
Review Article**Indigenous Phytotherapy: A Study of Muthuvan Healers in the Western Ghats****Saju Abraham^{1*}**¹Assistant Professor, Department of Botany, Newman College, Thodupuzha, Idukki, Kerala***Corresponding author**

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Abstract: Nestled within the lush, mist-clad high ranges of Kerala's Idukki district lies a living library of medicinal wisdom, the Muthuvan tribe, whose name translates to "people of the mountains," have cultivated a profound symbiotic relationship with the Western Ghats, one of the world's most significant biodiversity hotspots. For centuries, isolated by choice and terrain, the Muthuvans have developed a sophisticated system of phytotherapy for various ailments which is intricately woven into their cultural fabric. This system, passed down orally through generations of healers, represents a priceless, yet vulnerable, repository of indigenous knowledge. The paper is an attempt to document the common plants used by Muthuvan community for treating various ailments and critical importance of preserving their knowledge for the future of both their community and global ethnomedicine.

Keywords: Phytotherapy, Muthuvan, Ethnomedicine, Indigenous Knowledge.

INTRODUCTION

The Muthuvan tribe is a historically rich indigenous community of the South Indian Western Ghats, known for their unique migration history, distinct language and deep connection to the forest ecosystem (Iyer, 1939). For centuries, their relative isolation, born from a conscious choice to remain guardians of the mountain ranges, has allowed for the development and preservation of a sophisticated system of indigenous phytotherapy - a complex body of knowledge concerning the use of plants for therapeutic healing (Ajesh *et al.*, 2012a). This system, meticulously passed down through an unbroken chain of oral tradition, represents far more than a mere collection of herbal remedies; it is a holistic science, intricately woven into the cultural, spiritual and social fabric of Muthuvan life. It embodies a worldview where human health is inseparable from the health of the forest and the harmony of the community.

At the heart of this living tradition are the Muthuvan healers, the *Vaidyars* or *Manthrakkarans*, who serve as the revered custodians of this knowledge. They are figures of immense respect, combining the roles of physician, botanist, pharmacist and spiritual guide, whose expertise is not archived in written texts but is carried in memory, honed through a lifelong apprenticeship that begins in childhood (Shyma and Devi Prasad, 2012). This training involves mastering the identification of hundreds of plant species, often by sight, smell, and taste, learning the precise seasons for collection, the specific plant parts to be used, and the

intricate methods of preparation, whether as a fresh juice, a dried powder, a slow-brewed decoction or a paste blended with synergistic ingredients. Their practice is evidence to an intimate ecological understanding, where a fever is not just a symptom but a disruption of balance and the forest offer not just a cure, but a restoration of harmony. The paper is an attempt to document the common plants used by Muthuvan community for treating various ailments and critical importance of preserving their knowledge for the future of both their community and global ethnomedicine.

Key medicinal plants and applications

The Muthuvan tribe's phytotherapeutic knowledge is a precise and sophisticated system, with specific plants applied for targeted ailments. A cornerstone of their medicine is Maramanjil (*Coscinium fenestratum*), a woody climber known as tree turmeric. The bright yellow stem is used to prepare a potent decoction for treating jaundice, diabetes and a range of skin diseases, valued for its strong antipyretic and blood-purifying properties (Nayak *et al.*, 2012). For musculoskeletal injuries, the Muthuvans turn to Changalam Paranda (*Cissus quadrangularis*). The stems of this succulent are crushed into a paste and applied as a poultice to fractures and sprains, acting as a natural bone-setter to accelerate healing (Kaur and Malik, 2014). Digestive ailments are commonly treated with plants like Cheriya Kataladi (*Cyathula prostrata*), whose decoction alleviates stomach aches and dysentery and the unripe fruit of the Koovalam (*Aegle marmelos*) tree, which is

made into a tonic for chronic indigestion and constipation.

