

Prevention Diagnosis, Causes and Management of Dysmenorrhea in Unani System of Medicine

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Abstract

Dysmenorrhea a common gynecologic disorder among the female throughout the world. It affects more than half of women of 15-25 years and is one of the leading causes of their recurring short-term absenteeism in educational place and workplaces. Dysmenorrhea refers to painful menstruation and the painful cramps in the lower abdomen is associated with one or more symptoms like sweating, lower backache, fatigue, diarrhea, headache, nausea, vomiting, dizziness and in severe cases syncope etc. Pain is often not completely relieved by conventional medicines and the medicine has also its own side effects on the human body therefore, it is need of time to understand the traditionally documented therapeutic options, which has no adverse effect on the human body. They have also mentioned some herbal drugs and unani compound formulations in unani classical literatures for treatment of usre tams (dysmenorrhea). The article focus on the unani concept of dysmenorrhea, its Prevention, diagnosis and management in unani system of medicine. It also things to see some of the herbal drugs from Natural sources and unani compound formulations used in the management of dysmenorrhea. Generally Harbal Drugs Ergot Alkaloid Methyl Ergometrine in the form of Injection by I/M are used to control the Bleeding in Dysmenorrhea.

Keywords Dysmenorrhea; Herbal Drugs formulation.

1. Introduction.

Dysmenorrhea is a common gynecological problem in women of reproductive age; in general, it begins with the first ovulation cycle and occurs about two years after menarche and most of the severe episodes occur till 25 years of age.

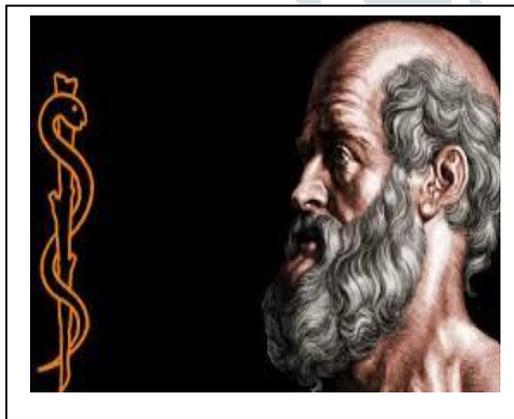
Dysmenorrhea word is derived from Greek words 'dys' meaning 'difficult, painful or abnormal'; 'meno' meaning 'month' and 'rrhoea' meaning 'flow' that means "Painful menstrual flow". The affected women experience sharp, intermittent spasm of pain usually rigorous in the suprapubic area but pain may also radiate to the back and along the thighs. The painful cramping sensation in the lower abdomen is often accompanied by some other



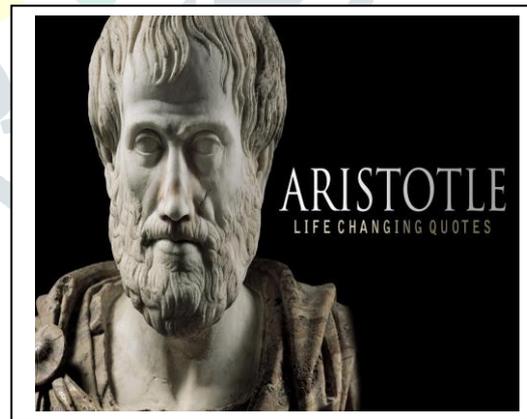
symptoms including sweating, lower backache, fatigue, diarrhea, headache, nausea, vomiting, dizziness and in severe cases syncope etc. Unani physicians have discussed the various causes and management of Dysmenorrhea under the headings of waje rehm / dard rehm/ usre tams uterine pain. They worked on the theory of temperament and succeeded in locating the relationship between disease, various humours and disturbance of the temperament. Therapy in unani system of medicine is based on the understanding that a particular illness in the patient has developed due to disharmony in her/his temperament, which has deviated from its equilibrium status therefore; the objective of treatment is rectification of the disturbance of temperament.

