



Documentation of traditional herbal remedies for gynecological disorder in Women of Chitradurga District, Karnataka, India

N. Mahesha¹, Shrishail^{*2}

*Department of P.G. Studies and Research in Applied Botany, Kuvempu University,
Jnana Sahyadri, Shankarghatta, Shivamoga, Karnataka, India*

Article published on April 23, 2023

Key words: Folk, Remedies, Practitioners, Medicinal plants Chitradurga, Ethnomedicine, Gynaecological disorders

Abstract

A survey of medicinal plants used by the rural population of Chitradurga District, Karnataka, India. Gynaecological disorder is one of the most several conditions under reproductive health. Investigated and collected information from traditional practitioners on the medicinal plants use for treatment of gynaecological disorders in Chitradurga district. The ethnomedicinal information was collected through interview, informal meeting, and group discussions and overt observation with semi-structure questionnaires among traditional practitioners, has been made to assess the medicinal value of herbal healers. It is observed that the surrounding people are practicing traditional herbal medicine in their healthcare system. About 29 plant species belonging to 29 genera and 25 families are largely used as medicine, have been recorded from Chitradurga District. The most frequently used medicine plants were prepared in the form of paste and administrated orally. Where included there botanical and vernacular names, plants parts used, popular medicinal use form of preparation abdications of the herbal remedies are given.

***Corresponding Author:** Mahesha N ✉ maheshn08061985@gmail.com

Introduction

Ethnomedicinal plants are used for the treatment of various human ailments and personal adornment is as old as human civilization. Ethnogaecology is a traditional approach that addresses women's health problems. Even after the induction of so many years of more medicine, about 80% of people in rural India take the help of local health practitioners or treatment of various diseases. This therapeutic knowledge might have been established by trial and error method, and in every period, the healing properties of certain medicinal plants are identified, note and conveyed to the successive generations (Abebe & Ayehu, 2000). At present about 65% of the India population is dependent on the traditional healers having a commendable knowledge of medicinal plants around them. Hence an ethnomedicinal survey was undertaken to document the traditional use of folk drug plants for the treatment of menstrual disorders, in women of Chitradurga district. Ethnic communities living in formidable agro-climatic situations and well acquainted with natural resources and their sustainable management from time immemorial. The use of plants as medicine antedates history. All most all civilization and culture have employed plants in the treatment of human sickness. The people collect the medicinal plants in the surrounding by which their traditional knowledge to treat some common diseases. The present survey was conducted to know about the traditional knowledge and practices of plants.

Aims of study

The main scope of the present study is to review the activity in some parts of Chitradurga district where medicinal plants are used in the treatment of gynaecological disorders in women by previous knowledge of local folk medicine. The traditional use of medicinal plants of the district has a very important meagre report in the literature.

Materials and methods

Study area

Chitradurga district is situated in the central part of Karnataka, covering an area of 3969 sq. km within 13°

34' to 15° 02' N latitude and 75° 37' to 77° 01' E longitudes. Chitradurga gets its name from Chitakal durga, an umbrella shaped lofted hill found here. The whole district is included in the valley of the river Vedavati. Eastern part of vedavathi, which include taluks of Challakere, Hiriyur and southern part of Molakalmuru. Central hilly forest zone, which includes taluks like Hosadurga, northern part of Molakalmuru. Chitradurga district has the red sandy soil in Molakalmuru taluk and Hiriyur taluks. The deep black soil is found in western portions of Challakere and Chitradurga taluks and some parts of Holalkere taluk. The red loamy soil in central portions of Chitradurga and Challakere taluks. The major portions of Hiriyur and Hosadurga taluks have red and black mixed soil. The taluks like Chitradurga, Hiriyur and Hosaura are surrounded by black soil in tri-junction of these taluks. The climate of the district is cold and dry during rainy season from June to September. The average annual rainfall is about 58cm, and annual average temperature is about 26° C. (Fig. 1).

