

**MANAGEMENT OF AMENORRHEA AND DYSMENORRHEA BY
USING MEDICINAL PLANTS & HOME REMEDIES****Jeyavalli A.*, Nepolean R., Mariyammal R. and Nirmala R.**

Asst. Prof., Thanthai Roever College of Pharmacy, Roever Campus, Perambalur, Tamilnadu,
India, 621212.

Article Received on
20 May 2019,

Revised on 11 June 2019,
Accepted on 02 July 2019

DOI: 10.20959/wjpps20198-15379

Corresponding Author*Prof. Jeyavalli A.**

Asst. Prof., Thanthai Roever
College of Pharmacy,
Roever Campus,
Perambalur, Tamilnadu,
India, 621212.

ABSTRACT

Dysmenorrhea, painful menstruation, is one of the most common gynecologic disorders. It is the greatest single cause of lost work and school days among young women. Dysmenorrhea may be primary, with no associated organic pathology, or secondary, with demonstrable pathology. Primary dysmenorrhea is caused by prostaglandin-induced uterine contractions. Primary dysmenorrhea tends to occur with the onset of ovulatory cycles and usually improves with time, coincides with the onset of menstrual bleeding. Secondary dysmenorrhea means pelvic pain caused by (secondary to) a disorder or disease. Non-medicinal approaches such as exercise, heat, behavioural interventions, and dietary/herbal supplements are commonly utilized by women in an

effort to relieve dysmenorrhea. So regular usage of dietary/herbal supplements by women is a good effort to relieve dysmenorrhea.

KEYWORDS: Amenorrhea, Dysmenorrhea, Dietary/herbal supplements.

INTRODUCTION^[1]

Dysmenorrhea: Dysmenorrhea, painful menstruation, is one of the most common gynecologic disorders. It is the greatest single cause of lost work and school days among young women. Dysmenorrhea may be primary, with no associated organic pathology, or secondary, with demonstrable pathology. Primary dysmenorrhea is caused by prostaglandin-induced uterine contractions. Primary dysmenorrhea tends to occur with the onset of ovulatory cycles and usually improves with time, coincides with the onset of menstrual bleeding.

Secondary dysmenorrhea means pelvic pain caused by (secondary to) a disorder or disease.

Amenorrhea

Primary Amenorrhea

No period by age 14 years and no growth and development of secondary sexually characteristics. No period by age 16 years regardless of presence of normal development and secondary sexually characteristics.

Secondary Amenorrhea

Cessation of regular menstruation for more than three cycle interval or more than six months total. Non-medicinal approaches such as exercise, heat, behavioral interventions, and dietary/herbal supplements are commonly utilized by women in an effort to relieve dysmenorrhea.

- Transcutaneous Electrical Nerve Stimulation (Tens) / Acupuncture
- Behavioural Interventions
- Complementary And Alternative Medicines (Cam).^[2]

Treating anxiety disorder and Depression by

- i) Stress and Relaxation Technique
- ii) Meditation
- iii) Yoga

From the review of literature some recommendation are obtained,

Recommendations^[3]

1. The following CAM has limited support and may be considered in the treatment of primary dysmenorrhea, though further study is required

- Vitamin B1 (I-B).

2. The following CAMs showed an initial positive response for the treatment of primary dysmenorrhea and merit further study

- Vitamin E (I-C) • Fish oil / Vitamin B12 combination (I-C)
- Magnesium (II-1 C)
- Vitamin B6 (II-1 C)
- Toki-shakuyaku-san (II-1 C)
- Fish oil (II-3 C)
- Neptune krill oil (II-3 C)

3. The following CAMs have not shown to have any benefit in the treatment of primary dysmenorrhea and may need further study

- Vitamin B6/magnesium combination (II-1)
- Vitamin E (daily) in addition to ibuprofen (during menses) (II-3)
- Fennel (II-3)

Work Plan: The information collected from the literature review the herbal plants which contains, the above mentioned vitamins and minerals are listed.

Medicinal Plants Used In Dysmenorrhea and Amenorrhea

- Papaya
- Oregano leaves
- Basil leaves
- Pineapple
- Avocado
- Passiflora
- Parsley leaves
- Angelica root
- Blue cohosh root
- Ginger root
- Lady's mantle
- Common Motherwort
- Catmint
- Fume wort
- Old man's pepper
- Cramp bark

Papaya^[4]



Scientific name	: <i>Carica papaya L.</i>
Family	: <i>Caricaceae</i>
Other common names	: Papaw, Pawpaw
English	: Papaya
Telugu	: Boppayipandu
Kannada	: Parangi /BopayiPandu
Malayalam	: papaya/ kappanga
Tamil	: Papalli
Hindi	: Papeeta

Properties attributed to the papaya are

- The fruit juice enhances iron absorption, acts on the central nervous system and heart. Latex is digestive and anti-parasitic, anti-asthmatic and rubefacient.
- **Flowers:** anti-bronchitis and antitussive.

