

Medicinal plants used for treating body pain by the tribals in Pathanamthitta district, Kerala, India

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This paper is based on the medicinal plants used for treating body pain by the tribals in Pathanamthitta district. There are about 6 tribal communities (*Malappandaran, Urali, Mala-arayan, Ulladan, Malavedan* and *Malakurava*) inhabiting this area. They have a very good knowledge of medicinal plants in their surrounding forest. Information about 10 plants used for treating body pain is collected.

Keywords: Ethno-botany, Ethno-medicine, Medicinal Plants, Body pain, Pathanamthitta

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The primitive tribals acquired the knowledge of economic and medicinal properties of many plants by trial and error methods and they are the store house of such knowledge. This accumulated knowledge is passed on from one generation to the other by oral tradition without any written document. The life and culture of the tribals in the district is fast changing due to the developmental activities initiated by Government and non-Government agencies. In view of this study was undertaken to document their valuable information about the plants. Medicinal plants play a key role in the daily life of the tribals in the district.

Pathanamthitta district came into existence in 1992. It is carved out from portions of other 3 districts, viz. Kollam, Alappuzha and Idukki and occupies an area of 2697.15sq km. It lies between 09° 05' N latitude and 76° 16' E longitude. The district is divided into 5 taluks, viz. Ranni, Kozhencherry, Adoor, Tiruvalla and Mallappally. Topography is highly undulating with hills and valleys. Altitude ranges from 5-1200m. The lowest is represented by Tiruvalla (5-10m) and highest by Kakki hills (1000-1200m). Temperature varies from 24 to 36°C in plains and 15 to 32° in the hills. March, April and May are the hottest months whereas December and January are the coldest. The southwest monsoon (June to September) and Northeast monsoon (October to November) provide an average of 714 and 450mm rain respectively. The district experience a tropical humid

climate and relative humidity varies from 64 to 98%. Forest occupy 64% (1720sq.km) of the total area of the district. Tropical evergreen, tropical semi-evergreen, tropical moist deciduous, shoals and grasslands are the main vegetation types.

India has 8.2% tribal population, Kerala has only 1.14% (Censes 2001). In Pathanamthitta district there are 6 tribal communities, viz. Malappandaran, Urali, Mala-arayan, Ulladan, Malavedan and Malakurava, constituting only 0.6% of the total population in the district¹. They belong to Proto-Austroloid and Negrito group and speak a corrupt form of Malayalam with an admixture of Tamil.^{2,3,4} In the past they lived on hunted food, tubers, roots and wild fruits but now they use rice as their staple food. They collect Non Wood Forest Produce and barter them in local market for rice and other complimentary parts.

Methodology

Field surveys were conducted once in every two months from 1991 to 1996 with a duration of 10–25 days. About 5–10 days were spent during each trip with different tribes in the forests. Initial study trips were utilized to know more about the land and people and collect plants for taxonomic identification. After establishing good acquaintance with the tribals, the utility of plants, detailed methods of uses were documented. Stay in tribal settlements and independent tribal huts helped to witness their pattern of plants utilizations.

Details were daily transferred on to the field data, collection number, tribe, inhabited area/colony, forest, plant name etc. Data collected were cross checked with the data obtained from same as well as on different settlement on different occasions for authenticity. Plant parts other than herbarium which were of ethno-botanical use like fruits, seeds, barks, etc are kept in the museum of Tropical Botanic Garden and Research Institute with field data as pickled or dried specimens after proper identification.

Enumerations

1 *Asparagus racemosus* Willd. (Liliaceae), Local name: *Satavari*

Uses: Tubers are collected fresh and made into a paste without using water. This paste is applied on body to subdue body pain. S.Binu 7066 (TBGT), 18-4-1991.

2 *Celastrus paniculatus* Willd. (Celastraceae), Local name: *Kattadinayakam*

Uses: Freshly collected and thoroughly washed roots are cut into pieces and ground into a paste with a little of water with a few cumin seeds (*Cuminum cyminum*). This paste, equivalent to the size of a gooseberry, mixed in one bowl of rice gruel (about 500 ml) and a little of cow's milk is consumed thrice a day for five days on the 5th day, instead of cow's milk, juice expressed from fresh coconut is used.

