	Indigestion	Seed	Seeds are powdered and mixed with rock sugar(kalkandam) and used internally	Balal	Kasargod
6	Phyllanthus emblica	Phyllanthaceae	Nelli	Malavettuavas	To heal wounds due to child birth  Burns	Bark  Bark	The bark is squeezed into juice and mixed with boiled rice and used internally  The bark is dried and powdered, boiled with coconut oil and applied externally.	Balal	Kasargod
7	Boerhavia diffusa	Nyctaginaceae	Thazhuthama	Malavettuavas	Easy child birth	Leaf and Stem	Mixed with Tribulus terrestris, boiled in water and used internally.	Balal	Kasargod
8	Aristolochia indica	Aristolochiaceae	Eswaramooli(Garudakodi, Urut hooki)	Malavettuavas	Spider bite	Whole	Mixed with turmeric, make into a paste and used internally and externally.	Konnakadu	Kasargod
9	Rauvolfia serpentina	Apocynaceae	Sarpagandhi (Amalpori)	Malavettuavas	Poisoning due to Snake bite  Psoarisis	Tuber  Whole	Tubers of Rauvolfia serpentina and Aristolochia indica are made into paste and used internally and externally.  Dried  Rauvolfia serpentina, Pepper seeds and Aristolochia indica are boiled in coconut oil and applied to the skin.	Konnakadu	Kasargod
10	Cajanus cajan	Fabaceae	Thomara	Malavettuavas	Ear pain	Leaf	Leaf is squeezed into juice and drop it into ear.	Konnakadu	Kasargod

11	Momordica dioica	Cucurbitaceae	Kattupaval	Malavettuavas	Ear pain Diabetics	Seed Seed	Seeds are dried and powdered and boiled in coconut oil and drop it into ear. Dried seed is powdered and used internally	Konnakadu	Kasargod
12	Justicia gendarussa	Acanthaceae	Vathamkolli	Malavettuavas	Rheumatism	Whole	Boil the plant in water and this water is used for bathing	Konnakadu	Kasargod
13	Asparagus racemosus	Asparagaceae	Sathavari	Malavettuavas	Back pain	Tuber	The tuber is made into a paste in milk and applied to the affected area.	Konnakadu	Kasargod
14	Cyclea peltata	Menispermaceae	Padakizhangu	Malavettuavas	Burns	Leaf	Leaf is made into a paste and applied to the burns.	Konnakadu	Kasargod
15	Rotula aquatica	Boraginaceae	Kalurvanchi	Paniayas	Kidney stones	Root	Roots boiled with water and this water used internally	Nilambur	Malapuram

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