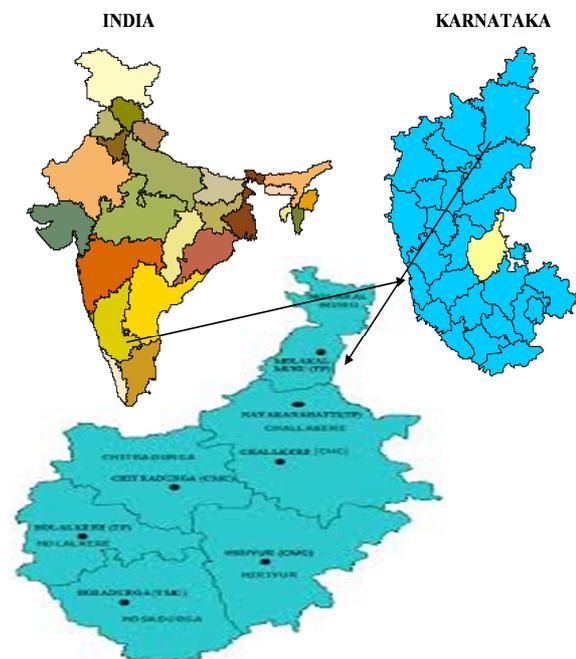


Fig. 1. Location Map of Chitradurga District showing the study area.

Area of Population

The total area of the district is about 8436 Sq.kms include six taluks, 22 hoblies and 189-gram panchayats. According to 2011 census there are 949

villages with habitation and 115 villages without habitation. The total population of the district is 16.1lakh in which 66% of people are belong to scheduled castes and scheduled tribes.

Procedure

The information was collected through the questionnaire with descriptive responses about the plant prescribed, part of the plant used, medicinal uses, mode of drug preparations likes, decoction, paste, powder, and tablet etc. The field survey was done by the collected information of plant materials, mounting, preparation and preservation of plants, in the laboratory and preparation herbarium.

The collected plant specimens were identified with the help of Flora, Flora of Davanagere by Manjunath, Flora of Karnataka by Saldanaha (1984), Flora of the presidency of Madras by Gamble, Flora of Kolhapur by SR Yadav. The identified plants were further authenticated by the experienced taxonomists who were available in our study area. The prepared herbariums are deposited in the department of applied Botany, Kuvempu University, Shivamogga for future reference.

Results

The present study is about field survey of different tribal villages of Chitradurga district during 2020-21. The survey was conducted about the information, uses regarding medicinal plant species for gynaecological disorders. A total of 50 ethnic practitioners were identified between the age group of 35 to 85 years for conducting the field survey.

During field work, interviews were conducted with local knowledgeable villagers, herbal healers. The gynaecological medicinal value of each plant was enumerated. About 29 plant species belonging to 29 genera and 25 families are used as medicine in the enumerated plants, botanical names, families, local names, parts used, diseases, methods of preparation are mentioned below.

Enumeration and utilization of plants

Achyranthes aspera Linn. (Amaranthaceae), Local name: *Utrani*, Habit: Herb, Parts used: Twig.

Therapeutic uses: The tender twigs of the plant make a juice made for the complicacy of labour.

Adhatoda vacica Nees. (Acanthaceae), Local name: *Adumuttada gida*, Habit: Shrub, Parts used: Root.

Therapeutic uses: Taken root is grind to make paste for leucorrhoea.

Adina cordifolia Benth & Hook. f. (Rubiaceae), Local name: *Arisina tega*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken bark and *Emblia officinalis* bark to make decoction and taken a glass of decoction orally.

Aegle marmelos (L.). (Rutaceae), Local name: *Bilvapatre mara*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken bark grind to make powder with root juice of *Oroylum indicum* and *Mangifera* is used for labour pain.

Amaranthus spinosus L. (Amaranthaceae), Local name: *Mullu harvi*, Habit: Herb, Parts used: Whole plant.

Therapeutic uses: Taken plant is grind to make paste while is used leucorrhoea.

Aristolochia indica L. (Aristolochiaceae), Local name: *Eshwariballi*, Habit: Climber, Parts used: Whole plant.

Therapeutic uses: Taken plant is grind to make a juice and taken orally.

Asparagus racemosus Wild. (Asparagaceae), Local Name: *Shatavari*, Habit: Herb, Parts used: Root.

Therapeutic uses: Taken root is soaked in a glass of water for one hour and taken orally in the morning before food.