2. Historical Background.

The word “dysmenorrhoea” is well known in English. But before this in olden Amenorrhoea and dysmenorrhoea were known to Egyptian practitioners as abnormal conditions. Dysmenorrhoea was also known to Greek philosopher Hippocrates (Boqrat) , whose opinion was that usre-tams [dysmenorrhoea] occurs due to termination of flowing of



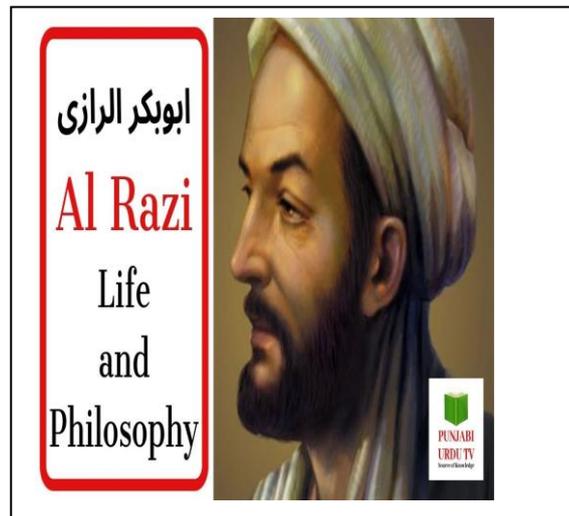
Hippocrates (460 to 370 B.C.)



Aristotle (384 to 322 B.C.)

menstrual blood secondary to cervical obstruction, which causes painful menstrual cycle but it does not occur when the menstrual flow is regular and adequate in quantity. Hippocrates explains that delaying of motherhood may be one cause of uterus disorder and difficult blood flow therefore women suffering with disease were urged to marry and conceive as quickly as possible to get relief from menstrual pain. Both, Hippocrates and Aristotle (Arastoo) have advocated for breathing exercises to relieve the pain. Ibne Sina has mentioned in the treatise ‘Canon of Medicine’ that obstruction in the menstruation flow due to change

of temperament



Hakeem Ajmal Khan (1868-1927)

Zakarya Al Razi (854 to 932)

results difficult menstruation. Zakarya Razi has described the dysmenorrhea as pain of uterus [darde rehm] in his manuscripts 'Al HawiFilTib' and has recommended some unnai drugs for treatment of waze rehm [uterine pain]. According to Hkm. Ajmal Khan, in usre tams either menses stops from beginning or ceases after sometimes of normal menstruation or comes in decreased amount or occurs in a little amount with gap associated with pain. Hassan Qurashi has described that usre tams is characterized by difficulty and pain at the time of menstruation, which is often exaggerated. Akber Arzani has stated that backache is present in the usre tams before and during the menstrual flow.

3. Types of Dysmenorrhea

A. Primary Dysmenorrhea.

Primary dysmenorrhea is menstrual pain that's not a symptom of an underlying gynecologic disorder but is related to the normal process of menstruation. Primary dysmenorrhea is the most common type of dysmenorrhea, affecting more than 50% of women, and quite severe in about 10%. Primary dysmenorrhea is most common in late adolescence and the early 20s. Fortunately for many women, the problem eases as they mature, particularly after a pregnancy. Although it may be painful and sometimes debilitating for brief periods of time, it is not harmful.

B. Secondary dysmenorrhea

In the secondary dysmenorrhea menstrual pain that is generally related to some kind of gynecologic disorder. Most of these disorders can be easily treated with medications or surgery. Secondary dysmenorrhea is more likely to affect women during adulthood.

