ISSN (online): 2320-4257 www.biolifejournals.com

BIOLIFE

ORIGINAL ARTICLE

MEDICINAL PLANTS USED IN REPRODUCTIVE PROBLEMS OF KOLAMS OF ADILABAD DISTRICT, ANDHRA PRADESH

N. Ramakrishna¹ and Ch.Saidulu^{2,*}

¹Department of Botany, SAP College, Vikarabad, Ranga Reddy District, Andhra Pradesh.

E-mail: saidulu.chilumula@gmail.com

ABSTRACT

An attempt has been made to compile the ethnobotanical utilization of 24 species of medicinal plants related to women reproductive problems used by the Kolam healers belonging to 19 genera of 14 families of angiosperms. The total of 24 remedies were recorded under women reproductive problems. Kolams, Naikpods, Pardhans, Gonds, Thotis, Chenchus and Mathuras are the tribals belonging to Adilabad district. And the traditional knowledge regarding the use of these plants is widely applied to these ethnic groups. After comparative literature analysis, we have found some medicinal uses, which are quite interesting and additions to the existing Knowledge base. This plant species need attention on account of their restricted availability, their threatened status and ethnobotanical significance.

Key words: Ethnobotany, Kolams, Adilabad district, Andhra Pradesh.

INTRODUCTION

Since time immemorial human beings have been using plants for their survival and development. In the beginning they were food gatherers and hunters of food, but subsequently concentrated on plants that are useful for other purposes, such as for shelter, health care and artifact. The understanding of the use of plants for food, health care, shelter, agriculture and other purposes got accumulated over generations as traditional knowledge. This knowledge is transferred through orally from one generation to another.

People all over the world are still dependent on the traditional plant based healing practices as it is cheap and easily available. Rural people and tribal communities who live in the forest areas predominantly depend up on locally available medicinal plants to take care of their health and has become an integral part of their culture. Thus the accumulated diversified traditional knowledge has led to the dawn of a science called Ethnobotany.

Although significant amount of ethnobotacinal study in many other parts of Adilabad district has been conducted by various workers (Ravishankar, 1990, Sripriya, 2013 and Vinatha Naini, 2013) on "Ethnobotanical studies in Adilabad, Warangal and Karimnagar districts of Andhra Pradesh, India, Madhu (2010) submitted his thesis on "Ethnobotanical studies in Adilabad forest area medicinal plants and community". Dr. Koppula Hemadri (1994) Shastravettalanu published Akarshistunna girijana vaidyam. Swamy and NSNS (2008) reported some ethnomedicinal plants used by tribes in the Nirmal forest division, Adilabad District of Andhra Pradesh), in the Adilabad district, negligible amount of work has been carried out on the ethnobotanical documentation of plants used by the ethnic communities. So

^{2,*}Department of Botany, Osmania University, Hyderabad-500 007, Andhra Pradesh, India

far, only a few studies have been carried out on the Medicinal Plants used by the ethnic communities, In fact a large number of Medicinal uses of ethnic communities still await proper documentation. The present study deals with ethnic methods of "art of healing of Reproductive problems" practiced by Kolams of Adilabad district.

The Kolams are considered as most primitive tribal community of the district when compared to Gonds. Kolams are predominantly live in the interior zones of Chinnur, Tiryani and Siripur (u) People of Kolam reserve forest areas. community strongly believe in the effectiveness of their indigenous knowledge of herbal treatment, thus the use of herbal medicine is a first priority among the Kolams, they mostly depend on herbal medicine for their health care, hence they approach the local healers known as vaidyas or pujaris for herbal medicine who have huge knowledge on use of medicinal plants. Kolam healers provide medicine in free of cost; a few of them sell herbs in the local weekly markets to get cash for their livelihood.

Menorrohea and infertility problems are commonly found among the Kolam women. Kolam women healers have expertise in attending delivery cases and problems arising during deliveries and post delivery medication by using herbal medicine. These women healers play a vital role in handling child births, mother and child health care applications.