Borassus flabellifer L. (Arecaceae), Local name: *Tale mara*, Habit: Tree, Parts used: Inflorescence.

Therapeutic uses: Taken inflorescence add with *black pepper* to make powder which is used as contraceptive and paste is used for prolonged menstrual cycle.

Boerhavia diffusa Linn. (Nyctaginaceae), Local Name: *Kommegida*, Habit: Herb, Parts used: Whole plant.

Therapeutic uses: Taken root part and mixed with little bit of oil of Til. Apply the preparation in the vagina to ensure for smooth delivery.

Bombax ceiba L. (Malvaceae), Local name: *Kempu buruga*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken stem bark is grind to make powder, which is used with water to increase labour pain and for easy delivery.

Borreria articularis (L.f.) Williams. (Rubiaceae), Local name: *Madanaganti*, Habit: Herb, Parts used: Root.

Therapeutic uses: For the regulation of excessive menstrual, the low root of the plant has to be paste with hot water which is taken by women, just before starting of menstrual disorder.

Butea monosperma (Lam.). (Fabaceae), Local name: *Muthuga mara*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken bark is grind and to make decoction, used to cure dysmenorrhoea and menstrual disorders.

Catharanthus roseus (L.) G. Don. (Apocynaceae), Local name: *Nithyapushpa*, Habit: Undershrub, Parts used: Leaves.

Therapeutic uses: Leaves are crushed to make juice, mixed with honey used to treat leucorrhoea and menorrhagia.

Centella asiatica (L.) rban (Apiaceae), Local name: *Ondelaga*, Habit: Herb, Parts used: Leaves.

Therapeutic uses: The leaves are taken crushed to make juice, mixed with water used for irregular menstruation disorders.

Citrullus colocynthus (Linn.). (Cucurbitaceae), Local Name: *Haramekkikayi*, Habit: Climber, Parts used: Root.

Therapeutic uses: Taken root is grind with water and apply to navel of the pregnant women.

Cynodon dactylon (L.). (Poaceae), Local name: *Garike*, Habit: Herb, Parts used: Leaves.

Therapeutic uses: Taken fresh leaves are made one tea spoon of leaf juice mixed with a half of tea spoon

of *sandalwood* paste given orally, to cure the menstrual disorders.

Diplocyclos palmatus Linn. (Cucurbitaceae), Local name: *Lingatodeballi*, Habit: Climber, Parts used: Seed.

Therapeutic uses: Taken root of *Sonth*, *Purtrajivi* and root bark is made as powder, 3-5 grams powder is taken with milk at night time. Once a day for 21 days. After the beginning of menstrual cycle.

Ficus racemosa Linn. (Moraceae), Local name: *Attimara*, Habit: Tree, Parts used: Fruit.

Therapeutic uses: Taken fresh fruit is mixed with honey has taken for two weeks for contraceptive.

Mangifera indica L. (Anacardiaceae), Local name: *Mavina mara*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Decoction of stem bark is used with *black pepper* to stop bleeding from uterus.

Michelia champaca L. (Mangnoliaceae), Local name: *Sampige mara*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken stem bark is dried and grind to make powder, to use with milk for irregular menstruation cycle.

Moringa oleifera Lam. (Moringaceae), Local name: *Nuggemara*, Habit: Tree, Parts used: Bark and Root.

Therapeutic uses: Taken root and bark is grind to make powder, which is used warm milk to induce abortion and menstruation cycle.

Nymphaea nouchali Burm.f. (Nymphaeaceae), Local name: *Naidile*, Habit: Herb, Parts used: Rhizome.

Therapeutic uses: Taken rhizome to make paste with honey which is used to regulate menstruation.

Ocimum sanctum L. (Lamiaceae), Local name: *Tulasi*, Habit: Undershrub, Parts used: Leaves.

Therapeutic uses: Taken fresh leaves are made juice and used with cow milk to relive pain after delivery.

Plumbago Zeylanica Linn. (Plumbaginaceae), Local name: *Chitramula*, Habit: Shrub, Parts used: Root.

Therapeutic uses: Taken root part is grind to make powder and mixed with honey to ensure for easy delivery.

