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Traditional herbal remedies of Malakudiya tribe of Kasaragod district of Kerala state

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Abstract

The present study enumerates the traditional knowledge of the Malakudiya tribes of Kasaragod district of Kerala State. The tribal people are still depending on the traditional healthcare system to heal their ailments. The nearby forests and surroundings waste lands providing adequate raw materials for the preparation of herbal remedies. An open-ended semi-structured interview with a rather simple questionnaire was employed to collect the traditional information. A total number of 10 informants from the Malakudiya tribal community were interviewed and are having an age group of 50-80 during the course of study. Traditional knowledge of 21 plant species belonging to 18 families were documented for treating around 16 kinds of ailments. Rutaceae and Aristolochiaceae are the dominant families. It is an attempt made to preserve the rich traditional wealth of the tribal community.

Keywords: Ethnobotany, Medicinal plants, Ethnomedicine

1. Introduction

The ability of humanbeings to exploit the natural resources around him to his advantage has indeed made humans the most successful and powerful organism on planet earth. This ability coupled with the capacity to innovate enabled humans to build material civilizations and development of economic systems and thoughts are all inherently and intricately interwoven with the biological resources (Pushpangadan & Kumar, 2005). In India, in ancient times the knowledge about natural plant and animal life was an integral part of a person's learning (Jain, 1998). By living close to nature, the traditional people have acquired unique knowledge about wild flora and fauna, most of which are new to the people who live away from such ecosystems. After years of observation, analysis and trial & error experimentations, the innovative members of communities have selected and identified variety of uses for these rich resources. The traditional knowledge, skill and practices thus developed are freely exchanged, nurtured and nourished usually as common property of the community. Perhaps, due to the increasing commercial interest in the western world in particular that people began to take greater interest in collecting ethnic information and utilizing local natural resources mainly plants that led to the birth of new science called ethnobotany.

Though many works related to ethnobotany have been done in different parts of India, works regarding indigenous origin of medicine and traditional observations in Kerala especially Kasaragod district are limited. An elaborate floristic study of Kasaragod division was

done by Ansari (1985). With reference to ethnobotanical work, Prasad & Raveendran (2010) studied traditional plants for fencing and their conservation aspects. Suresh (2010) studied about the indigenous agricultural practices among Mavilan tribe in north Kerala.Ethnobotany of Kasargod district was carried out recently (Rajith, 2012 and Rajith and Mohanan, 2013). Rajith *et al* (2016) reported some traditional wound healing plants of Kasaragod. An introductory ethnobotanical investigation on Zingiberales used by Malavettuvan and Mavilan tribes of Kasaragod district were made by Thomas *et al* (2017) and a study carried out on indigenous herbal remedies practiced by the tribes of Kasargod district by Anish Babu & Antony (2017). However, the ethnomedicobotany of the Malakudiya tribe of Kasaragod district is the first scientific report and the information is unique. Hence it is needed to safeguard the rich traditional wealth of the community.

2. Materials and Methods

The area selected for the present ethnobotanical study is the northernmost district of the State of Kerala, Kasaragod district. It is located at 12.5°N 75.0°E. It has an average elevation of 19 meters (62 ft). According to the 2011 census, the district has a total population of 1,307,375 and has a population density of 654 inhabitants per square km (1,690/sq m.). Kasaragod has a sex ratio of 1079 females for every 1000 males and a literacy rate of 89.85%.

There are five scheduled tribe communities inhabiting in the district. They are Koraga, Mavilan, Adiyan, Malavettuvan and Malakkudiya respectively. Malakudiya tribes are mainly inhabit in the Paivalike, Puthige, Panathady, Enmakaje, Vorkadi, Meencha and Belur Gramapanchayaths of Kasaragod district and are also found in Coorg (Kodaku), the neighbouring district of Karnataka State. Those who live in lowland are called Kudiya and highlanders are the Malakudiya. They usually speak Tulu language. The total population is below 1000 in Kasaragod district and their literacy rate is 38.31%. Traditionally, they were hunters and gatherers and in the course of time, turned into marginal farmers. They also make baskets for their livelihood. Those living in remote and isolated areas do not have adequate infrastructural facilities for their total development.

