Research Article

New traditional phytotherapy for gynecological disorders among the tribes of Visakhapatnam District, Andhra Pradesh, India

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Abstract

The present study highlights the medicinal plants used for treating gynecological disorders by the tribal communities in Visakhapatnam district, Andhra Pradesh. This paper enumerates the traditional uses of 38 plant species belonging to 37 genera under 29 families used to cure women problems. Three new medicinal plants and 54 new practices were also reported.

Key words: Gynecological disorders, Visakhapatnam district, Andhra Pradesh.

Introduction

An ethnobotanical emphasis was laid on different tribal communities concentrated in the agency tracts of Visakhapatnam district of Andhra Pradesh. It lies between 17º-34’ 11”and 18º-32’ 57” N latitude and 81º-51’ 49”and 83º-16’ 9” E longitude. It consists of 11 mandals and occupies an area of 6,298 Km². It has a rich biodiversity due to variations in altitude from 900-1200m and tropical climatic conditions. It consists of 11 major tribal communities, namely Bagata, Gadaba, Gouda, Kammara, Konda Dora, Khonds, Kotia, Mali, Muka Dora, Porja and Valmiki constituting 14.55% (5,57,572) of the total population of the district (38,32,336). The district occupies second position in tribal population of Andhra Pradesh. The tribes have their own culture, tradition and system of treatment for ailments with a practical and applied aspect of knowledge acquired through close observation of nature. They are the treasure house of indigenous knowledge, which is yet to be tapped. Tribal People of the district mostly depend upon forest plants. They use many plants in their day to day life.

Although some ethnobotanical work relating to this area has been already carried out, the ethnobotanical knowledge and practices on
medicinal plants particularly for women diseases were not comprehensively documented [1,2] The survey of literature revealed that there are a few studies on ethno botany of women diseases in different parts of India [3-10]. In this paper an attempt has been made to enumerate the species which are used by local women to cure gynecological disorders.

Methodology

Field trips were conducted during 2009-11, especially with the local women and medicine men. Generally tribe, who knows about the herbal medicine, does not want to give all the information because they believe that when the medicinal plant is disclosed its medicinal properties will be lost. The people, who can provide information about medicinal plants, were consulted. For authenticity about medicinal properties of plants, the information collected during fieldwork was verified at different places through different informants and in different seasons. Each of the plant species collected with the help of the informants has been recorded, photographed and identified. The voucher specimens are deposited in the Herbarium of Department of Botany, Mrs. A.V.N. College, Visakhapatnam.

ENUMERATION

*Achyrantes aspera* Linn.  
**Family-Amaranthaceae**

VN: Duchheru  S: Apamarga H: Chirchitta  E: Prickly chaff flower

*LEUCORRHOEA: About 2 spoons of root juice mixed with half glass of fresh milk and administered daily for 3 days with empty stomach in the morning.*

*MENORRHAGIA: About 2-4 spoons of leaf juice is mixed with half glass of buttermilk administered daily.*

*Acacia nilotica* (Linn.) Willd.  
**Family-Mimosaceae**

VN: Nalla thumma  S: Babbuka H: Babul  E: Black babul

*LEUCORROHEA: Stem bark gum used as external vaginal application from the sixth day of menses for 3 days at bed time only.*

*MENUSTRUAL DISORDERS: Quarter cup of young leaf juice administered once a day for three days.*

*Aerva lanata* (Linn.) Juss.  
**Family-Amaranthaceae**

VN: Konda pindi  S: Astmabayota H: Chaya

*LEUCORROHEA: Four spoons of whole plant juice mixed with a pinch of camphor is administered daily twice for 5 days.**

*Allium sativum* Linn.  
**Family-Liliaceae**

VN: Tella gadda  S: Lasunah H: Lasun  E: Garlic

*POST PARTUM PROBLEMS: Twenty g of root is boiled and made into paste. Paste is administered twice a day after food for 2 days to get relief from abdominal pain.*
**Aloe vera (Linn.) Burm. f.**  
*Family-Liliaceae*  
VN: Kalabandha S: Kumari H: Ghikuamr E: Common Indian aloe  
*AMENORRHOEA*: Two spoons of leaf juice is taken twice a day for a week.

**Argyreia nervosa (Burm. f.) Boj.**  
*Family- Convolvulaceae*  
VN: Samudra paala S: Samudra palak H: Samandarka-pat E: Elephant creeper  
*POST-PARTUM PROBLEMS*: Root paste mixed with half tea glass of water is administered twice a day for 3 days.