MATERIAL AND METHODS

Study area:

Adilabad district is one of the 23 districts of Andhra Pradesh and situated in the north western corner of the state. The district is situated between 77°.46′ and 80.01′, of the Eastern longitudes and 18°.40′ and 19°.56′, of Northern latitudes. The district is situated on the northern boundary of Andhra Pradesh, forming a border with the Yeotmal and Chanda districts of Maharashtra on the north, east and western borders, Nizamabad and Karimnagar districts of Andhra Pradesh on the south and west.

Adilabad is known for its significant forests and Aadivasi forest dwellers which include various tribal communities existing since centuries and has a strong social, historical and cultural back ground. The tribal community of Adilabad district includes primarily Kolams, Naikpods, Pardhans, Gonds, Thotis, Chenchus and Mathuras.

Methodology:

The Present study was conducted during 2011. Regular bimonthly visits were made to nearly 10 habitations belonging to Bellampalli, Chinnur, Ichoda, Jaipur, Jannaram, Kerimeri, Sirupur (u), Tiryani, Utnoor and Wankidi Mandals and the villages and habitations like Kolam gudems of Adilabad District. The ethnobotanical information was gathered through interviews and discussion with village headmen, locally well known herbal healers and poojaris belonging to Kolams tribal community of the district who are still practicing traditional medicine. Care was taken, however not to include second hand information without verification and to exclude exaggerated or 'cooked-up' information. Data were recorded on the plant parts used, local name, place of collection, process of preparation, mode of administration and dosage. Standard methods of botanical collection and techniques of herbarium preparations were followed as suggested by Jain and Rao (1977); Khanna and Mudgal (1992); K. Srivastava, 2013 Lingaiah, (2013). Plants have been collected in flowering and fruiting stages for the preparation of herbarium. Herbarium specimens identified and accessed as per the norms laid down.

The vouched specimens will be deposited in the Herbarium, Department of Botany, Osmania University, Hyderabad.

Observations were made of the plant species with respect to their location and other field characters. The plant specimens were identified using district, regional and state floras like Flora of Adilabad District by Pullaiah *et al.* (1992), Flora of the Presidency of Madras by Gamble (1921) and other relevant literature.

Treatments for ailments were given according to the diseases recorded. Local terminology of disease names which have been described by healers are noted along with English names in the annexure.

RESULTS

From interaction with various local informants of ethnic community, 24 species of plants were collected from the immediate vicinity of the community which uses them in a myriad of ways. Under enumeration, the recent botanical name, synonyms and family name was given. Under Vernacular names Sanskrit, English, Hindi and Telugu names were also given. Voucher specimen collection number, locality and plant description has been recorded for each species. The plant species have been arranged alphabetically. Photographs of plants of their parts collected during field work are presented to authenticate the information accrued.

Abortion:

- Cissus quadrangularis L. Family name: Vitaceae, Telugu: Nalleda, Nalleru, Nallakada. Tender and internodes, leaves are pickled and eaten.
- 2. Gloriosa superba L. Family name: Liliaceae Telugu: Konda Nabhi, Venkayya puvvu.10 g bulbs are pounded with same quantity of garlic and given along with one glass of goat milk in early pregnancy.
- Moringa concanensis Dalz. & Gibson.
 Family name: Moringaceae Telugu:
 Munaga. Stem bark is heated and kept on stomach of pregnant women for abortion.

Easy delivery:

1. Ampelocissus latifolia (Lam.) Planch. Family name: Vitaceae, Telugu: Puleteega, adavi draksha. 20 ml leaf juice is given orally for easy delivery.

Infertility:

1. Abrus precatorius L.(Fabaceae); Telugu: Gurivinda. 10 g of seed pulp is pounded along with 50 g jaggery and 50 g seeds of red gram to make 1gm size of pills, 1 pill are given internally for three days starting from

- fourth day of menstruation
- 2. Butea monosperma (Lam.) Taub. Family name: Fabaceae, Telugu: Moduga. 5 g inner bark extraction added to a cup of rice washed water with a pinch of zeera powder, two grains rice powder mix is given orally before breakfast for three days during menses period.
- 3. Capparis horrida L.f. Family name: Capparaceae, Telugu: Adonda. 50 ml of stem Bark juice, with sugar is given orally before breakfast, generally on menses period.
- 4. Cocculus hirsutus (L.) Diels. Family name: Menispermaceae, Telugu: Dussari thega. Leaves are ground adding water, extract is filtered through white cloth, Freshly prepared juice is given orally twice in a day particularly on menses days.
- 5. Wrightia tinctoria R.Br. Family name: Apocynaceae Telugu: Pala kodisha. 50ml stem bark juice of Wrightia tinctoria, and small quantity of inguva mix is given orally before breakfast during active menstrual period, for three days. (Avoidences: Brinjal and pumpkin).