To get a broad overview of the utilization of medicinal plants and the cultural context of their uses, anthropological methods were applied (Bernard, 1988; Martin, 1995). An open-ended semi-structured interview with a rather simple questionnaire was employed to elicit information regarding the vernacular names in their local dialect or region, specific uses, associated folklore (Joseph & Antony, 2008) etc. Ethnomedicinal information includes tribal name, parts used, method of preparation, detailed application, dosage and administration of plants used for various ailments were collected.

Collected data were cross-checked by discussing with other elderly people to ensure the specificity. An interaction was made in the local language with the help of tribal promoters, during data collection. Before collecting the information, the duly filled consent form was obtained from the informants/traditional knowledge holders. Specimens were collected from the study area and identified with the help of standard floras (Gamble & Fischer, 1915 - -1936; Ansari, 1985 Ramachandran & Nair, 1988

and Bhat, 2003). Specimens were processed by wet method (Jain & Rao, 1977) made into herbarium for future reference. Photographs of tribal settlements, study area, informants, and plant parts were also taken for further reference and identification.

3. Results and Discussion

3.3 Enumeration

Aristolochia indica L. (Aristochiaceae)

Vernacular name	: Urithookki
Part used	: Root
Method of preparation	: Fresh root rushed and 5 ml expressed juice is taken orally twice daily for 3 days.
Medicinal use	: For treating stomach ache

Breynia vitis-idaea (Burm. f.) C.E.C. Fisch (Euphorbiaceae)

Vernacular name	: Pallichappu
Part used	: Leaves
Method of preparation	: Fresh leaves sliced and boiled in water and taken bath against back pain.
	: Fresh leaves are steamed and the vapour is used to get relief from toothache.
Medicinal use	: Back pain and toothache.

Cardiospermum halicacabum L. (Sapindaceae)

Local name	: Uzhinja
Partused	: Root
Method of preparation	: Fresh roots wet ground to paste.
Dosage	: Apply on legs
Medicinal use	: To cure swelling.

Calycopteris floribunda Lam. (Combretaceae)

Vernacular name	: Pullanji
Part used	: Leaves
Method of preparation	: Fresh leaves are sliced and boiled in water and taken bath.
Ailments	: For treating itching

Centella asiatica (L.) Urban (Apiaceae)

Vernacular name	: Thimira
Part used	: Whole plant
Method of preparation	: Fresh whole plants are washed and ground to paste along with capsicum, grated coconut and salt and made into chutney and taken with cooked rice.
Medicinal use	: For peptic ulcer.

Cyclea peltata (Lam.) Hook.f. &Thoms. (Menispermaceae)

Vernacular name	:	Padathuvalli
Part used	:	Tender leaves
Method of preparation	:	Fresh tender leaves are crushed to express juice and 2- 3 drops mixed in breast milk and given twice daily.
Medicinal use	:	Stomach pain for new born.

Ensete superbum (Roxb.) Cheesman. (Musaceae)

Vernacular name	:	Kalluvazha
Part used	:	Seeds
Method of preparation	:	6 dried seeds are pounded to fine powder and mixed with one glass of boiled water. Taken orally, at bed time for 41 days.
Medicinal use	:	For treating Leucorrhoea.

Glycosmis pentaphylla (Retz.)DC. (Rutaceae)

Vernacularname	:	Panal
Partused	:	Root
Method of preparation	:	Fresh root is ground to paste.
Dosage	:	Apply externally.
Medicinal use	:	To relieve stomach ache

Hemidesmus indicus (L.) R. Br. (Asclepiadaceae)

Vernacular name	:	Nannari
Part used	:	Root
Method of preparation	:	5gm root ground with cumin and garlic to paste. Mix in one glass of water and taken two times daily.
Medicinal use	:	To cure dysentery

Hibiscus hispidissimus Griff. (Malvaceae)

Vernacular name	:	Ottooli
Part used	:	Tender leaves
Method of preparation	:	Fresh tender leaves are ground along with wild capsicum, onion and salt and made to Chutney. Taken along with cooked rice.
Medicinal use	:	To cure excess bleeding during menstrual period

Mimosa pudica L. (Mimosaceae)

Vernacular name	:	Nachikamullu
Part used	:	Root
Method of preparation	:	5 gm fresh roots are ground to paste and boiled in coconut oil and concentrated. Apply externally on the affected part twice daily for 7 days.
Medicinal use	:	To cure itching

Murraya koenigii (L.) Spreng. (Rutaceae)

Local name	: Kariveppila
Part used	: Leaves
Method of preparation	: Fresh leaves are ground and prepared in the form of small balls as in the size of a gooseberry.
Dosage	: Swallow in empty stomach daily
Medicinal use	: To expel worms.

