

A Case study of medicinal plants used by local women for gynecological disorders in Karaikal (U.T. of Puducherry)

Manisha Shukla¹, Y. Rashiya Begum² and Manoj Mishra³

^{1,2} P. G. Dept. of Plant Science, Avvaiyar Govt. College For Women, Karaikal, India.

³ EGS PEC, Nagapattinam, Tamilnadu, India.

Abstract

Indigenous knowledge is a potential tool in searching for new economic plants for uses of medicinal plants for various purposes. The present paper deals with the indigenous medicinal plants used by the local women of karaikal district. The rural women depend on the herbal medicines for curing various gynecological disorders. They do not approach the physicians due to lack of awareness, shyness or hesitation. Therefore a survey was conducted on medicinal plant species used to manage gynecological disorders at karaikal. The present work is based on the results of observations and semi-structured interviews conducted on traditional uses of some plants by the local women. The locals especially women of the area have been using the medicinal plants for many day to day uses for various ailments and are dependent on the plants in their surroundings for food, health, medication and various cultural purposes. A total of 44 important plants belonging to 27 families were recorded which were used medicinally and various other purposes by the local women. People have strong faith in herbal medication and women are leading the men in applying the recipe for medication by these plants. About 125 informants were interviewed in this regard.

Keywords: Gynecological disorders, traditional uses, herbal medicine

INTRODUCTION

Products from natural source are an integral part of human health care system because there are major concerns about synthetic drugs owing to their side effects and toxicity, the present study is an attempt to investigate the medicinal plants used for gynecological disorders by local women of karaikal. Each and every part of the country has its own cultural, spiritual and socio-economical tradition [1-3]. Karaikal belongs to the Union territory of India and is highly influenced by the *Tamilian* as well as French culture. Hindu, Muslim and Christians are the main communities residing here but as for as use of plants as medicine is concerned there is not a great difference, all the communities are using almost similar plant species for their ailments [4]. The difference is visible in spiritually, Hindus are worshiping plants as the representative of god but this tradition is not common in Muslim and Christian communities, they are using them only as the part of nature. Traditional remedies are part of culture and religious life of human.

Plant Kingdom is a blessing as well as a boon from God to living beings on this planet. Primitive men got much enthusiasm towards green plants and started to examine the properties of useful plants [5]. Later, he became enriched with the knowledge of many useful and harmful plants.

A wide range of herbal traditional medicines are used to

regulate the menstrual cycle, enhance fertility as either abortifacients or anti abortifacients. Plants and plant based medicines are the basis of many of the modern pharmaceuticals we use today for our various ailments [6], and Nearly 80% of the world population relies on traditional medicines for primary health care, most of which involve the use of plant extracts [7]. In India, almost 95% of the prescriptions are plant based medicinal systems i.e. Ayurveda, Homeopathy, Unani and Siddha [8].

MATERIAL AND METHODS

The present paper is the out come of field survey of different parts of karaikal district, during 2010-2011 to collect information's on medicinal uses of different plant species for gynecological disorders. About 150 houses around the area were visited and interviews of about 125 local informants especially women, old knowledgeable women, herbal healers were made. Ethno botanical information (medicinal plants and their uses) was gathered from the site by using a semi structured questionnaire containing questions in their own language (Tamil) [9-11] Voucher specimens of ethno medicinal plants were collected [12-15]. Repeated queries were made to get the information confirmed. The gynecological medicinal value of each plant was enumerated in the following patterns; A. Botanical name B. family, C. local name D. parts used & uses.

RESULTS AND DISCUSSION

In the present study 43 plants belonging to 29 families were collected and documented (Table 1), used by the local women for their various ailments; this was a preliminary study. Further investigation to collect more information is necessary.

The traditional knowledge of indigenous uses of medicinal plants before their exodus into the urban areas to join the main

Received: March 10, 2012; Revised: April 15, 2012; Accepted: May 25, 2012.