Content and active ingredients of Papaya

- Papayina is a powerful digestive
- The fruit is rich in vitamins C and E and minerals (especially potassium). Contains papain and chymopapain and strong proteolytic enzymes.

Uses of papaya

Papaya fruit

- It is used in childish dysentery during the time of teething, taking a tender slice of peeled papaya fruit, boils moderately for 5-8 min, sweetens to taste and dosed in the milk. It should be observed carefully as it can have a reverse effect.
- On the Island of Guadalupe is used to prepare syrup using ripe fruit baked and mixed with plenty of sugar. It is very effective for cough, even in cases of tuberculosis.

Latex

- For treatment of whipworm is used the latex mixed with coconut milk and “piñuela” juice (*Bromelia pingu* Lindl).

Papaya roots

- It is used as vermifuge: a handful of roots boiled in common water and taken several times a day.

Leaves

- A brew of the Papaya's leaves has a good effect on asthma.

Flowers

- The infusion of the flowers is emmenagogue, febrifuge and expectorant.

Oregano leaves^[5]

Scientific name : *Coleus Lour amboinicus Origanum vulgare L.*

Family : *Lamiaceae*

Common names : Winter marjoram, Marjoram, Mountain mint, Wintersweet

Tamil : ovam

Telugu : vamu

Hindi : sathra

Malaiyalam : kattmaruva

Oregano is a high herb with fleshy leaves, hairy and angled stem used as a condiment and as an ornamental plant. It is native to tropical Asia.

Constituent: Vitamin A, C, E and K

Uses

- Dysmenorrhea, peptizing, carminative, antispasmodic and disinfectant airways. It is a general tonic and diuretic. As external use is analgesic, healing and antifungal. It is an antioxidant. Contains an essential oil with 90% of thymol and carvacrol.
- Decoction is prepared from the leaves and should be taken three glasses a day. Also can be taken as an infusion, before or after meals.

- Use with caution in children and in people with gastritis and gastrointestinal ulcers or intestinal disorders.

Basil Leaves^[6]

Scientific name	: <i>Ocimum basilicum</i> L.
Botanical family	: Order Labiatae Lamiaceae (Labiatae)
Common names	: Anise Basil, White Basil, Sweet Basil, French Basil, Lemon basil, Holy Basil, African Blue Basil.
Tamil	: Thulasi / Tirunirrippachai
Telugu	: Thulasi / Tulsi-Chettuhindi:
Malaiyalam	: Tulasi / Sivatulasi

The used parts of basil are: all the foliage, branches, leaves and flowering tops.

Constituents: Omega-3 Fatty Acids, Omega-6 Fatty Acids, Vitamin A, C, E, Calcium and Iron.

Uses and health benefits of basil**Basil Properties**

- It's more widespread use is in the digestive system as an antispasmodic. Several authors describe the therapeutic properties of basil as a stimulant, anti-dysmenorrhea, carminative and anti-hypochondria.
- Their seeds are well known as refreshing. Also as digestive, ant catarrhal, anti-cancer, hypotensive.

Preparation and popular uses of basil: The infusion of the basil leaves is use for the gonorrhea. A basil light infusion is used to fight vomiting.

- The leaves in brandy are used to massage the legs of children who cannot walk. A handful of leaves in brandy and a handful of rose petals in water, combined, serve to combat eye irritation.
- A teaspoon of basil juice with another of castor oil in a fasting state, helps to expel intestinal parasites, one hour after drinking.
- The essential oil of basil is used in perfumery as air-freshener and is one of the most popular herbs in French cuisine, especially the turtle soup, giving a taste similar to the spice called clove.
- Some authors report the toxicity of estragole (contained in the basil) and recommend its limited use in pregnant and breastfeeding, but there is no scientifically proven evidence.

Pineapple^[7&8]

Scientific name : *Anana scomosus*

Family : *Bromeliaceae*

Other name

Hindi : Anaanaas

Tamil : Annachi

Telugu : Anasapandu

Constituents

- Proteolytic enzymes (bromelain or bromelain)
- Citric and malic acids
- Vitamins A, B and C
- Sugars: glucose, sucrose

- Fats
- Mineral salts: iodine, magnesium, manganese, potassium, calcium, phosphorus, iron, sulfur
- High fiber (cellulose), in the core of the fruit

Medicinal Uses

Leaves: used as anthelmintic, cholagogue; fresh juice taken to treat hiccup and constipation.