Naravelia zeylanica (L.) DC. (Ranunculaceae)

Vernacular name	: Chedivalli
Part used	: Whole plant
Method of preparation	: Fresh plant tied on the forehead.
Medicinal use	: To cure headache/migraine

Naringi crenulata (Roxb.) Nicolson (Rutaceae)

Local name	: Kattunarakam
Part used	: Bark
Method of preparation	: Fresh bark is crushed and expressed juice is collected.
Dosage	: Taken10ml thrice daily.
Medicinal use	: To cure stomach ache.

Pothos scandens L. (Araceae)

Vernacular name	: Ayithavalli
Part used	: Tender leaves
Method of preparation	: Fresh tender leaves are chewed and taken as such.
Medicinal use	: For stomach ache

Pterospermum rubiginosum Heyne ex Wight & Arn., (Sterculiaceae)

Local name	: Ellootti
Part used	: Leaves
Method of preparation	: Fresh leaves are ground along with egg white to paste.
Dosage	: Apply on the affected part and tied with a cotton piece for three weeks.
Medicinal use	: As bone setter.

Rauvolfia serpentina (L.) Benth. Ex Kurz (Apocynaceae)

Vernacular name	: Amalpori
Part used	: Root
Method of preparation	: Fresh tuberous root is crushed and expressed juice is taken 5ml, twice daily for 2 days.
Medicinal use	: For stomach ache

Smilax aspera L., (Smilacaceae)

Local name	: Chendarvalli
Part used	: Rhizome
Method of preparation	: Fresh rhizome is crushed and cooked in water along with sufficient quantity of rice and made in the form of porridge.
Dosage	: Twice daily
Medicianl use	: To cure Asthma, Ulcer.

Solanum nigrum sensu Gamble, (Solanaceae)

Local name	:	Manithakkali
Part used	:	Fruit
Method of preparation	:	Fresh fruits are chewed as such.
Dosage	:	Eaten raw.
Medicinal use	:	To cure mouth ulcer.

Strychnos nux-vomica L. (Loganiaceae)

Vernacular name	:	Kanjiram
Part used	:	Dried seeds
Method of preparation	:	Dried seeds are roasted and pounded to fine powder and applied on the affected part.
Medicinal use	:	For cuts and wounds.

Thottea siliquosa **(Lam.) Ding Hou** (Aristolochiaceae)

Vernacular name	:	Kathirkodali
Part used	:	Root
Method of preparation	:	5mg root chewed along with cumin and garlic.
Medicinal use	:	For stomach ache

The present study has revealed information of 21 different plant species belonging to 18 families. Around 10 informants from the Malakudiya tribal community were interviewed in the age group of 50-80 during the course of study. 7 were men and 3 were women. The information gathered covers a total of 16 ailments, such as stomach ache, swelling, ulcer, leucorrhoea, itching, headache, dysentery, cuts and wounds, bone fracture, back pain, asthma etc. While analysing the family of the species, Rutaceae and Aristolochiaceae are dominating (Fig.I).

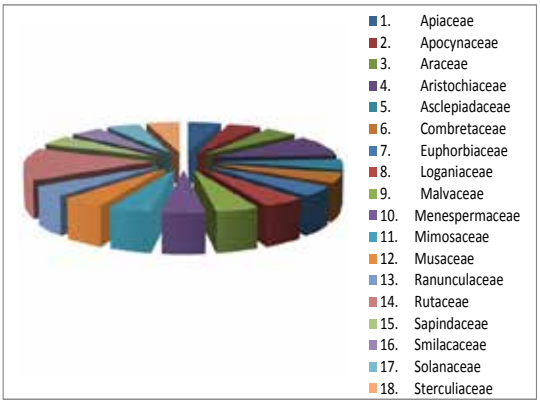

Fig. I. Family wise representation of the plant species

Almost all kinds of plant parts are used for making herbal remedies. But roots are the major plant parts used by the Malakudiyas and having eight information followed by leaves with four information. The comparison of plant parts used is depicted in the fig. II. The drugs are used as in the form of paste, porridge, powder, expressed juice etc., according to the preparation and nature of ailments. The application of the drugs include both external and internal (oral).