*Corresponding Author

Manisha Shukla
P. G. Dept. of Plant Science, Avvaiyar Govt. College For Women, Karaikal, India.

Tel: +91-9976474525; Fax: +91-4368 222454
Email: drmk1969@rediffmail.com

stream life needs to be studied and documented. Indigenous knowledge is as old as human civilization. In fact, medicine and botany has had close ties. The origin of traditional knowledge is deep rooted in local people age old experimentation [16, 17]. It is local knowledge, unique to a given society, the importance of which cannot be neglected. One of the significant features of local health practices is that they use locally available and readily accessible resources [18, 19]. These traditions are alive as household practices. Efforts should be made to locate, document and disseminate traditional knowledge so that it becomes a part of development [20]. Whatever traditional facilities are available in the respective rural areas and are still functioning, efforts should be made to rehabilitate and strengthen them. Every social system has a rich store house of knowledge based on the sound beliefs, norms and culture [21]. Rural people also have their own system of managing traditional knowledge which they have acquired from their age old experiences. These can be the valuable resources for managing health, as they are being used from generation, acceptable to rural families, environmentally sound and cost effective. Thus there is an urgent need to safeguard and reaffirm the traditional knowledge by documenting them to amplify and accelerate research planning and development [22]. Traditional knowledge can be harnessed by exploring these practices and reasons there of so that they could be significantly validated to

generate the location specific technologies sound in health perspective [10]. Traditionally the rural women prefer plant medicines rather than modern medicine for their personal ailments like puberty related problems, abortion, menstrual disorders, conception disorders, sterility, delivery problems, lactation etc. Some ethno medicinal observations made from the rural areas of Karaikal revealed valuable phytotherapeutic information's on the various gynecological disorders. Documentation of such ethno medicinal data on biological resources will be steps for bio-prospecting. Hence an attempt is made to explore the richness of local health tradition in Karaikal, so that suitable health practices in various aspects of health, among rural women could be identified and encouraged for scientific validation.

From the present study it is clear that local women are very much aware of their health and hygiene, they are using 5 plants for normal delivery and delivery related problems, as contraceptives 6 plant species are known, to improve lactation in feeding mothers 5 species are commonly used, for abortion 3 species, for menstrual disorders 6, for constipation relief 9 sps, to get permanent sterility only one plant (*Ricinus communis*) and to improve fertility one species (*Ficus religiosa*) is known and others as uterine tonic, in leucorrhoea, blood purification, fever etc.

Table 1.