For fevers, particularly in children, the rhizome of Vayambu (*Acorus calamus*) is a primary remedy, while the intensely bitter Kiriyaathu (*Andrographis paniculata*) is considered a cure-all, used to treat everything from infections and liver disorders to poisoning (Ghosh *et al.*, 2012; Amit and Vandana, 2013). Skin diseases like eczema and scabies are addressed with the crushed leaves of Panal (*Glycosmis pentaphylla*), applied topically to soothe irritation and promote healing. Beyond these common applications, the Muthuvan repertoire includes remedies for more complex conditions. The seeds of Ramacham (*Vetiveria zizanioides*) are used for urinary complaints and the bark of the Nili (*Indigofera tinctoria*) plant is employed to

alleviate the symptoms of asthma. What makes this knowledge system particularly remarkable is the Muthuvan understanding of polyherbal formulations and synergies. Healers rarely rely on a single plant; they often combine ingredients to enhance efficacy or mitigate potential side effects, demonstrating a nuanced understanding of plant chemistry that mirrors modern pharmacological principles (Sabale *et al.*, 2012). This intricate web of plant-based knowledge, passed down orally through generations, positions the Muthuvan healer as both a botanist and a physician, whose pharmacy is the vast, living forest itself. The variations in selection of medicinal plants by tribal healers for various ailments from Bangladesh reiterated this tribal heritage (Hasan *et al.*, 2012). Table 1 illustrates few notable examples that highlight the specificity and efficacy of herbal practice of Muthuvans.

Table 1: List of major plants used by Muthuvans for various ailments

Sl. No.	Plant	Ethnobotanical usage
1.	<i>Abrus precatorius</i>	Seed paste applies externally for inflammation. Seed soaked in coconut oil to apply for hair growth; Seed jewels used for antiseptic and Skin diseases.
2.	<i>Adenia hondala</i>	The medicated oil (Thailm) made from leaves are used to get relief from joint pain
3.	<i>Acacia sinuata</i>	Fruit powder used for dandruff
4.	<i>Adenanthera pavonina</i>	Seeds paste externally used as antiseptic, seed jewels are wearing for antiseptic.
5.	<i>Aristolochia grandiflora</i>	The leaves are applied on the snake bite wounded area.
6.	<i>Aristolochia indica</i>	The leaves along with fresh curcuma are made into a paste and applied on the affected part
7.	<i>Argyreia nervosa</i>	Unripe fruits soaked in neem oil then apply for Diabetic wound
8.	<i>Averrhoa carambola</i>	Fruit extract 20 ml orally given with honey to reduce obesity.
9.	<i>Bombax ceiba</i>	10g Unripe young fruit powder orally given daily with hot water for increase sperm counting.
10.	<i>Bridelia retusa</i>	Fruits eaten as raw for anaemia and improve blood countings.
11.	<i>Caesalpinia crista</i>	Seed pastes with neem oil externally apply for skin rashes. Seed kernel 10 g orally given with hot water for stomach pain.
12.	<i>Cardiospermum canescens</i>	Seed soaked in coconut oil and used for dandruff and hair fall.
13.	<i>Calophyllum inophyllum</i>	Oil is externally used for ring worm, Seeds made in to jewel and wear as chain for skin diseases.
14.	<i>Capparis zeylanica</i>	Fruit used as pickle, eaten as raw also. Fruit juice 20ml orally given for reduces over menstrual bleeding.
15.	<i>Careya arborea</i>	10g Fruit powder made into 100ml decoction orally given for Stomach ulcers.
16.	<i>Carissa carandas</i>	Fruit used as pickle for indigestion, 20-50ml fruit juice orally given to urinary irritation.
17.	<i>Cassia fistula</i>	Fruit yielding dark gum apply externally on sex organs for venereal diseases.
18.	<i>Catunaregam spinosa</i>	Fruit paste apply externally for prevent Leach bite in forest
19.	<i>Celastrus paniculatus</i>	Fruit juice 100ml daily orally given for nervous weakness. Seed soaked in coconut oil to apply externally as massage for paralysis.
20.	<i>Chromolaena odorata</i>	The leaves are crushed and bandaged on the wounds
21.	<i>Cipadessa baccifera</i>	Fruit juice used as gargle for bleeding and swelling gum.
22.	<i>Coleus amboinicus</i>	The leaves are crushed and bandaged on the wounds
23.	<i>Cordia dichotoma</i>	Fruit juice 30-50ml orally given for constipation Fruit pastes apply externally for skin irritation.