Rauwolfia serprntina (Linn.). (Apocynaceae), Local name: *Sarpagandi*, Habit: Herb, Parts uses: Root.

Therapeutic uses: Taken root to make powder, 10gms of its preparation has to take to ensures easy delivery.

Terminalia arjuna (Roxb.) (Combretaceae), Local name: *Hole matti mara*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken dried stem bark is grind to make powder with honey and water, which is used for leucorrhoea and menorrhagia.

Tinospora cordifolia Wild. (Menispermaceae), Local name: *Amrutaballi*, Habit: Climber, Parts used: Leaves.

Therapeutic uses: Taken leaves are made to juice and taken orally.

Zingiber officinale Roscoe. (Zingiberaceae), Local name: *Shunthi*, Habit: Perennial herb, Parts used: Rhizome.

Therapeutic uses: Taken dried rhizome is grind to make powder with *piper longum* and mixed cow ghee to relieve pain and weakness after delivery.

Ziziphus mauritiana Lam. (Rhamnaceae), Local name: *Bore mara*, Habit: Tree, Parts used: Bark.

Therapeutic uses: Taken stem bark to make paste with water and used for abdominal pain during pregnancy.

Discussion

The ethnobotanical study revealed and considerable about the medicinal plants of Chitradurga district. The information was analysed on medicinal plants for treatment of various gynaecological disorders were collected from local people of the district. The enumeration and utilization of these are described above. The uses of medicinal plant species as remedies from ancient years. The medicinal preparations are practiced in the day to day life of tribal living in remote forest areas or villages. The uses of herbal medicines are widely spreader over the region with higher percentage the people in tribal as well as non-tribal population depend on here. This disorder is found in women because of lack of awareness, shyness and lock of modern medicinal facilities available in the region and also the high cost of medical system for treatment which is unaffordable by the tribal.

In Chitradurga district, detailed studies on ethnomedicine have not been conducted. The formulation and standardization of these effective Phyto-medicines should be encouraged for their sustainable uses. The plants are used either single on in combination with other plants. Some information about a particular remedy from different localities or groups of informs reflects the accuracy and authenticity of the medicines. However, the identification of these medicinal plants provides a platform from which further scientific assessment of these medicines on photochemistry, biological activity, and clinical studies could be formulated to determine the efficacy and safety of herbal preparations. This may provide a lead in the development of drugs to be used in the modern system of medicine.

Conclusion

Ethnomedicinal practice of tribal and non-tribal is related with human health. Ethnomedicine means the medical practices or the treatment of ethnic or aborigine people or their health care system. The present study focused on the utilization of plants available to the people of Chitradurga district. They are using the traditional knowledge of the treatment of gynaecological disorders. There is a need or systematic documentation of this knowledge by using scientific tools.

Acknowledgment

The authors sincere thanks to the tribal herbalists and very grateful to the people of Chitradurga district for sharing their knowledge of herbal medicine.

References

- Addo-Fordjour P, Anning AK, Ebenezer Jeremiah Durosimi Belfor EJD, Akonnor D.** Diversity and conservation of medicinal plants in the Bomma community of the Brong Ahafo region, Ghana. *J med plants Res* **2**, 226-233.
- Ali SJ, Dixit SN.** 1989. Folk herbal drugs of a sub-himalayan forest tract in eastern Uttar Pradesh. *Bio. J* **1**, 13-18.