This medicine is prepared by the *Malakuravas* in the month of *Karkidakam* (July/August). They believe that this medication taken in cow's milk helps relaxation of muscles and coconut milk in turn helps hardening them. Tribals of Pathanamthitta observe a health therapy in the month of *Karkidakam* to rejuvenate their vitality and health. It was observed that non tribals people also practise such a system in Pathanamthitta. In *Ayurveda*, there is a *rasayana* therapy to rejuvenate health and vitality. The one practiced by non tribal people is almost a diluted form of *rasayana* therapy prescribed and supervised by local *Vaidayas* or the eldest of the family who acquired this knowledge from his predecessors. Interestingly it is in the month of *Karkidakam* the highest rain period, this therapy is conducted in *Ayurveda*, Folk system of medicine in Kerala and tribal system of medicine in Pathanamthitta district, S. Binu 14908 (TBGT), 5-10-1992.

3 *Elaeagnus conferta* Roxb. (Elaeagnaceae), Local name: *Bhasmaruli*

Uses: One handful of leaves made into a paste in water mixed with a little of cow's milk and is taken internally for 6 days and of the 7th day the paste is mixed in coconut milk instead of cow's milk and consumed. S.Binu 2169 (TBGT), 14-9-1991.

4 *Flemingia strobilifera* (L.) R.Br.ex Ait.(Fabaceae), Local name: *Adakkamaniyan*

Uses: Fresh leaves are cut into small pieces and boiled in coconut oil till the green colour turns to black. It is allowed to cool to room temperature and this medicated oil is applied on body about half an hour before bath in cases of problems associated with body pain. S. Binu 2132(TBGT), 30-7-1991.

5 *Gouania microcarpa* DC. (Rhamnaceae), Local name: *Palkattadi*

Uses: Roots are collected fresh and cut into small pieces. They are crushed in water and juice is expressed. About one spoon (20 ml) of juice is mixed in about one small vessel (150 ml) of rice gruel and consumed. S.Binu 14950 (TBGT),19-1-1993.

6 *Helicteres isora* L. (Sterculiaceae), Local name: *Edampiri valampiri*

Uses: Roots are cut into small pieces and about one handful of them is boiled in about 2L water till reduced to ¼ of the volume. This decoction is taken in the morning and evening. S.Binu 2186 (TBGT), 17-4-1991.

7 *Kunstleria keralensis* Mohanan et Nair (Fabaceae), Local name: *Jarambupanal*

Uses: Fresh bark is collected and cut into small pieces. They are boiled in water. When cooled to lukewarm, it is used for bathing. S. Binu 3083 (TBGT), 15-3-1991.

8 *Myristica malabarica* Lamk. (Myristicaceae), Local name: *Ponnampuve*

Uses: A handful of fresh bark flakes are boiled in 3-5 L water to prepare a decoction. This decoction is used to prepare rice gruel instead of water and consumed. S.Binu 7043 (TBGT), 14-3-1991.

9 *Sphenodesme involucrata* (Presl) Rob.var. *paniculata* (Cl.) Munir.(Verbenaceae), Local name: *Njarambodal*

Uses: Fresh mature leaves are ground to a paste in water. It is mixed in rice gruel. This medicated gruel is taken as normal two times a day. S. Binu 3052 (TBGT), 15-3-1991.

Discussion

Present surveys reveals that the tribes of Pathanamthitta are aware of the indigenous or traditional knowledge of employing *Asparagus recemosus*⁷, *Flemingia strobilifera*⁸, *Helicteres isora*⁹ and *Myristica malabarica* for relieving body pain. However, their practical knowledge about use of roots of *Celastrus paniculata* and *Gouania microcarpa*, bark of *Kunstleria kerelansis*, leaves of *Sphenodesme involucrate* and whole plant of *Rotala leptopetala* is a new information for the traditional system of medicine. There is wide scope for further scientific study in these plants.

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