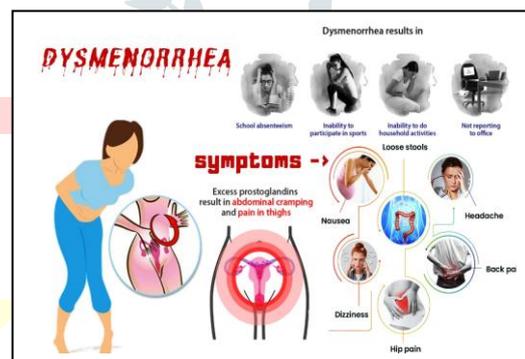
4. Causes of dysmenorrhea

Menstrual cramps are caused by contractions (tightening) in the uterus (which is a muscle) by a chemical called prostaglandin. The uterus, where a baby grows, contracts throughout a woman's menstrual cycle. During menstruation, the uterus contracts more strongly. If the uterus contracts too strongly, it can press against nearby blood vessels, cutting off the supply of oxygen to the muscle tissue of the uterus. Pain results when part of the muscle briefly loses its supply of oxygen. Menstrual pain from secondary dysmenorrhea is caused by a disease in the woman's reproductive organs. Conditions that can cause secondary dysmenorrhea include:

- Endometriosis - A condition in which the tissue lining the uterus (the endometrium) is found outside of the uterus.
- Adenomyosis .A condition where the lining of the uterus grows into the muscle of the uterus.
- Pelvic inflammatory disease - An infection caused by bacteria that starts in the uterus and can spread to other reproductive organs.
- Cervical stenosis - Narrowing of the opening to the uterus.
- Fibroids (benign tumors) - Growths on the inner wall of the uterus.

5. symptoms of dysmenorrhea

- Aching pain in the abdomen
- Feeling of pressure in the abdomen
- Pain in the hips, lower back, and inner thighs



6. Clinical Features of Dysmenorrhea

Pain in pelvic region is common in all types of usre-tams. Ibn Sina has stated that menstrual pain is felt in suprapubic area and radiates to thigh and legs. According to Hkm. Azmal Khan and G. Jilani have described in Hazique and Mukhzanul-Ilaz that menstrual pain may be so severe that patient may become faint and unconscious. Patients feel sharp pelvic cramps or deep / dull ache before or during the menstruation flow. It is often accompanied with associated symptoms like pain in hips, pain in lower back or thighs, big/ heavy stomach, Scanty menstrual flow, Phlegmatic swelling in uterus, backache, headache, general achiness, paleness or yellowish on face, tiredness, weakness, feeling unhappy, increased heartbeats, palpitation, vomiting, nausea, diarrhea, fever and others.

7. Diagnosis of Dysmenorrhea

A. Obstructive / Suddi Usre Tams

Pain is so severe that patients may become unconscious and faint. The patient complains of vertigo, giddiness, nausea and vomiting. Some patient also complaints of nasal, oral and vesicular bleedings.

B. Gheshae or Membranous Usre-Tams

Gheshae or Membranous usre tams is an advance stage of spasmodic usre-tams. This type of usre- tams is

hereditary and often occurs after delivery. Menstrual flow decreases after 24 to 36 hours and mucous membrane discharges with menstrual fluids. After discharge of mucous membrane, menstrual flow becomes normal.

C. Mubaizi or Ovarian Usre Tams

In the Mubaizi / Ovarian Usre Tams, the patients feel pain just before to start of menstrual flow and complaints of pain mostly in left ovary, flatulent and frequent painful urine. Swelling may be observed after palpation.