**Aristida funiculata** Trin. & Ru.pr.  
*Family-Poaceae*  
VN: Puthika gaddi  
*POST-PARTUM PROBLEMS*: Root boiled and cooked by adding garlic, castor oil and eaten with Panicum sumattrance rice daily once and root ground and massaged with Pongamia pinnata oil reduces burns and pains in the foot.

**Cassia fistula** Linn.  
*Family-Caesalpiniaceae*  
VN: Rela S: Araguadha H: Amaltas E: Indian laburnum  
*LEUCORRHOEA*: Equal quantities of flowers with that of Butea monosperma boiled in one litre of water to get half litre of decoction. Twenty ml of decoction mixed with that of water and administered twice a day.

**Cassia occidentalis** Linn.  
*Family- Caesalpiniaceae*  
VN: Tentapu S: Kasamardah H: Kasondi E: Negro coffee  
*FERTILITY*: Handful of leaves along with 2 g of long pepper seeds are ground with water and the juice is filtered and taken with cow's milk early in the morning from the first day of menses for week. It is continued for 3 months.

**Clitoria ternatea** Linn.  
*Family-Fabaceae*  
VN: Sanku pushpamu S: Aparijita H: Aparjit E: Butter fly pea  
*MENSTRUAL DISORDERS*: Half tea glass root decoction is administered for regular menstruation.

**Costus speciosus** (Koen.) Sm.  
*Family-Zingiberaceae*  
VN: Bokacchika S: Canda H: Kebu E: Spiral ginger  
*CONTRACEPTIVE*: Two spoons of root paste administered every day night during periods.

**Cynodon dactylon** (Linn.) Pers.  
*Family-Poaceae*  
VN: Garica gaddi S: Durva H: Dub E: Bermuda grass  
*LEUCORRHOEA*: One spoon of root paste or 1-3 spoons of root juice is administered daily once.

**Cyperus rotundus** Linn.  
*Family-Cyperaceae*  
VN: Tunga gaddi S: Hima H: Nagarmotha E: Nut grass  
*LEUCORRHOEA*: Five g of tuber powder mixed with one glass of water and administered daily once till cure.

**Emilia sonchifolia** (Linn.) DC.  
*Family-Asteraceae*  
VN: Garbapodu, Elukakani S: Sudhirmudi H: Hirankhuri
*LEUCORRHOEA AND *MENORRHAGIA: Two or three spoons of root paste are administered with a glass of water once a day for 3 days.

*DISMENORRHOEA: The tuberous root ground into paste and taken orally along with salt.

_Evolvulus alsinoides_ Linn.
Family-Convulvulaceae

VN: Neelam puvvu S: Vishnu kranth H: Syama kantha

*MENORRHAGIA: Leaves or flowers with root or leaves or flowers of _Thunbergia alata_ are taken in equal quantities and ground. Two spoons of this paste mixed in a glass of hot water are administered twice a day for 3 days.

*AMMENORRHOEA: One spoon of whole plant powder mixed with one glass of water and administered daily once.

_Holarrhena pubescens_ (Buch.-Ham.) Wall. ex G. Don Family-Apocynaceae

VN: Aku paala, Kodisa pala S: Kutaja H: Karchhi E: Ivory tree

*POST PARTUM PROBLEMS: Fifteen g of root is ground with 20 ml country liquor of rice. Five spoons of this paste are administered immediately after delivery and then 2 g of _asafoetida_ is given.

_Hybanthus enneaspermus_ (Linn.) F.v. Muell Family-Violaceae

VN: Ratna purusa S: Charati H: Ratna purus E: Spade flower

*MENORRHAGIA: Root paste mixed with half tea glass of water is administered twice a day.

_Kalanchoe pinnata_ (Lam.) Pers.
Family-Crassulaceae

VN: Ranapala S: Asthi bakshi H: Zakhamhaiyat

*EASY DELIVERY: A piece of leaf is eaten at the time of delivery.

_Leucas aspera_ (Willd.) Link
Family-Lamiaceae

VN: Tummi S: Drona pushpi E: Chhota-itusa E: Thumbe

*DYSMENORRHOEA: Handful of leaves ground with that amount of pepper grains and made soap nut seed sized pills. Pills administered twice a day during three days of menses.