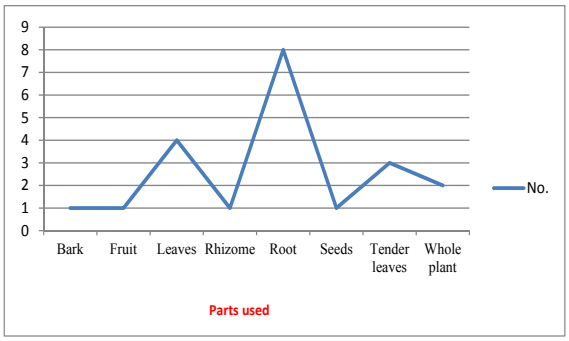

Fig. II. Comparison of plant parts

4. Conculsion

The ethnobotanical importance of these plant species pointing out the significance to think about the priority species for research and development programs necessary to sustain the local livelihood of traditional societies. It also envisages the conceptual and methodological aspects of local healing as well as local perception towards the preservation of the ethnicity. Keeping in view of the importance for documentation and conservation of this fast vanishing valuable ethnobotanical/traditional knowledge is time needed. It also provides information ensuring that future researchers to recognize the contributions made by the tribal communities and open a new window for further plant based drug discovery.

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References

1. Anish Babu V B and Antony V T 2017. A Study on Indigenous Herbal Remedies Practiced by Tribes of Kasargod District, Kerala. ABB 23, 4, 1:1-6.
2. Ansari R 1985. Studies on the Vascular Flora of Kasaragod Division, Cannanore District, Kerala State. Ph. D. Thesis, University of Madras.
3. Bernard H R 1988. Research Methods in Cultural Anthropology. Sage Publications, Newbury Park.
4. Bhat K G 2003. Flora of Udupi. Indian Naturalist (R), Udupi.
5. Gamble J S and Fischer C E C 1915-1936. The Flora of the Presidency of Madras. Adlard & Son Ltd., London.
6. Jain S K 1998. Some aspects of biodiversity and Indian traditions. Indian Journal of History of Science, 33 (1): 51-62.
7. Jain S K and Rao R R 1977. A Hand book of Field and Herbarium Methods. Today & Tommorrow's Printers and Publishers, New Delhi.
8. Joseph J K and Antony V T 2008. Ethnobotanical investigations in the genus *Momordica* L. in the Southern Western Ghats of India. Genet. Resour. Crop. Evol. 55:713–721.
9. Martin G J 1995. Ethnobotany- A Methods Manual. Chapman & Hall. London.
10. Prasad K and Raveendran K 2010. Traditional Plant for Fencing and its Conservatory Nature in Kasaragod District, Kerala, India. Ethnobotanical Leaflets 14: 681- 86.
11. Pushpangadan P and Kumar B 2005. Ethnobotany. CBD, WTO and the Biodiversity Act of India. Ethnobotany, 17: 2-12.
12. Ramachandran V S and Nair V J 1988. Flora of Cannanore. Botanical Survey of India.
13. Rajith N P, 2012.Ehnobotanical studies on Kasargod district of Kerala state with special reference to Koraga and Mavilan tribes.
14. Rajith N P and Mohanan N 2013. Ethnobotanical Studies of Koraga Tribal community of Kasaragod district. J. Trad. and Folk Practices, 1:102-108.
15. Rajith N P, Navas M, Swapna M M and Mohanan N 2016. Traditional wound healing plants of Kasaragod district, Kerala State, India. J. Traditional and Folk Practices, 02, 03 & 04(1):164-173.
16. Suresh K P 2010. Indigenous agricultural practices among Mavilan Tribe in north Kerala. Studies of Tribes & Tribals. 8(2): 103-106.
17. Thomas V P, Jose Jand Thomas B T 2017. An introductory ethnobotanical investigation on Zingiberales used by Malavettuvan and Mavilan Tribe's of Kasaragod District, Kerala. Int. J. Adv. Res. 5(6):228-234.