D. Inflammatory or Warmi Usre Tams

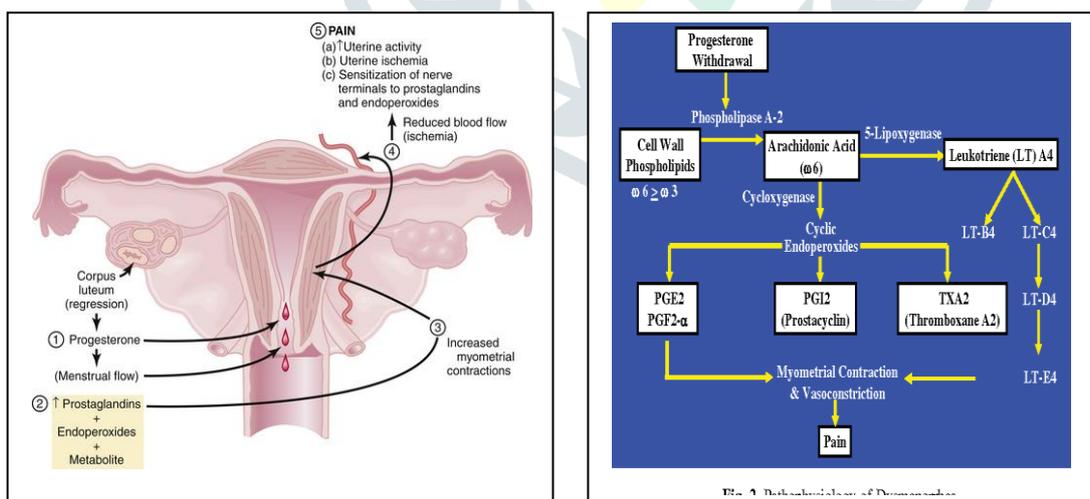
Menstrual fluid becomes thick and some viscid fluids (Balghame ghaleez) stick around the cervix. Patient experiences scanty blood flow with severe pain in first day, heaviness in pelvic region and lower abdomen pain before 5-7 days of the start of menstrual flow, pain in uterus, backache, restlessness, nausea, headache and mild fever.

E. Spasmodic or Tashannuji Usre Tams

The cramps are most severe on the first or second day of menstruation. Pains are spasmodic in nature and strongest over the lower abdomen but they may also radiate to the back and the inner aspects of the thigh. Symptoms seldom persist for more than 2-3 days. The cramp is commonly accompanied by one or more systemic symptoms, including nausea, vomiting, fatigue, diarrhea, lower backache and headache.

8. Etiology of Dysmenorrhea

The etiology of primary dysmenorrhea, which is the most common gynecologic complaint and cause of lost working hours, remains obscure but merits careful scientific investigation. Recent studies suggest that increased endometrial prostaglandin production and release may



Pelvic pain in Dysmenorrhea

Review of Dysmenorrhea

be responsible for dysmenorrhea. Prostaglandins cause myometrial contractility that, if excessive, leads to uterine ischemia and pain. This hypothesis has led to clinical trials of antiprostaglandin agents such as indomethacin and fenamates, which inhibit the synthesis of prostaglandin through the prostaglandin synthetase system as well as antagonize their action at the cell receptor level. The good response of

dysmenorrhea to other conventional forms of therapy such as oral contraceptives and dilatation of the cervix can be partly explained on the basis of a reduced level of prostaglandins in the menstrual fluid with such therapy. There is a definite need for further evaluation of the antiprostaglandin compounds in the treatment of dysmenorrhea so that sound formulations can be evolved for the elimination of this incapacitating disorder.

Unani scholars have described the various causes of dysmenorrhea under heading of waje rehm / dard rehm/ usre tams. According to them, imbalance of humours causes obstruction in the flow of menstruation. Ibn sina has described that any obstruction in the flow of menstruation fluid may cause usre tams and it occurs, when the menstruation cycle is irregular and menstruated blood is not balanced in quality and quantity. According to Hkm. Ajmal Khan, usre tams is caused by ghaleez khoon and during menstruation, rehm undergoes forceful contraction to expel the ghaleez khoon, which results pain in uterus.

The others etiological causes of waje rehm/dard rehm/usre tams as described in unani classical texts are Sue-mizaj (distemperament), Warne rehm (inflammation of uterus), Zofe rehm (weakness of uterus), Quroohe rehm (ulcers of uterus), Sayalan-al-rehm (whitish vaginal discharge), Sartane rehm (carcinoma of uterus), Amraze rehm sabaqe (previous disease of uterus), Sailan khoon (menorrhagia), Qillate dam (anemia), Qillate tams (oligomenorrhea), Ehtebase tams (amenorrhea),

9. Prevention of Dysmebnorrhea

A. Preventive measures

1. Morning walk
2. Light exercise: Exercise may be a way to reduce the pain of menstrual cramps, through the production of endorphin by the brain, the body's own pain killers.