S.No	Botanical Name	Family	Common Name	Tamil Name	Parts Used & Uses
1	<i>Hydrophilla</i>	Acanthaceae	Kulikhara	Nir mulli	Root: Root powder for easy delivery
2	<i>Daucus carota</i> Linn. var. <i>sativa</i>	Apiaceae	Carrot	Carrot	Root juice to increase lactation in feeding mother. Seed decoction taken daily early in the morning in the empty stomach for five days to abort one month pregnancy. The extract of root drinking early in the morning to regulate menstrual disorder.
3	<i>Coriandrum sativum</i> Linn.	Apiaceae	Coriander	Kottamalli	The leaves are acrid astringent, aromatic, anti-inflammatory, carminative, constipation, jaundice. The fruits are aromatic, emollient and cure stomachic, constipation, scrofula, helminthiasis, intermittent fevers, gout and giddiness.
4	<i>Cuminum cyminum</i> Linn.	Apiaceae	Cumin	Jirakam	The fruit are acrid used as to cure constipation, stomachic, diuretic, uterine and tonic is useful to haemorrhoids, leucorrhoea, gonorrhoea.
5	<i>Anethum graveolence</i> Linn.	Apiaceae	Dill, Garden Dill.	Satakuppi	The fruit are acrid, st. They are useful for amenorrhoea, dysmenorrhoea.
6	<i>Elephantopus scaber</i> Linn.	Asteraceae	Prickly leaved elephants foot	Yanaicuvati	The root decoction and leaves are given in dysuria, urethrorrhoea, the root decoction is used for haemorrhoids and paste made out of leaves is very useful for skin disease.
7	<i>Achyranthes aspera</i> L.	Amaranthaceae	Prickly chaff flora hindi Latjira	Nayurvi	Root: powder is given once a day to women for easy delivery and seed powder with water thrice a day to cure the dysentery.
8	<i>Catharanthus roseus</i> Linn. G. Don	Apocynaceae	Madagascar, periwinkle	Sudukattu mallikai	Leaves: An infusion of the leaves considered for the treatment of menorrhage.
9	<i>Rowlfia serpentina</i> (L) Benth ex Kurz	Apocynaceae	Sarpagandhi	Chevanamal Podi	Root: It is used as uterine contraction and promotes the expulsion of the fetus.
10	<i>Ananas comosus</i> Linn. Merrill	Bromeliaceae	Pineapple	Anasi	Fruit: The fruit as unripe and sour in taste it is directly used as uterine tonic. They are useful in vitiated condition of sexual transmitted disease, amenorrhoea.
11	<i>Commiphora wightii</i> (Am.) Bhandari	Buraceae	Hill Mango	Kiluvai	Leaves: The decoction of leaf used for white discharge
12	<i>Carica papaya</i> Linn.	Caricaceae	Papaya	Pappali	Fruits are used directly in severe constipation and urinary tract infection, fruit eaten for abortion directly, raw fruit as vegetables are used to improve lactation in feeding mother. Latex: The latex is used as galactagogue tonic.
13	<i>Saraca asoca</i> (Roxb.) de Wilde	Cesalpiniaceae	Ashok	Asogam	The bark is bitter used to cure constipation. It is useful in menorrhage the flower decoction is considered to be a uterine tonic.
14	<i>Bauhinia variegata</i> , Linn	Cesalpiniaceae	Orchid yellow	Singappu matharai	Bud about 4-5 buds grinded and give with water twice a day to women for enhancing lactation of feeding mother
15	<i>Ricinus communis</i> L.	Euphorbiaceae	Castor	Ammanaku	Leaves are lactagogue and applied as poultice over the breast and taken internally in the form of juice. It is also used for contraceptives. Seed: The cotyledons of one seed taken early in empty stomach from 5th day of menstruation for 25 days to produce sterility
	<i>Phyllanthus embellica</i>	Euphorbiaceae	Goose Berry	Nelli	Dry fruit with sugar once a day with the cow milk for one month to