24.	<i>Citrullus colocynthis</i>	Fresh fruit paste apply externally for joint pain Dried fruit powder 10g orally given with hot water for Diabetic.
25.	<i>Crescentia cujete</i>	Fruit pod smoke inhaled for Asthma. Pod powder apply externally with neem oil for skin diseases.
26.	<i>Croton tiglium</i>	Fruit pastes externally apply for swellings and skin diseases. Fruit soaked in coconut oil externally apply for Paralysis.
27.	<i>Cyclea peltata</i>	The tubers along with <i>Moringa oleifera</i> and <i>Curuma longa</i> is crushed and applied on the snake bite site as antidote
28.	<i>Desmodium triflorum</i>	The leaves are crushed and bandaged on the wound
29.	<i>Elaeagnus kologa</i>	Fruit eaten as raw for good health
30.	<i>Debregeasia longifolia</i>	Fruit juice 100ml orally given for stomach ulcers.
31.	<i>Diospyros malabarica</i>	50 ml Fruit juice orally given for reduce fever and chronic dysentery.
32.	<i>Embelia ribes</i>	100 ml Fruits decoction given for stomach problems and intestinal worms
33.	<i>Entada scandens</i>	20g Seed powder orally given with milk for sexual disorders.
34.	<i>Fagraea ceilanica</i>	Fruit paste uses as fly glue to control diseases transmitting fly.
35.	<i>Garcinia gummi-gutta</i>	Fruit used as pickle and 10-20 ml of juice orally given for obesity.
36.	<i>Glochidion zeylanicum</i>	The juice of leaves is mixed along with two drops of <i>Mucuna pruriens</i> leaves juice and taken internally for ulcers
37.	<i>Glycosmis pentaphylla</i>	The leaves of this plant are boiled and advised to take bath for respiratory illnesses
38.	<i>Helicteris isora</i>	The fresh bark of the mature portion of the stem is eaten for digestive problems
39.	<i>Justicia adhatoda</i>	The leaves juice is taken internally dysentery
40.	<i>Malaxis acuminata</i>	The watery sap of the stem is consumed for stomach pain
41.	<i>Naravelia zeylanica</i>	The stem bark is crushed and either it is applied on the forehead and/or the juice is smelled for headache
42.	<i>Naringi crenulata</i>	The leaves are boiled in coconut oil and applied on the head as cooling agent
43.	<i>Phyllanthus amarus</i>	The juice of aerial parts is taken internally for jaundice
44.	<i>Plumbago rosea</i>	The leaves are made into a paste and applied on the affected part for vitiligo
45.	<i>Rauvolfia serpentina</i>	The leaves juice is taken internally for snake bite
46.	<i>Scoparia dulcis</i>	Decoction of aerial parts is taken internally in the morning for kidney stones
47.	<i>Selaginella kraussiana</i>	The leaves are crushed and bandaged on the wound
48.	<i>Sida rhomboifolia</i>	The decoction of the leaves is taken internally for fever
49.	<i>Thottea siliquosa</i>	The lower bark is eaten for stomach pain
50.	<i>Vitex negundo</i>	The crushed leaves are applied topically on the affected part for joint pain

The healers often create complex polyherbal formulations where one plant enhances the effect of another or mitigates its potential side effects, a principle that mirrors modern pharmaceutical concepts.

The spiritual dimension

The spiritual dimension of Muthuvan traditional healing is an inseparable thread woven into the very fabric of their existence, representing a worldview where illness is rarely a random physical event but a symptom of a deeper disharmony. For the Muthuvan, the health of an individual is intrinsically linked to the health of their community and the balance of the natural and spiritual worlds. Their healing practices, therefore, are not merely medical procedures but sacred rituals aimed at restoring a lost equilibrium. The healer, often known as a '*kani*' or elder, is not just a practitioner of herbal lore but a mediator between the human and the spirit realms, a figure endowed with the wisdom to diagnose both physical and supernatural afflictions. At the heart of this

spiritual framework is the belief that many ailments, especially those of a sudden or mysterious nature, are caused by the displeasure of ancestral spirits or the intrusion of malevolent forces disturbing the individual's life force. A fever might be seen as a sign of a troubled ancestor, while a chronic illness could be the result of a broken taboo or a curse. The diagnosis itself is a spiritual act, often involving divination, the interpretation of dreams, or the reading of signs in nature to identify the root cause. The healing ritual that follows is a profound communal performance. It can involve offerings of rice, flowers and coconuts to appease the spirits, the chanting of specific mantras passed down through generations and sometimes, rhythmic drumming and trance-like states where the healer directly communicates with the spiritual entities.