B. Curative measures

1. Heat application
2. Application of heat to the lower abdomen appears to be as effective as oral analgesics for relief of dysmenorrhoea.
3. Dietotherapy

According to Unani, physicians like Razi and Jurjani the patient should take water of soaked gram, baha ka shorba, safed baj, baizai murgh neem biryan ki zardi, maullaham, murgh ka shorba, anar sheeren, milk, gazar dashti.

1. Diet rich with fiber, calcium and complex carbohydrates helps to ease cramps.
2. Fruits and salads are nature's body cleansing foods.
3. Magnesium helps to reduce water retention, which is present in whole grains, nuts and green vegetables. Fish and meat also contain significant amounts of magnesium.
4. Use of diet rich with calcium carbonate and Vitamin B complex regularly.
5. Take vegetable oils like olive, sunflower, and safflower oils, nuts, whole grains and green leafy vegetables containing vitamin E in a dose of 400 IU one or two times a day for 3 cycles.
6. Take salmon and other fishes containing Omega-3- fatty acids.

7. Drink 6-8 glasses of water and enough milk every day.
8. Health restoring foods like whole grain, nuts and seeds especially in sprouted form to be taken.

10. Dysmenorrhea Treatment and Limitation

NSAIDs such as Ibuprofen, Cataflam, Diclofenac, Ketoprofen, Meclofenamate, Mefenamic acid, Naproxen and Aspirin etc. act as prostaglandins inhibitors to give relief from menstrual pains. But, use of NSAIDs for prolonged period causes gastro-intestinal bleeding and ulcers, risks of heart attack, stroke and renal dysfunction. Prolonged use of NSAIDs may have adverse effects such as Nausea, vomiting, diarrhea, constipation, decreased appetite, rash, dizziness, headache and drowsiness etc. Oral Contraceptives reduces menstrual fluid volume through suppression of endometrial tissue growth, giving rise to reduced prostaglandin levels. But, OCs may have adverse effects such as mood-changes, nausea, fluid retention, breast tenderness, headache, anxiety, loneliness, weight gain, acne etc. Surgery may be used to treat the dysmenorrhea but it is costly, uncomfortable and various complications may be developed after surgery.

11. Unani Principle of Treatment of Dysmenorrhea

A. Pharmacotherapy

Treatment of Warmi Usre Tams (Inflammatory dysmenorrhea)

- (i) Decoction of Abhal (*Juniperus communis*) and Karafs Kohi (3 gm each); Tukhme kharpaza (*Cucumis melo* seeds), Khare khasak (*Tribulus terrestris* linn.) and Bekhe kashni (*Cichorium intybus*) (6 gm each) prepared with 70 gms of Arq-shatra (*Fumaria parviflora* lam) and Arq-makoh (*Solanum nigrum* linn.) should be given with 20 ml of Sharbat Bazoori.
- (ii) Decoction of Tarmas (white lupine), Abhal (*Juniperus communis* linn.), mustara maseeh (*Mentha pulegium* linn), majeeth (*Rubiscordi folia* linn), berge sodabe, podina khusk (7 gm each) prepared with 375 ml water should be given with 40 ml of Sharbat Bazoori.
- (iii) Luaabe behdana (*Cydonia oblonga* mill) (3gm), Sheerae unnaab (*Zizyphus vulgaris* lau) (5 pills), Arq-gauzeban (*Borago officinalis* linn.) (120 ml) should be given with 20 ml of Sharbate Nilofe.