Labor pains:

Cayratia pedata (Lam.) Gagnep. Family name: Vitaceae, Telugu: Erukala sani. Young leaves are pounded in one glass of water and the decoction is given orally in a single dose.

Leucorrhoea:

- 1. Abrus precatorius L.(Fabaceae); Telugu: Gurivinda. Grind handful leaves to make juice; 20 ml of this juice is given internally twice a day for 3 days.
- 2. Cassia auriculata L. Family name: Caesalpiniaceae, Telugu: Thangedu. Handful flowers are crushed and mixed with 100 ml of cow milk and given orally to treat white discharge.
- 3. Boswellia serratta Colebr. Family name: Burseraceae, Telugu: Andugu. Stem bark of Boswellia serrata, Shonti, pepper in 2:1:1 ratio are ground together and extracted juice is given orally (10 ml) as a drink, three doses, for three days. (Diet: jowar roti with zinger garlic mirch for 10 days).

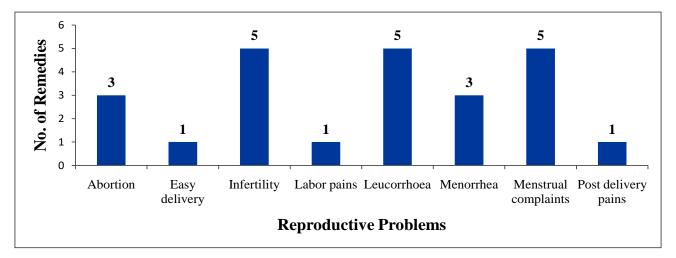


Figure-1. Treatments recorded under human reproductive ailments from Kolam healers

- 4. Ficus tinctoria Forst.f. Family name: Moraceae Telugu: Tella barnika. 20 ml stem bark juice is given orally before breakfast for three days. (Avoidences: Jaggery, brinjal, potato, pompkin, bottlegourd for a week) Bark is extracted before sun rise.
- 5. Prosopis Cineraria (L.) Druce. Family name: Mimosaceae: Telugu Jammi Chettu. 1 tea spoon root bark powder mixed with 100 ml of goat milk is given orally to cure White discharge.

Menorrhea:

- Butea monosperma (Lam.) Taub. Family name: Fabaceae, Telugu: Moduga.
 1/2 cup stem bark juice with a pinch of zera powder is given orally for five days, once in a day, before breakfast.
- 2. Cocculus hirsutus (L.) Diels. Family name: Menispermaceae, Telugu: Dussari thega. Handful leaves are ground to paste adding water, extract is filtered through white cloth, Freshly prepared juice is given orally twice in a day particularly on menses days.
- 3. Ficus glomerata Roxb. Family name: Moraceae. Telugu: Medi. Take 100 g dried stem bark powder add a spoonful of zeera powder, 100 g of mishri powder, mix well and a tea spoon of it is consumed twice in a day before meals (Avoidences: chicken, egg etc).

Menstrual complaints:

1. Cocculus hirsutus (L.) Diels. Family name: Menispermaceae, Telugu: Dussari thega

- Leaves are ground to paste adding water, extract is filtered through white cloth, 50 ml freshly prepared juice is given orally twice in a day particularly on menses days for maternal pain
- 2. Capparis horrida L.f. Family name: Capparaceae, Telugu: Adonda. 30 ml stem bark juice with sugar is taken orally before breakfast, generally on menses period.
- 3. Melia azedarach L. Family name: Meliacea, Telugu: Turaka Vepa. 20 ml decoction of the leaves is given orally to young girls to get relief from pain and discomfort during menstruation.
- 4. Oroxylum indicum (L) Vent. Family name: Bignoniaceae Telugu: Dundillum, Pampini. 2 spoons of stem bark decoction is given orally at night to regulate menstruation.
- 5. Pterocarpus marsupium Roxb. Family name: Fabaceae Telugu: Vegisa, Pedda Yegi. 50 ml stem bark decoction is given to teenager girls against menstrual complaints.