This process is a powerful form of psycho-spiritual therapy, reaffirming the patient's place within the protective cosmic and social order. The entire

community often participates, reinforcing social bonds and collective identity, making the healing as much about reintegrating the individual into the group as it is about curing a physical symptom. Thus, the Muthuvan healer does not simply treat a disease; they perform a sacred duty, mending the invisible tears in the relationship between the person, their ancestors and the living forest they call home, demonstrating a holistic understanding of well-being that modern medicine is only beginning to appreciate.

CONCLUSION

In conclusion, the study into the phytotherapeutic knowledge of Muthuvan healers reveals a sophisticated and deeply integrated system of healthcare that is both empirically grounded and culturally sacred. The healers of this indigenous tribe are not mere collectors of plants; they are living repositories of an extensive biocultural heritage, possessing a nuanced understanding of the medicinal properties, specific plant parts, optimal harvesting times and precise preparation methods for a vast array of flora in the Western Ghats. Their expertise demonstrates a profound, generations-old observation of the natural world, resulting in a complex pharmacopoeia that effectively addresses a wide spectrum of ailments, from common fevers and wounds to more chronic conditions. However, to view this system solely through a modern pharmacological lens would be to miss its essence. Muthuvan phytotherapy is inextricably woven into a larger spiritual and cosmological framework where physical wellness is inseparable from spiritual harmony and social order. The healing process is a holistic ritual, where the administration of a herbal decoction is often accompanied by invocations, offerings and practices aimed at restoring balance between the patient, the community and the natural world. The study underscores the critical importance of preserving this invaluable knowledge, which is facing existential threats from environmental degradation, cultural assimilation and a lack of intergenerational transmission. The findings advocate for a concerted effort towards ethno-directed conservation, which prioritizes the sovereignty of Muthuvan knowledge systems while exploring pathways for their documentation and respectful integration. Ultimately, the wisdom of the Muthuvan healers offers not just potential leads for new medicines, but a vital paradigm for understanding human health as an integral part of a healthy, living ecosystem.

REFERENCES

- Ajesh, T.P., Abdulla Naseef, S.A., Kumuthakalavalli, R. 2012. Preliminary study on the utilization of wild vegetables by Muthuvan tribes of Idukki district of Kerala, India. *International Journal of Applied Biology and Pharmaceutical Technology*. 3:193-199.
- Ajesh, T.P., Abdulla, Naseef S.A., Kumuthakalavalli, R. 2012a. Ethnobotanical Documentation of wild edible fruits used by Muthuvan tribes of Idukki, Kerala-India. *Int. J. Pharm. Bio. Sci.* 3(3):479-487.
- Amit, K. and Vandana. 2013. Medicinal properties of *Acorus calamus*. *Journal of Drug Delivery & Therapeutics*. 3(3):143-144.
- Ghosh, B.K., Datta, A.K., Mandal, A., Dubey, P.K., Halder, S. 2012. An overview on *Andrographis paniculata* (Burm. F.) Nees. *International Journal of Research in Ayurveda and Pharmacy*. 3(6):752-760.
- Hasan, M.E., Akter, S., Piya, N.S., Nath, P.K., Nova, U.S.R., Chowdhury, H.R., Anjoom, N.F., Khatun, Z., Rahmatullah, M. 2012. Variations in selection of medicinal plants by tribal healers of the Soren clan of the Santal tribe: a study of the Santals in Rajshahi district, Bangladesh. (2012). *American-Eurasian Journal of Sustainable Agriculture*. 6(4):315-324.
- Iyer, L.A.K. 1939. *The Travancore Tribes and Castes*. Government Press, Trivandrum.
- Kaur, R., Malik, C.P. 2014. *Cissus quadrangularis* L - Its Botany, Chemistry and Medicinal Importance: A Review. *International Journal of Pharmaceutical and Clinical Research*. 6(1):27-35.
- Nayak, A., Sajini, J., Padmavati, D., Karthik, R. 2012. Chemistry and medicinal properties of *Coscinium fenestratum* (Gaertn.) colebr (tree turmeric). *Research Journal of Pharmacy and Technology*. 5(2):198-202.
- Sabale, P., Bhimani, B., Prajapati, C., Sabale, V. 2012. An overview of medicinal plants as wound healers. *Journal of Applied Pharmaceutical Science*. 2(11):143-150.
- Shyma, T.B. and Devi Prasad, A.G. 2012. Traditional use of Medicinal Plants and its Status Among the Tribes in Mananthavady of Wayanad District, Kerala. *World Research Journal of Medicinal & Aromatic Plants*. 1(2):22-26.