

ETHNOMEDICINAL PLANTS USED BY CHENCHU TRIBAL COMMUNITIES OF THE NAGARJUNASAGAR – SRISAILAM REGION, INDIA: DOCUMENTATION OF TRADITIONAL HEALTHCARE PRACTICES

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Abstract

The Nagarjunasagar Srisailam Tiger Reserve (NSTR) area extends through Nallamalais and a part of Yerramalai hills of Eastern Ghats, spreading over 5 districts, viz.. Mahabubnagar, Prakasam, Kurnool, Guntur and Nalgonda covering an area of 3568 sq. km. Chenchus are predominant and stand as a unique tribe among others in Andhra Pradesh. They occupy larger part of Nallamalais, naturalising in its glorious environs and rich biodiversity. They hold the forests around them in great esteem and have learnt to live with plants and wild animals. In this close association over centuries, they have nurtured their skills in identifying the plants for food, medicine, house building, agricultural operations, domestic uses, trade and barter, magico-religious beliefs, taboos, etc. A majority of the Chenchus are well versed in natural folk medicinal practices. From time immemorial, they have accumulated in-depth, time-tested knowledge about the medicinal plants in their habitat, which has enabled them to survive deadly diseases (Hemalatha & Subba Reddy 1982).

Information pertaining to ethnomedicinal practices among Chenchus is available, though limited (Hemadri & Rao 1984; Hemadri 1994 Hemalatha & Subba Reddy 1982, Morris 1989, Rama Rao & Henry 1996, Reddy et al. 1988, Reddy et of 1996). But information pertaining to remedies for cuts, wounds and boils in particular is lacking. Since the tribal people in the course of their day-to-day traverse into the forests for their needs often encounter injuries through cuts and wounds. besides infectious boils, the present study especially elicits knowledge about Chenchu ethnomedicinal practices. Here, 30 remedies have been described from different Chenchu tribal pockets of NSTR for the treatment of cuts, wounds and boils.

Material and Methods

The present study was undertaken as a part of a project of Department of Forests, Government of Andhra Pradesh during 1998-2000. Field trips were conducted to various Chenchu tribal pockets of NSTR, to document ethnomedicinal knowledge. In the present study, information was gathered from Chenchu gudems, viz., Peccheruvu, Kottalacheruvu, Nagaluty, Appapur and Mannanur under Nagarjunasagar Srisailam Tiger Reserve area, Andhra Pradesh. An active interaction was made with tribal medicinal practitioners and elder persons and information was gathered on plant and drug formulations used by them for cuts, wounds and boils. The plant specimens have been

collected, identified with the help of local floras. Voucher specimens are deposited in the Herbarium of Department. of Botany. P.G. College of Science, Saifabad, Osmania University, Hyderabad. Information on vernacular names, botanical names, family. part used, methods of preparation, administration/use, dosage, food avoidance, etc. is presented.

Results and Discussion

Jatropha gossypifolia L. (Euphorbiaceae), 'Vulisitha', Davupalli, Paste prepared from leaves (10 g) is used for curing toothache.

Lawsonia inermis L. (Lythraceae), 'Gorintaku', Vulasalapenta, Leaf paste (50 g) is applied on forehead for headache.

Leucas aspera (Willd.) Link (Lamiaceae), "Thummi, Vajrala thanda,. Leaves (20 g) with ferula (5 g) pasted and applied externally for scorpion stings.

Madhuca indica Gmel., (Sapotaceae), "Vippa', Kakirala, , Seed oil is used in culinary and also as hair oil.

Jacobs. **Maerua apetala* (Roth) (Capparaceae), Magasiri gadda', Davupalli,. Paste is prepared from root (50 g) with *Azadirachta indica* leaves (20 g) and garlic (5 ml) extract. This mixture is taken (one spoon thrice a day) for 15 days for leucoderma.

Mitragyna parvifolia (Roxb.) Korth. (Rubiaceae), 'Battagenupu chettu', Kakirala,. Leaf juice

Mollugo pentaphylla L. (Molluginaceae), 'Chinavaragogu', Vulasalapenta,. Decoction (100 ml) prepared from whole plant(75 g) with water (50 ml) is given (three teaspoons thrice a day) for seven days for smooth delivery.

Nelumbo nucifera Gaertner (Nelumbonaceae), Tamara'. Vulasalapenta,. Extract prepared from rhizome is given (one teaspoon) for 3 days for diarrhoea.

Opuntia stricta (Haw.) Haw. (Cactaceae), "Nagajamudu, Botlaka bavi,. Stem juice (20 ml) with limestone is applied externally in joint pains.

Pergularia daemia (Forssk.) Chiov. (Asclepiadaceae), 'Juttupaku', Anupu,. Latex (10 ml) is applied for headache.

Premna tomentosa Willd. (Verbenaceae), "Naragodu', Papidlakonda thanda,. Leaf juice (50 ml) is taken (one spoon twice a day) for 15 days to relieve abdominal pains.