Post delivery pains:

1. Vitex negundo L. Family name: Verbinaceace Telugu: Vavili. Water boiled with young leaves is given for bathing to the women suffering from post delivery pains.

DISCUSSION

The Kolams are considered as most primitive tribal community of the district. Kolams are predominantly live in the interior zones of Chinnur, Tiryani and Siripur (u) reserve forest areas. People of Kolam community strongly believe in the effectiveness of their indigenous knowledge of herbal treatment, thus the use of herbal medicine is a first priority among the Kolams, they mostly depend on herbal medicine for their health care, hence they approach the local healers known as vaidyas or poojaris for herbal medicine who have huge knowledge on use of medicinal plants. Kolam healers provide medicine in free of cost; a few of them sell herbs in the local weekly markets to get cash for their livelihood.

The author has interviewed 13 Kolam healers, 24 reproductive problems (5 remedies for Leucorrhoea, 5 for infertility, 5 for menstrual problems, 3 for abortion, 3 for menorrhea, 1 remedy each were recorded for post delivery pains, labour pains and easy delivery),

Menorrohea and infertility problems are commonly found among the Kolam women. Kolam women healers have expertise in attending delivery cases and problems arising during deliveries and post delivery medication by using herbal medicine. These women healers play a vital role in handling child births, mother and child health care applications.

REFERENCES

- 1. **Anonymous,** 1948-1976. *Wealth of India,* Vols I-XI. Council of Scientific and Industrial Research, New Delthi.
- 2. **Arora, R.K.** 1995. Ethnobotanical studies on plant genetic resources National efforts and concern. *Ethnobotany* 7: 125-136.
- 3. **De, J.N.** 1968. Ethnobotany a new science in India. *Science & Culture* 34: 326-328.
- Fransworth, N.R., Loud, W.D., Soejarto, D.D., Cordell, G.A., Quinn, M.L. & Mulholland, K. 1981. Computer service for researth on plants for fertility regulation. Korean Journal of Pharmacognosy 12: 98-110.
- 5. **Furer-Haimendorf, C. von** 1943. *The Chenchus*. MacMillan and Co, London.
- 6. **Gamble, J.S. & C. E. C. Fischer.** (1915-1936) Flora presidency of Madras,

- (Repr.ed.1957. Calcutta). Moresdale, London.
- 7. **Hemadri, K**. 1979. *Andhra Pradesh lo Mandumokkalu*. Telugu Akademi, Hyderabad. (in Telugu).
- 8. **Hemadri, K.** 1990. Contribution to the medicinal flora of Karimnagar and Warangal districts, Andhra Pradesh. *Indian Medicine* 2: 16-28.
- 9. **Hemadri, K.** 1994. *Shastravettalanu Akarshistunna Girijana Vaidyam* (Tribal Pharmacopoeia). Tribal Cultural Research and Training Institute, Hyderabad. (in Telugu).
- 10. **Jain, S.K (Assisted by S. Srinivasa)** 1999. Dictionary of Ethnoveterinary Plants of India. Deep Publications, New Delhi.
- 11. **Jain, S.K.** 1991. Dictionary of Indian Folk Medicine and Ethnobotany. Deep Publications, New Delhi.
- 12. **Kapoor**, **S.L. & L.D. Kapoor** 1980. Medicinal plant wealth of the Karimnagar district of Andhra Pradesh. *Bull. Medico-Ethnobot. Res.*1: 120-144.
- 13. **K. Srivastava and V.B. Upadhyay**. 2013. Effect of phytoecdysteroid on fecundity of multivoltine mulberry silkworm *bombyx mori* linn. Biolife. 1(2):-78-83.
- 14. **Lingaiah M and Nagaraja Rao P**. 2013. An ethnobotanical survey of medicinal plants used by traditional healers of Adilabad district, Andhra Pradesh, India. Biolife. 1(1):17-23.
- 15. **Mubeen.** 2004-2005. Prepared an inventory of important medicinal plants of Adilabad district of Andhra Pradesh.
- 16. **Padmarao, P. & P. R. Reddy** 1999. A note on folk treatment of bone fractures in Ranga Reddy district, Andhra Pradesh. *Ethnobotany* 11: 107-108.
- 17. **Pullaiah, T., P.V.Prasanna, G. Obulesu,** 1992. Flora of Adilabad district, Andra Pradesh, CBS Publishers & Distributors, 485, Jain Bhawan, Bhola Nath Nagar, Shahdara, Delhi-110 032 (India).
- 18. **Rajeshwar Y and Lalitha R.** 2013. Preliminary phytochemical screening and in vitro anthelmintic effects of *Acmella paniculata* plant extracts. Biolife. 1(3):-106-112.