16	L.				cure leucorrhoea. The fresh juices is given to renal disease ,such as primary incontinence
17	<i>Desmodium triquetrum</i>	Fabaceae	Sakuli	Sakarai vallikilangu	Young leaf with inflorescence are eaten as vegetable for regulate menstrual disorders the
18	<i>Clitoria tematea Linn.</i>	Fabaceae	Clitoria	Sangu poo	Blue pea flower can be used to arrest uterine haemorrhage
19	<i>Cajanus cajan Linn millsp</i>	Fabaceae	Cajanus indicus sprung	Tvarai	Leaves and seed when applied as a poultice over the breast may induce lactation
20	<i>Abarus precatorius Linn.</i>	Fabaceae	Jequirity(ratti)	Kuntumani	After some processing they are used as contraceptives, root paste is used to cure gonorrhoea.
21	<i>Trigonella foenumgraceUM L.</i>	Fabaceae	Fenugreek	Ventayam	Seed are bitter used as galactogue, pain killer.
22.	<i>Ocimum sanctum L.</i>	Lamiaceae	Tulsi	Tulasi	Seeds demulcent used in genital urinary disorder, leaves decoction used for haemorrhage
23	<i>Pongamia pinnata L.</i>	Leguminaceae		Pongai	Root paste used for local application in scrophulus enlargement
24	<i>Allium sativum L.</i>	Liliaceae	Garlic	Pondu	Bulbs decoction is used after delivery for galactogoue
25	<i>Asparagus racemosus willd</i>	Liliaceae	Wild asparagus	Kilavari	Roots are used as tonic for constipation ,galactagogue, stomachin, antispasmodic ,useful in urine ,throat infection ,gonorrhoea leucorrhoea ,haemorrhoides ,abortion, agalactia and general debility
26	<i>Aloe barbedensis Mill</i>	Liliaceae	Aloe	Kattalai	Leaf juice is used in dyspepsia, amenorrhoea, burns colic ,skin diseases constipation ,vitiated condition of vat, kapha pitta , abdominal tumors
27	<i>Lawsonia inermis L.</i>	Lythraceae	Henna	Mardani	Leaf juice mixed with water and sugar given as a remedy for heat control, cooling, headache relief
28	<i>Michelia champaca Linn.</i>	Mangnoliaceae	Champak	Senbagam maram	One flower bud consumed orally by women with water after menstruation for a week to avoid pregnancy, bark and root are used as contraceptives.
29	<i>Hibiscus rosa sinesis Linn</i>	Malvaceae	Horse shoe flower	Sembaruti	Fried flowers, and root powder menorrhagia, fresh root juice for gonorrhoea
30	<i>Thespesia populnea(L) SEHRAD EX CORREAE</i>	Malvaceae	Ganga ravi	Puvarasam kallal	Bark oil and capsule is useful in urethritis and gonorrhoea
31	<i>Melia azadiracta L.</i>	Meliaceae	Neem	Kattu vembu	As antiseptic ,pain killer, leaf decoction to delay pregnancy, and skin diseases
32	<i>Mimosa pudica Linn.</i>	Mimoseae	Touch me not	Thottachinugi	Leaf juice after delivery to avoid pregnancy, leaf juice with black pepper twice a day to control fever after child birth.
33	<i>Moringa pterygosper mw (Retz)Roxb .</i>	Moringaceae	Drunstick tree	Murngai	Leaf decoction is used before delivery, for constipation, fruit and seed decoction to cure sexual weakness ,powdered root and extract of root kept in vagina for abortion
34	<i>Ficus religiosa Linn</i>	Moraceae	Peepal	Arasu	Fruit kheer one teaspoon thrice a day for a week to sessile women for bearing child
35	<i>Syzyium cumin (Linn)skeels</i>	Myrtaceae	Black plum	Naaaval pazham	One teaspoon of dried powder of bark with cow milk twice a day for a week to cure leucorrhoea.
36	<i>Piper beetal</i>	Peperaceae	Betal	Vettilai	Leaf tea gives relief from perspiration and menstrual odor
37	<i>Bambusa arundinaceae (Retz.)willd</i>	Poaceae	Bamboo	Mungil	Grinded bud decoction after delivery to prevent pregnancy
38	<i>Vetiveria zizanoides (Linn)</i>	Poaceae	Vetiver, khus	Vettiver	Roots are used to cure constipation and hemorrhage, fruits boiled with jaggary once a day for 2-3 days to regulate menstruation
39	<i>Punica granatum Linn</i>	Punicaceae	Pomegranate	Maduli	Fresh flowers with sugar twice a day with water for 2-3 days to cure leucorrhoea.
40	<i>Ziziphus maurtiana Lam.</i>	Rhamnaceae	Indian jujube	Illantai	Bark powder for constipation, fruits for blood purification and used as tonic
41	<i>Santalum album L.</i>	Santalaceae	Sandal wood	Chandanam	Wood decoction with ginger is beneficial in haemorrhoids
42	<i>Zinziber officinale Ros.</i>	Zizingiberaceae	Ginger	Inchi	Rhizome ,raw as well as dried to cure constipation ,cough cold, to cure morning sickness of pregnant ladies ,pain killer
43.	<i>Curcuma domestica valeton</i>	Zinziberaceae	Turmeric	Munjai	Rhizome powder is used as Antiseptic, pain killer, blood purifier