_Mimosa pudica_ Linn.
Family-Mimosaceae

VN: Kunuku rodda S: Laijalu H: Lajwati E: Touch-me-not

*MENORRHAGIA: Whole plant powder is mixed with saffron powder and given in doses of 3-4 g daily twice with water.

_Mirabilis jalapa_ Linn.
Family-Nyctaginaceae

VN: Poddhu dumpa S: Sandhya H: Gulabbas E: 4 ‘0 clock plant

*LEUCORRHOEA AND *MENORRHAGIA: Twenty five ml of tuberous root decoction is administered before breakfast once a day for 3 days. (Purple flowered plant tubers are used for leucorrhoea and pink flowered plant tubers are used for menorrhagia).

_Mucuna pruriens_ (Linn.) DC.
Family-Fabaceae

VN: Dula dama S: Kapi kacchu H: Kivach E: Cowitch

*LEUCORRHOEA: Seed powder administered along with water daily.

_Nymphaea pubescens_ Willd.
Family-Nymphaeaceae

VN: Erra Kaluva puvvu S: Kumuda H: Chhota-sundi E: Indian red water lily
**BLEEDING IN PREGNANT WOMEN**: Flowers with petiole are ground and bandaged on the lower abdomen.

**LEUCORRHOEA**: Decoction is prepared from tubers of white variety plant and *Mirabilis jalapa* and flowers of *Thunburgia alata* in equal quantities and 5 ml of it is administered daily once.

Fresh tuber is washed and made into pieces and shade dried. Two spoons of equal amounts of powder and sugar are administered daily.

**MENORRHAGIA**: Half cup of fruit juice is mixed with little amount of sugar and administered thrice a day.

Half cup of flower extract is mixed with one spoon of sugar and administered thrice a day.

*Oroxyllum indicum* (Linn.) Vent.
Family-Bignoniaceae

VN: Pampenga S: Syanaka H: Sonapatha E: Indian trumpet-flower

**LEUCORRHOEA AND MENORRHAGIA**: Stem bark ground with tuber of *Mirabilis jalapa* and salt, one spoon of paste is administered with half glass of water.

**POST PARTUM PROBLEMS**: Half cup of stem bark decoction is given after the delivery to suppress all types of pains.

*Pergularia daemia* (Forsk.) Chiov.
Family-Asclepiadaceae

VN: Dishtiveru S: Kurutakah H: Utaran E: Whitlow plant

**ABORTION**: Leaf paste mixed with half tea glass of water is administered twice a day for 2 d.

**MENSTRUAL DISORDERS**: One to two spoons of root paste is mixed with little ghee and taken (only rice with butter milk is taken as diet).

*Phyllanthus amarus* Schum. & Thonn.
Family-Euphorbiaceae

VN: Nelasirli, Nela usiri S: Bhumyamalaki H: Bhu-Amla E: Phyllanthus herb

**DYSMENORRHAGIA**: Fifty ml of whole plant juice is mixed with powder of 30 black pepper seeds and the entire paste is taken in one dose.

**LEUCORRHOEA**: Whole plant along with black pepper seeds are ground into paste and made into pills of soapnut seed size. One pill is administered twice a day for 15 days.

**Polyalthia suberosa** (Roxb.) Thw.
Family-Annonaceae

VN: Dudduga chettu

**PUERPERAL FEVER**: Root bark is ground with fruits of *Piper longum* (5:1) and made into decoction. Two spoonfuls of this decoction is administered twice a day for 5 days.

*Rubia cordifolia* Linn.
Family-Rubiaceae

VN: Mangala katthi S: Manjishtha H: Manjth E: Dyers madder

**LEUCORRHOEA**: Root paste mixed with root paste of *Mirabilis jalapa* and tubers of *Asparagus racemosus* are ground with water and administered twice a day till cure.

*Rubus ellipticus* Smith.
Family-Rosaceae

VN: Gedarabba chettu H: Hinsalu E: Yellow Himalayan rose berry

**LEUCORRHOEA**: Root paste along with root paste of *Mirabilis jalapa* mixed with half tea glass of water is administered twice a day for 3 days.

**MENORRHAGIA**: Root paste along with root pastes of *Mirabilis jalapa* and *Rauvolfia serpentina* mixed with half tea glass of water is administered twice a day for 3 days.
Scoparia dulcis Linn.
Family-Scrophulariaceae
VN: Goddu tulasi  E: Sweet broom-weed
Gathariguda (Araku valley)

*EASY DELIVERY:* Two spoons of leaf juice mixed with sugar is administered once.