Fruit: used as digestive, diuretic, Dysmenorrhea, laxative, diaphoretic and antiscorbutic; used to treat gastric irritability, jaundice.

Green fruit: used as abortifacient, anthelmintic, emmenagogue and styptic.

Avocado^[9&10]



Scientific name : *Persea americana* Mill

Family : *Lauraceae*

Common names

English : Avocado/butterfruit

Malayalam : Aathachakka

Kannada : Bennephala/ Benne hannu

Hindi : MakhanPhal

Constituents

Vitamins-vit K, vit C, vit B

Fats, Minerals and Carbohydrate

The avocado is attributed medicinal properties such as antitussive, cholagogue and flu remedy.

Avocado seed oil contains a compound for 80% of unsaturated fatty acids that can replace the olive, with a high content of vitamin E and B complex, giving the softening of the skin which makes it useful in the cosmetic and pharmaceutical industry. It has regenerative effect in the connective tissue.

The main part used for obtaining avocado oil is fruit mesocarp. In Latin America use the leaves, the epicarp (skin of the fruit, peel or rind) and seeds in different uses.

Passiflora^[11]



Botanical name : *Passiflora incarnate*

Family : *Passifloraceae*

Common name

Tamil : Mupparisavalli

Telugu : Tellajmiki

Hindi : Jhumkalata

Malayalam : Chadayan

Constituents

Vitamin A, B₁, C, E and K minerals like Calcium, Copper, Iron and Magnesium.

Uses of Passiflora

It is indicated in cases of anxiety, insomnia, hypertension, tachycardia, palpitations, migraines, dizziness, ulcers, gastrointestinal spasms. Dysmenorrhea, neurovegetative dystonia associated with menopause, nervous cough. Myalgia, muscle contracture. Also in depressive states like hysteria, nervous restlessness and gastrointestinal nerve complications.

Preparation and Dosage

Infusion of Passiflora: Add 130 ml of boiling water over a teaspoon of the plant, wait 10 minutes and strain. Take 2 or 3 times a day and half an hour before bedtime.

Tincture of Passiflora: 0.5 to 2 ml, 3 times a day.

Parsleyleaves^[12]

Scientific name : *Petroselinum crispum*

Family : *Apiaceae*

Common name

Tamil : Kothamaluillai

Telugu : Kothimeerajati

Hindi : Ajmood

Malayalam : Seemamalli

Parsley is a biennial herb up to 80 cm long, hairless, with thin stems and triangular outline leaves two to three times pinnate, the upper leaves have entire leaflets and the basal ones serrated or toothed. The flowers grouped in umbels of 8-20 radii are yellowish green. The fruits are subglobose or ovoid, aromatic, with five ribs equal.

The parts used are the entire plant: leaves, fruits and roots.

It is native to the Mediterranean region but now cultivated worldwide.

Active ingredients and content of Parsley

• **Leaves and seeds:** Essential oil (3-6%): fenilpropanos (apiol, myristicin) terpenes (alpha and beta-pinene). Flavonoids: apioside, luteolol, apigenol.

Vitamins A, B, C; minerals (iron, calcium, phosphorus, magnesium, sodium, potassium, iodine, manganese, sulfur); furanocoumarins trace: bergapten; enzymes: diastase.

- **Roots:** Essential oil (0.5-1%): apiol, myristicin; flavonoids: apioside. Polyphenols: falcarinol. Furanocoumarins: bergapten, oxypeucedanin, isoimperatorin.

Angelica Root^[13]



Botanical Name : *Angelica archangelica*

Family : *Apiaceae*

Common Names : Angelica root, Choraka

Hindi : Churaa, Gandrayan

Malayalam : Chorakapullu

Marathi : Corak

Parts Used: Roots, Stems, Seeds, Leaves.

Constituents

Vitamin A and C

Pinene, 3-Carene, Phellandrene. + myrcene, Limonene, Phellandrene and p-Cymene.

Angelica is a traditional birthing herb used to help bring on a delayed labour and to help expel the placenta following childbirth. Angelica relieves painful and cramping menstruation, (Dysmenorrhea), and brings on delayed menstruation.

Preparation Methods & Dosage: The entire plant is used, roots, stems, fruit and leaves, but the resinous root is the part used most often in herbal medicine. The fresh bruised or dried roots can be taken as a decoction, are made into extracts, and are the source of the essential oil. A magnificent plant to grace your garden, the hollow stems can be candied as well.

Angelica tea is warming to the soul and body bitter but not unpalatable. Angelica essential oil is used in aromatherapy. Also available as an extract.