Treatment of Tashannuji or Spasmodic dysmenorrhea

- (i) Decoction of drugs Tukhme Karafs (*Apium graveolens*), podina (*mentha arvensis*) (dry) and Badiyan (*Foeniculum vulgare*) (5 gm each); Tukhm-Kharpaza (*Cucumis melo* seed) and post Amaltaas (*Cassia fistula* linn.) (7 gm each); Tukhme Bhang (*Cannabis sativa* linn.) and Ajwain Khurasani (*Hyoscyamus Niger*) (1 gm each) prepared with 375 gm of water should be given with 25 ml of Sharbat Bazoori Motadil.
- (ii) Pills made by mixing of fine powders of Jund Baidaster and Halteet (*Ferula Asafoetida*) (1 gm); Tukhme Bhang (*Cannabis sativa* linn.), Ajwain Khurasai (*Hyoscyamus Niger*) and Podina nahri (*Mentha Arvensis*) (2 gm each); Kafoor (*Cinnamomum Camphora*) (3 gm) with honey should be given thrice daily.

Treatment of Gheshae or Membranous dysmenorrhea

Decoction of Tukhme Qurtum (*Carthamus tinctorius* L.), Gauzuba badiyan (*Foeniculum vulgare*), Tukhme kharpaza (*Cucumis melo* seed), Tukhme Karafs (*Apium graveolens*), Bekhe Kashni (*Cichorium intybus*) (5

gm each) prepared with 250 ml water should be given with 25 ml of Sharbat Bazoori Motadil.

Treatment of Suddi / Obstructive dysmenorrhea

- (i) Surgery- To remove the obstruction in the uterus.
- (ii) Dilator should be used to wide and expand the opening of narrow cervical canal.

Treatment of Mubaizi or Ovarian dysmenorrhea

- (i) Surgery – To remove the cyst in ovary
- (ii) Eliminate the real cause of the ovary diseases.
 - If menstruation pain is due to imbalances in humours then decoction of mixed ingredients Chirraita, Bekhe Badiyan and Bekhe Karafs (7 gm each) should be given with 50 ml Sharbat Bazoori Motadil to correct the imbalance in humour.
 - If the cause is due to uterine displacement then constipation should be avoided. Habbe Tinkar (3 pills) with warm water should be given in night to treat the constipation.
 - To correct the generalized weakness of the patient, Kushta Faulad (1 pill) should be given either with Dawaul Misk Motadil Jawahar wali (5 gm) or with Khamira Abresham Hakeem Arshad wala before the meal and Sharbate Faulad (3 gm). After the meal, Maul Laham Zadeed or Mul Laham Ambarly 50 (gm) mixed with Sharbate Anar Siri 25 ml and Mauz zahab (5 drops) mixed together with Maul Laham Khas (50 gm) should be given.

B. Regimental Therapy

Regimental therapy is one of the four methods of treatment in the Unani system of medicine, which is used independently or in combination with other methods of treatment like Ilaj Bil Dawa (Pharmacotherapy), Ilaj Bil Ghiza (Dietotherapy) and Ilaj Bil Yad (Surgery). The different types of method used for care and general health maintenance of sick people are riyazat (exercise), dalak (massage or friction), takmeed (fomentation), zimaad wa tila (ointment and liniment), sitz bath, ishall (purgation) and hijamat (cupping) etc.

- Post-e-khaskhas (12gm) and guletesu (25 gm) boiled with two liter of water should be used as fomentation on the lower abdomen to reduce the severity of the pain.
- If obesity, overweight and cold exposure are the main cause of the disease then use purgative medicines before 2 to 4 days of the expected date of menses. This should be accompanied with sitz bath in 20 gm mustard seed powder mixed with luke warm water.
- Abzan (Sitz Bath): With decoction of drugs like Abhal, Berge suadaab, Shatur farasi, Gule babuna, Akleelul Mulk, Podina Khusk, Tokhme sabat, Marzan josh and Tukhme karafs (9 gm each) boiled with 1 liter water and added with 20 liter of hot water.
- Leeching: Leeching of upper part of the thigh.
- Zimad (paste): Tukhme sabat, Satar farasi, Murmakki, Qust talk, Measaila, Tukhme karafs, and Shahme hanzal (6 gm each) should be grinded with green Makoh and added with castor oil (12 gm) to make

paste. Luke warm paste should be applied on the lower abdomen.