- 19. **Rao, P.P. & Reddy, P.R.** 2000. Ethnomedicinal survey on plant drugs for cattle from Ranga Reddy district, Andhra Pradesh. *Journal of the Swamy Botanical Club* **17**: 39-40.
- 20. **Rao, R.R.** 1996. Traditional knowledge and sustainable development: Key role of ethnobiologists. *Ethnobotany* **8:** 14-24.
- 21. **Ravishankar, T. & A.N. Henry** 1992. Ethnobotany of Adilabad district, Andhra Pradesh, India. *Ethnobotany* 4: 45-52.
- 22. **Ravishankar. T.** 1990. Ethnobotanical studies in Adilabad and Karimnagar districts of Andhra Pradesh, India. Ph.D. thesis, Bharathiar University, Coimbatore.
- 23. **Reddy, K.N., C.S. Reddy & V.S. Raju** 2002. Ethnobotanical observation on some Orchids of Andhra Pradesh. *J. Non-Timber Forest Products* 9 (3/4): 146-147.
- 24. **Reddy, P.R. & Rao, P.P. 2002.** A survey of plant crude drugs in the folklore from Ranga Redd district, Andhra Pradesh, India. *Indian Journal of Traditional Knowledge* **1**(1): 20-25.
- 25. **Reddy, P.R., Rao, P.P. & Prabhakar, M.** 2003. Ethnomedicinal practices amongst Chenchus of Nagarjunasagar-Srisailam Tiger Reserve (NSTR), Andhra Pradesh Plant Medicines for cuts, wounds and boils. *Ethnobotany* **15**: 67-70.
- 26. **Sripriya. D**. 2013. Preliminary phytochemical screening and antibacterial activity of *vitex leucoxylon*. (1.) (leaf) against various bacterial species. Biolife. 1(1):5-10.
- 27. **Swamy, and NSNS.,** 2008. Reported some ethnomedicinal plants used by tribes in the Nirmal forest division Adilabad District of Andhra Pradesh.
- 28. **Veadavthy, S. & V. Mrudala** 1996. Herbal folk medicine of Yanadis of Andhra Pradesh. *Ethnobotany* 8: 109-111.
- 29. **Vinatha Naini and Estari Mamidala**. 2013. An ethnobotanical study of plants used for the treatment of diabetes in the Warangal district, Andhra Pradesh, India. Biolife. 1(1):-24-28
- 30. Walker, A.L. & Brandley, H. 1838. *In:* M.S. Khan, *Forest Flora of Hyderabad State*, 1953. Government Press, Hyderabad.

- 31. **Walker, A.L.** 1849. Statistical report on the Circar of Warangal (Hyderabad, Deccan). *Madras Journal of Leterature & Science* **15**: 219-301.
- 32. **Warren, D.M.** 1991. Using indigenous knowledge in agricultural development. *World Bank Discussion Papers*. The World Bank, Washington, D.C.

DOI:https://dx.doi.org/10.5281/zenodo.7197

Received: 6 January 2014; Accepted; 23 February 2014; Available online: 7 March 2014