Medicinal Uses: Amenorrhea, Ayurvedic, Colds, Congestion, Cough, Cramps/abdominal, Depression, Digestion, Dysmenorrhea.

Properties: AntiCancer, Antitussive, Aromatic, Bitter, Carminative, Cordial, Diaphoretic/sudorific, Emmenagogue, Expectorant, Nervine, Stimulant, Stomachic, Tonic.

Blue Cohosh Root^[14]



Botanical Name	: <i>Caulophyllum thalictroides</i>
Family	: Berberidaceae
Common Names	: Blue Cohosh Root, Squaw root.
Tamil	: Nīlakohoṣ
Telugu	: Nīlāmkohoṣ
Malaiyalam	: Nilakeaheas

Constituents: Alkaloids, Cystine(caulophylline), Baptifoline, Anagryne, Laburnine, Caulosaponin, Resins others-vitamins E and B₆

Parts Used: Dried root.

Preparation Methods & Dosage: Blue cohosh can be prepared as a tea or a tincture. The brew is dark, bitter, but a powerful remedy for the woes of menopause, arthritis pain. Blue cohosh extract is widely available in capsule form.

Medicinal Uses: Amenorrhea, Dysmenorrhea, Pregnancy/Childbirth.

Properties: Abortifacient, Anti Cancer, Antirheumatic, Antispasmodic, Emmenagogue, Hypertensive, Parturient.

Blue cohosh is considered to be one of the best herbs to bring on menstruation, and is one of the traditional herbs used to induce labor in natural childbirth.

Ginger Root^[15]



Botanical Name	: <i>Zingiber officinale</i>
Family	: <i>Zingiberaceae</i>
Common Names	:Ginger Root, LuyangDilaw
Tamil	: Inji
Telugu	:Allam
Malayalam	:Chukku
Hindi	: Sonth

Constituents: Volatile oil (mainly zingiberone and bisabolene), Oleoresin (containing the pungent principles Gingerols, Shogaols and Zingerone), Fats, Protein, Starch, Vitamins E and B, Minerals, Amino acids.

Parts Used: Root.

Health benefits of Ginger: Ginger can be used safely to treat a wide range of health problems, from simple nausea to arthritis. Ginger combines well with many herbs, improving taste and potency. Ginger speeds up the delivery of healthy plant chemicals into the bloodstream. Ginger is also a blood thinner, which may help reduce angina episodes by lowering cholesterol. The increase in blood flow helps relieve abdominal cramps and open the pelvis to bring on menstruation.

Medicinal Uses: Amenorrhea, Aromatherapy, Arthritis, Ayurvedic, Bruises/sprains, Cardiovascular, Cholesterol, Circulation, Colds, Cramps/abdominal, Digestion, Dysmenorrhea, Fibromyalgia, Nausea, Rheumatoid arthritis.

Properties: Analgesic, Anodyne, AntiCancer, Antioxidant, Antirheumatic, Antispasmodic, Aphrodisiac, Aromatic, Astringent, Bitter, Muscle Relaxant, Stimulant, Vasodilator.

Lady's Mantle^[16]



Botanical Name	: <i>Alchemilla vulgaris</i>
Family	: <i>Rosaceae</i>
Common Names	: Lady's Mantle, Leontopodium, Stellaria
Tamil	: Penninmelanki
Telugu	: Mahilayokkamantil
Hindi	: Mahilakaaavarani

Parts Used: whole herb, root

Constituents: Tannins, Flavonoids and Vitamins

Preparation Methods & Dosage: The dried leaves and flowers can be made into teas and extracts.

Medicinal Uses: Cuts & Wounds, Dysmenorrhea, Menorrhagia, Appetite Depressant, Astringent, Depurative, Emmenagogue, Refrigerant, Tonic, Vulnerary.

Common Mother Wort^[17]

Botanical Name	: <i>Leonurus caridica</i> L
Family	: <i>Lamiaceae</i>
Common Names	:Motherwort, Lion's tail.
Hindi	:Jaadibooti.

Constituents: alkaloids (including leonurinine and stachydrine), bitter glycosides (leonurine and leonuridin), tannins, a volatile oil, vitamin A.

Parts Used

Aerial parts: The herb regulates the menses, and is a strong emmenagogue, helping to stimulate delayed periods and is an excellent remedy for menstrual cramps especially those accompanied by scanty menses.

Medicinal Uses: Amenorrhea, Cardiovascular, Cholesterol, Dysmenorrhea, Female Hormones, Herbal Teas, Hypertension, Longevity Tonics.