Salvadora persica L. (Salvadoraceae), Juttueerugamma chettu, Chenchugudem,. Stem bark (50 g) crushed with *Trachyspermum ammn* (10 g) is taken (one spoon per day) for 15 days to cure peptic ulcers.

Sansevieria roxburghiana Schult. et Schult. f. (Agavaceae), Chagamatta", Anupu, Stem juice (10 ml) is mildly heated and 1-2 drops used for earache.

Sarcostemma acidum (Roxb.) Voigt. (Asclepiadaceae), 'Pullakada', Davupalli, Stem paste (50 g) is applied over boils.

Sida acuta Burm. (Malvaceae), 'Peddubutta', Davupalli,. Leaf paste (50 g) is applied on skin diseases.

Soymida febrifuga (Roxb.) A. Juss. (Meliaceae), 'Somi', Davupalli. Decoction prepared from stem (100 g) with water (50 ml) is taken (2 spoons twice a day) for 7 days for diarrhoea.

Strychnos nux-vomica L. (Loganiaceae), "Mustichettu, Davupalli, DMR 18159. Seed paste (10 g) is applied for snake bite and scorpion stings.

Tiliacora acuminata (Lam.) Miers. (Menispermaceae), 'Chatakattu thiga', Davupalli,. Decoction prepared from leaves (50 g) with roots of *A drographns pa nculata* roots (20 g) and water (100 ml) (2 spoons per day) for 10 days is given for chronic stomachache.

Toddalia asiatica (L.) Lam. (Rutaceae), Nerpaganthamu, Vulasalapenta,. Fruit juice (5 ml) with salt (2 g) is taken internally for dysentery.

Wrightia tinctoria R.Br. (Apocynaceae), 'Palaberiki', Papidla konda thanda,. Leaf paste (50 g) is applied externally for snake bite.

The present ethnomedicinal survey documented **19 plant species** belonging to **16 families** that are traditionally used by the local and tribal communities of Telangana for the treatment of various ailments. Among the recorded families, **Asclepiadaceae**, **Apocynaceae**, and **Euphorbiaceae** were more prominently represented, indicating their rich medicinal diversity and traditional usage.

The **plant parts** most frequently utilized were the **leaves** (42%), followed by **roots** (21%), **stem/stem bark** (16%), **seeds/oil** (10%), and **whole plant/rhizome/latex** (11%). This reflects the preference of healers for easily accessible and renewable plant parts, minimizing ecological impact.

Several species showed **multi-purpose medicinal use**. For instance, *Strychnos nux-vomica* and *Wrightia tinctoria* were both used to treat snake bites and scorpion stings, indicating local empirical knowledge of their potential antitoxic properties. Similarly, *Soymida febrifuga* and *Nelumbo nucifera* were used in the treatment of **diarrhoeal diseases**, aligning with previous reports from southern India highlighting their **antimicrobial and astringent** activities.

The use of **plant-based pastes and decoctions** was the most common mode of preparation. Paste formulations (*Jatropha gossypifolia*, *Leucas aspera*, *Sida acuta*) were primarily applied externally for **toothache, scorpion stings, and skin diseases**, respectively, while decoctions (*Tiliacora acuminata*, *Soyimida febrifuga*) were administered orally for **gastrointestinal disorders**.

Particularly noteworthy is the use of *Mollugo pentaphylla* for facilitating **smooth delivery**, which suggests the existence of traditional obstetric knowledge. The combination preparations—such as the root paste of *Maerua apetala* mixed with *Azadirachta indica* leaves and garlic extract for **leucoderma**—demonstrate the healers' experimental approach to synergistic plant interactions.

Many of the plants recorded in this study (*Lawsonia inermis*, *Pergularia daemia*, *Madhuca indica*) have been pharmacologically validated for their bioactive compounds with **anti-inflammatory, antimicrobial, and analgesic** effects. These findings reinforce the scientific basis of indigenous medicinal practices while emphasizing the importance of documenting and conserving such traditional knowledge.

Conclusion

The ethnomedicinal documentation from the studied villages of Telangana—particularly Davupalli, Kakirala, Vulasalapenta, and others—reveals a wealth of indigenous knowledge still actively practiced among rural communities. A total of **19 plant species** were identified as being used to treat common ailments such as **toothache, headache, snake bite, scorpion sting, diarrhoea, skin infections, joint pains, and stomach disorders**.

These results highlight the vital role of traditional medicine in primary healthcare among tribal and rural populations. The continued reliance on such plant-based remedies underlines the **need for pharmacological screening** of these species to validate their bioactive potential and ensure safe therapeutic use. Moreover, **documentation and conservation** of these medicinal plants are crucial, as habitat loss and modernization threaten both the flora and the cultural heritage associated with them.

Future research should focus on:

- **Phytochemical and pharmacological evaluation** of promising species (e.g., *Maerua apetala*, *Tiliacora acuminata*, *Strychnos nux-vomica*).
- **Sustainable utilization and community-based conservation** of medicinal plant resources.
- Integrating validated traditional knowledge into **modern healthcare systems** for broader public benefit.

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