REFERENCES

- Ahmed, S. 1995. "Neem in Socio cultural life in south Asia". The Neem Tree VCH, Weinhem, Germany, 3: 579 – 584.
- Aumeeruddy, 1996. The relationship between a given society and its environment and in particular the plant world.
- Amirthalingam, M. 1998. "Tulsi – A scared Plant" . *Kisam World*. 25:45.
- Anna, K. 1993. An Illustrated Guide to Herbs, their medicine and Magic, pp. 35-45. USA.
- Amia Tirkey, S., S. Khan and F. Khan. 2004. Ethno medicinally important plants used in treatment of Skin affections by the tribal's of chhattisgarh of Madhya Pradesh. In : Knan, Iran Ali Atiya knanum (Eds.) Ethno medicine and Human welfare Ukaaz publications ; Hyderabad, India. pp.70-89
- Ayyannar, M. and S. Ignacimuthi. 2005. Medicinal plants used by the tribal's of Tirunelveli Hills, Tamil Nadu to treat poisonous bites and Skin diseases. *Indian J. Trad. Knowl.* 4:

- 229-236.
- [7]. Begum, D. and S.C. Nath. 2000. Ethnobotanical review of medicinal plants used for skin disease and related problems in North Eastern India. I. *Herbs Spices & Medicinal Plants*. 7: 55-93.
- [8]. Chopra R. N., S. L. Nayar and I. C. Chopra 1956. Glossary of Indian Medicine plants CSIR. New Delhi Cunningham pp.2001.
- [9]. Dhanukar, S. A., R. A. Kulkarni and N. N. Rege. 2000. Pharmacology of medicinal plants and natural products. *Indian Journal of pharmacology*. 32: 88:118.
- [10]. Dutta, Choudhury, M. and S. Singh. 2008. Additional medicinal uses of some known medicinal plants India Pleione. *Eastern Himalayan Society for spermatophyte Taxonomy*. 2: 3-78.
- [11]. Duke. J. A. 1990. Promising Phytomedicines; in Janrick. J. & J.E SIMPSON (eds). *Advances in & new crops*, Timber Press, Portland.
- [12]. Gadgil, M.1996. Documenting diversity: An experiment. *Curr. Sci*. 70:36-44.
- [13]. Gupta, S.K.1979. Apocynaceous plants and their medicinal importance. *J. Res. Ind. Med.* 14 : 140-142.
- [14]. Jain S.K. & Mudghal V.K. 1999. A hand book of field herbarium methods. Today and Tomorrow Publishers.
- [15]. Jain, S.K. 1991. Dictionary of India folk medicine and ethno biology Deep. Publications, New Delhi.
- [16]. Jain, S.P, 2003. An inventory of threatened medicinal and aromatic plants of North western India. *J. Econ. Taxon. Bot.* 27 : 908-913.
- [17]. Jain, S.P, J. Singh & S.C. Singh 2003. Rare and Endangered medicinal and aromatic. Plants of Madhya Pradesh. *J. Econ. Taxon : Box 27*: 925-932.
- [18]. Keshavamurthy, K.R. and S.N. Yoganarasimhan. 1994. Medicinal plants of Karnataka Graphic Typesetters.
- [19]. Kirtikar, K.R. & B.D. Basu. 1935. Indian Medicinal plants, Vols I – IV. Lalit Mohan Balu. Allahabad.
- [20]. Mishra, O.P & S.M.A Naguvi 1995. Ethno medico Botany from tribes of Madhya Pradesh. *Bull. Med. Eth- Bot. Res.* 16 :17-26
- [21]. Naranjo, P.1995. The urgent need for the study of medicinal plants. In Schultes, R.E & S. Reis (eds). *Ethno botany Evolution of a Discipline*, Chapman and Hall, Landon, U.K.
- [22]. Schultes, R.E.1962. The role of Ethno botanist in the search of new medicine plants *Lloydia* 25: 257 – 266.