Properties: Antispasmodic, Aromatic Astringent, Cordial, Diaphoretic, Diuretic, Emmenagogue, Nervine, Parturient.

Catmint^[18]

Botanical Name	: <i>Nepeta cataria</i>
Family	: <i>Lamiaceae</i>

Common Names	: Catnip, Catmint, Nep, Catnep
Tamil	:Peyimarutti
Hindi	: Gopoli
Malayalam	:Perumtumpa

Constituents

- Volatile oil (comprising carvacrol, nepetol, thymol, nepetalactone, citronellol, geraniol)
- Tannins, Rosmarinic acid
- Vitamins C and E

Parts Used: Leaves and flowering tops.

Catnip teas have long been used in traditional herbal medicine to quell digestive disturbances, and reducing the pain of menstrual cramps.

Medicinal Uses: Anxiety, Cramps/abdominal, Dysmenorrhea, Herbal Teas, Insect Repellent.

Fume Wort^[19]



Botanical Name	: <i>Corydalis spp.</i>
Family	: <i>Papaveraceae</i>
Common Names	:Corydalis, Fumewort, Yan Hu So
Malayalam	: Manna nia

Constituents

Alkaloids, Bulbocapnine, Cordalines, Tetrahydropalmatine (thp), and Protopine.

Parts Used

Tuber and Bulb.

Medicinal Uses

Cardiovascular, Dysmenorrhea, Headache/Migraine, Pain Relief, Sleep/Insomnia Corydalis is currently being studied for use in cancer, hypertension, and convulsions, however the primary focus is on the herbs use as a natural pain reliever.

Properties

Analgesic, Anodyne, Antispasmodic, Depurative, Hypotensive, Muscle Relaxant, Sedative.

Old Man's Pepper^[20]



Botanical Name	: <i>Achillea millefolium</i>
Family	: <i>Asteraceae</i>
Common Names	:Yarrow, Milfoil, Old Man's Pepper, Nosebleed
Tamil	:Caatarali
Hindi	:Yero jade butee
Telugu	:Yaro
Malaiyalam	:Chattankaya

Constituents: up to 1.4% Volatile oil (composed of up to 51% azulene; Borneol, Terpineol, Damphor, Cineole, Isoartemesia ketone, and a trace of thujone), Lactones, Flavonoids, Tannins, Coumarins, Saponins, Sterols, a bitter Glyco-alkaloid (achilleine), Cyaniding.

Parts Used: Aerial parts, essential oil Yarrow was once known as "nosebleed", its feathery leaves making an ideal astringent swab to encourage clotting. Yarrow skin washes and leaf poultices can staunch bleeding and help to disinfect cuts and scrapes; taken as a tea it can help slow heavy menstrual bleeding as well.

Medicinal Uses: Cuts & Wounds, Dysmenorrhea, Hypertension, Menorrhagia.

Properties: Anti-inflammatory, Antibacterial, AntiCancer, Antirheumatic, Antispasmodic, Astringent, Bitter, Cathartic, Depurative Emmenagogue, Febrifuge, Hypotensive, Insect repellents, Midsummer, Nervine, Styptic.

Cramp Bark^[21]



Botanical Name	: <i>Viburnum opulus</i>
Family	: <i>Caprifoliaceae</i>
Common Names	: Cramp Bark, Stagbush, Sweet viburnum, Guelder-rose, water elder, Arrowwood
Telugu	: Vaibran opals
Malaiyalam	: Vaibarnamoppulas

Constituents: Scopoletin, Bitter principle (viburnin), Triterpenoidsaponins, Salicosides, Resin, plant acids (including valeric acid), Tannin, Arbutin.

Parts Used: Bark

Medicinal Uses: Dysmenorrhea, Menopause, Pregnancy/Childbirth.

Properties: Antispasmodic, Astringent, Estrogenic, Hypotensive, Nervine, Uterine Tonic.

- Viburnum prunifolium and cramp bark V opulus act in similar ways and both have a long history of use by Native and pioneer women.
- These herbs help to relax the uterus which can help prevent miscarriages in pregnancy, and to relieve uterine cramps and painful periods.

DISCUSSION

From the review of literature some recommendation are instruct to regular intake of diet which are rich in Vitamin A, E, C, K, B₁, B₆ and B₁₂. The minerals like Calcium and Magnesium rich food can manage the Dysmenorrheal and Amenorrhea condition.

CONCLUSION

In this work, some theoretical works are done and future plan is detailed experimental studies are carried.

ACKNOWLEDGEMENT

The authors are very grateful to the Principal and the Management of Thanthai Roever College of Pharmacy, Perambalur, Tamilnadu, to give an encouragement and for providing necessary facilities to carry out this work.

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