- Chopra RN, Nayar SL.** 1956. Glossary Indian medicinal plants. Council of Scientific and Industrial Research, New Delhi, India.
- Chopra RN, Chopra IC, Verma BS.** 1969. Supplement to the glossary Indian medicinal plants. Council of Scientific and Industrial Research, New Delhi, India.
- Harihar NS, Kotresh K.** 2010. Wild medicinal plants of Kappat hills, Gadag district, Karnataka. Res. Rev. Biome. Biotech **1(2)**, 111-118.
- Harsha VH, Hebbar SS, Shripathi V, Hegde GR.** 2003. Ethno-medico-botany of Uttara Kannada district in Karnataka, India-plants in treatment of skin diseases. J. Ethnopharmacology **84**, 37-40.
- Hiremath VT, Taranath TC.** 2009. Ethnomedicinal plants of associated traditional knowledge of Jogimatti forest, Chitradurga district, Karnataka pp. 01-04.
- Hiremath VT, Vijaykumar MMJ, Taranath TC.** 2010. Survey on ethnomedicinal plants of Jogimatti forest Chitradurga district, Karnataka, India. Environ. We Int. J. Sci. Tech **5**, 223-233.
- Jain SK.** 1991. Dictionary of India Folk medicine and Ethnobotany, New Delhi.
- Kalita T, Deka K, Bharali S.** 2013. Ethno medicinal plants or gynaecological disorders used by the Bodo tribes of lower Assam, India. International Journal of Advanced Life Sciences **6(5)**, 521-526.
- Lakshmana, Sweth, Dwaranath V, Shravana Kumar.** 2018. Folklore Medicinal Plants of Challakere Taluk of Chitradurga District, Karnataka, India. International Journal of Life Sciences Research **6(4)**, Pp.185-193.
- Prakash HM, Krishnappa M.** 2006. Herbal folk medicine used again cardiovascular and dental problem in NR. Pura taluk, Karnataka, Ad. Plant Sci **19**, 203-208.
- Prakasha HM, Krishnappa M.** 2006. People's knowledge on medicinal plants in Sringeri taluk, Karnataka. Indian Journal of Traditional Knowledge **5(3)**, 353-357.
- Prashant Kumar GM, Shiddamallayya N.** 2016. Survey of wild medicinal plants of Hassan district, Karnataka. Journal of Medicinal Plants Studies **4(1)**, 91-102.
- Prashantkumar P, Vidyasagar GM.** 2005. Documentation of traditional knowledge on medicinal plants of Bidar district, Karnataka. Indian Journal of Traditional Knowledge **5(3)**, 295-299.
- Raju Kanti, Parashurama TR.** 2014. Ethnobotanical knowledge of health care in Hangal taluk of Haveri district, Karnataka. International Journal of Innovative Pharmaceutical Science and Research **2(10)**, 2344-2351.
- Ramachandra Naik M, Vaishnavi Venugopalan, Preethi Kumaravelayutham, Krishnamurthy YL.** 2012. Ethnoveterinary uses of medicinal plants among the Lambani community in Chitradurga district, Karnataka, India. Asian Pacific Journal of Tropical Biomedicine pp. S470-S476.
- Shidamallayya N, Rama Rao V, Dodamani SH, Venkateshwarlu G.** 2016. A glimpse on forest flora and India system of medicine plants of Chitradurga district, Karnataka. International Journal of Herbal Medicine **2(1)**, 25-33.
- Shivanna MB, Rajakumar N.** 2010. Ethno-medico-botanical knowledge of rural folk in Bhadravathi taluk of Shimoga district, Karnataka. Indian Journal of Traditional Knowledge **9(1)**, 158-162.
- Shivanna MB, Mangala KR, Parinitha Mahishi.** 2008. Ethno-medicinal knowledge of Lambani community in Chikmagalur district of Karnataka, India. J. Med. Arom. Pl. Sci **30**, 105-108.
- Shuka S, Mathur R, Prakash AO.** 1989. Biochemical alteration in the female genital tract of ovariectomised rats rereleased with an aqueous extract of *Moringa oleifera* Lam. Pakistan Journal of Scientific and Industrial Research **32(4)**, 273-277.

Sikarwar RLS. 1993. Ethnogynaecological uses of plants by tribal by MP. Vanyajati pp. 28-31.

Singh V, Pandey RP. 1996. Ethnomedicinal plants used for verbal and gynaecological diseases in Rajasthan (India). J. Tax. Bot **12**, 154-165.

Sugumara M, Bharathi V, Hemachaner R, Laskmi M. 2010. Ethnomedicinal plants for Indigestion in Uthiramerur taluk, Kancheepuram District, Tamil Nadu, India. Journal of Chemical and Pharmaceutical Research **2(6)**, 463-470.

Tarafdar CR. 1983. Ethnogynoecology in relation to plants part-I plants used for Antifertility and conception. J. Eco. Tax. Bot **4(2)**, 483-489.