- Humool (pressary): Mur (6 gm), Soddaab (6 gm) and Raziana (6 gm) should be mixed and grinded to use the fine powder with honey as pressary before 3 days of the expected date of menstrual cycles.
- Hijama (dry cupping) over the umbilicus removes the blood and fluid from the site of inflammation to give relief from the menstrual pain.

C. Dieto-Therapy

Dieto-therapy seeks to restore the imbalances in the body due to errant lifestyles. Unani physicians have advised the patients of usre-tams to take high nutritious diets in case of general weakness; mutton ka shorba, lamb meats, murg ka shorba, diet rich in iron like carrot, green leaf vegetable; diet rich in fibre to remove constipation; diet rich in magnesium like fish, milk and fish-oil; bottle-gourd; pulses of arhar and moong and plenty of water etc.

D. Psychotherapy

Timely psychological therapy should be done for psychological care of the patient because most of the patients depressed psychologically. Patients and their relatives should be assured that Dysmenorrhea is a common problem in female adolescents and is curable.

12. Herbal Drugs used in Dysmenorrhea

Many women use herbs to alleviate primary dysmenorrhea. Gholami [6], in a systematic review, analysed 24 studies on effects of herbs on dysmenorrhea and found that thyme (*Thymus vulgaris*), chamomile tea (*Matricaria chamomilla*), St. John's wort (*Hypericum perforatum*), fennel (*Foeniculum vulgare*), cinnamon (*Cinnamomum*), dill (*Anethum graveolens*), saffron (*Colchicum*), celery (*Apium graveolens*), anise (*Pimpinella anisum*), balm (*Balsamum*), valerian (*Valeriana officinalis*), mint extract (*Menthe longifolia*) and organic honey were effective in alleviating primary dysmenorrhea. They stated that most of the studies reviewed were about Fennel vulgare and that this herb could be used reliably for treatment of dysmenorrhea. In addition, ginger (*Zingiber officinale*), sage (*Salvia lvanulifolia*), chamomile (*Matricaria chamomilla*) and valerian (*Valeriana officinalis*) were found to be effective in the treatment of dysmenorrhea, but it was recommended to conduct further studies about these herbs.

13. Conclusion:

Dysmenorrhea is a most common problem among young females. The condition is mentioned in classical Unani literature under different names. While searching the Unani literature, there are many overlapping conditions, which may mimic to this disorder. The etiopathogenesis of the disease and the treatment beside regimental therapy and the diet have been mentioned in length in classical texts. However, on the other hand, NSAIDs, OCPs, and other conventional methods are associated with lots of toxicities and adverse effects. Therefore, Unani system of medicine might play an important role as it contains many safe and effective medicinal herbs, various modes of ilaj-biltadabeer and other dietary recommendations prescribed by the famous and experienced Unani physicians to treat various disorders.

Unani manuscripts are very much enriched with information related to menstruation and pelvic pain/uterine pain/dysmenorrhoea and its management with diet therapy, *hijamah bila shart* (dry

cupping), *takmeed* (hot fomentation), nutool therapy, and medicinal herbs with antispasmodic, analgesic properties such as ginger, rose, fenugreek, cumin, and so on. These herbs in recent times are pharmacologically proven for their anti-inflammatory, antispasmodic, and analgesic activities. Thus, traditional knowledge validation and protection is mandatory and prerequisite for prospective research and valuable for use in the modern-day era.

The article focuses on diagnosis and management of dysmenorrhea by using herbs and Unani formulations because it is devoid of any side effect on the human body.

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