Strychnos nux-vomica Linn.
Family-Loganiaceae
VN: Mushidi, Mushini  S: Kupilu  H: Kuchila  E: Nux-vomica

*FERTILITY:* Twenty g of seed paste mixed with a spoon of dove blood and 10 spoons of country liquor (rice) are taken and boiled gently and made into decoction. Two spoons of this decoction are administered on empty stomach from the second day of menses and are continued up to fifth day. Seed paste is also inserted inside uterus during intercourse. This treatment is administered 3 times at the time of menses for about 3 months and meanwhile 2 or 3 tender leaves of Mangifera indica and small piece of root of Vanda tessellata are tied with thread and wear around the neck as a chain.

Thunbergia alata Boj. ex Sims
Family-Acanthaceae
VN: Thalagudda teega  E: Yellow winged rainbow creeper

*ABORTION:* Two hundred and fifty g of flowers are heated lightly and placed on the abdomen and bandaged for a night. Note: Advisable to below 3 months pregnant women.

*LEUCORRHOEA AND MENORRHAGIA:* One spoon of root paste mixed in half glass of hot water is administered once a day for 3 days.

Tinospora cordifolia (Willd.) Miers. ex Hook. f. & Thoms. Menispermaceae
VN: Thippa theega  S: Guduchi  H: Amrit  E: Gulancha tinospora

*LEUCORRHOEA:* Stem paste mixed with half tea glass of water is administered twice a day till cure.

Vetiveria zizanioides (Linn.) Nash
Family-Poaceae
VN: Vatti veru, Kuru veru  S: Sevyah  H: Khas-khas  E: Vetiver

*MENORRHAGIA:* Half cup of root decoction mixed with sugar and administered daily once.

Withania somnifera (Linn.) Dunal
Family-Solanaceae
VN: Pennerugadda  S: Asswagandha  H: Asgandhal  E: Aswagandha

*LEUCORRHOEA:* Fifty ml of decoction of root is administered before breakfast for 7 days.

Woodfordia fruticosa (L.) Kurz
Family-Lythraceae
VN: Arepuvvu  S: Dhataki  H: Dhai  E: Fire flame brush

*MENSTRUAL DISORDERS:* Flower powder mixed with that of milk and sugar and administered daily to prevent excess bleeding during mensus.

Results and Discussion
The present ethnobotanical survey revealed as many as 38 medicinal plant species belonging to 37 genera under 29 families employed as remedy for gynaecological disorders. The plants are enumerated alphabetically giving plant scientific name, family, vernacular name, name of the author, voucher specimen number and locality followed by ethnomedicinal uses. The present study documents three new plant species viz., Aristida funiculate, Polyalthia suberosa and Thunbergia alata and 54 medicinal practices unreported according to Jain (1991); Kirtikar and Basu (2003) and is marked with an asterisk.

As many as 18 species are used for treating leucorrhoea, followed by 11 species for menorrhagia, 5 for post-partum problems, 4 each for dysmenorrhoea and menstrual disorders, 2 each for contraceptives, abortion, amenorrhoea, fertility and easy delivery, one each for puerperal fever and bleeding in pregnant women. Generally, fresh part
of the plant is used for the preparation of medicine when fresh plants parts are not available, dried parts are also used. Majority of medicinal plants are used as simple drugs but some drugs are used with combination of some other plant parts. Plant part-wise utilization shows highest exploited part is root (17) followed by leaves (10), whole plant (6), stem bark, tubers and flower (4 each), seed (3), stem, fruit and root bark (1 each) and leaf/flower (1).

Conclusion

The traditional knowledge and efficiency of these medicinal plants have been proven in their community since time immemorial. There is an urgent need for ethno pharmacological screening, based on tribal claims and beliefs and to formulate some herbal medicines for its safe and sustained use for human welfare. The traditional medicinal practices used by tribes of this area for women disorders can possibly be used as a potential source for making herbal medicines and can be documented for preserving the indigenous knowledge for posterity. Some of the herbal drugs can be used for sterilization in order to avoid surgical operations. Further studies in this direction are to be investigated through phyto and pharmacological experiments to know the validity of their therapeutic uses.

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References


