

## Diagnosis and Management of Dysmenorrhea in Unani (Greeko-Arab) System of Medicine

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**Abstract** Dysmenorrhea is the most common gynecologic disorder among the female adolescents that affects more than half of women of 18-25 years and is one of the leading cause of their recurrent short-term absenteeism in schools 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. Unani physicians have described the various causes and management of dysmenorrhea under the heading of waje rehm / dard rehm/ usre tams in the unani literatures. They have also mentioned some herbal drugs and unani compound formulations in unani classical literatures for treatment of usre tams (dysmenorrhea). The review article focuses on the unani concept about dysmenorrhea, its diagnosis and management in unani system of medicine. It also highlights some of the herbal drugs and unani compound formulations used in the management of dysmenorrhea.

**Keywords** *Dysmenorrhea; Unani Systems of Medicine; Usre Tams; Herbal Drugs*

### 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 occurs before 25 years of age [1]. 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 [2]. The affected women experience sharp, intermittent spasm of pain usually concentrated in the suprapubic area but pain may also radiate to the back and along the thighs [3, 4]. 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. [5, 6]. It affects more than 50% of menstruating women in age group 18-25 years [7] and 10% of these women suffer severely enough to render them incapacitated for one to three days in each menstrual cycle [8]. It is one of the leading cause of recurrent short-term absenteeism of young women in schools and workplaces, affecting their performances, social and sports activities [9]. This situation has not only significant impact on personal health but also have a global economic impact [10].

Unani physicians have discussed the various causes and management of dysmenorrhea under the headings of waje rehm / dard rehm/ usre tams uterine pain [4, 11]. 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. According to Unani physicians, it is the altered temperament (sue mijaz) that causes obstruction in flow of menstruation fluid that results difficult menstruation [12]. Treatment is therefore, aimed directly at restoring balance to patient's temperament or humours.

The conventional medicines prescribed for treatment of dysmenorrhea are NSAID and OCPs (prostaglandin inhibitors) that have notable side effects like nausea, stomach irritation, gastrointestinal ulcers and renal blood flow etc.[13] therefore, herbs and unani drugs formulations, which have least or no side effect on human body, have received special attention to get relief from menstrual pain..

In this review article, an effort has been made to focus on the various causes of dysmenorrhea; diagnosis and management of dysmenorrhea by unani system of medicine. Some herbs and unani compound formulations used in treatment of usre tams (dysmenorrhea) have also been highlighted.

## 2. Historical Background

The word "dysmenorrhoea" makes its appearance in the English language in about 1810 [14]. Amenorrhoea and dysmenorrhoea were known to Egyptian practitioners as abnormal conditions. Dysmenorrhoea was also known to Greek philosopher Hippocrates, whose opinion was that usre-tams [dysmenorrhoea] occurs due to cessation of flowing of 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 [15, 16]. According to Hippocrates, 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 [17]. Both, Hippocrates and Aristotle have advocated for breathing exercises to relieve the pain [18]. Dysmenorrhoea and other menstrual disorders were treated by the Roman Physicians by using the herbs, specifically asparagus root. Ibne Sina has mentioned in the treatise 'Canon of Medicine' that obstruction in the menstruation flow due to change of temperament results difficult menstruation [12]. Zakarya Razi has described the dysmenorrhoea as pain of uterus [dard rehm] in his manuscripts 'Al HawiFiTib' and has recommended some unnai drugs for treatment of waze rehm [uterine pain]. He has also advised dry cupping and massage on lower abdomen and sitz bath to relieve the menstrual pain [11]. Both, Majoosi and Ibn Huba have described in their legendary texts Kamilassina and Kitab al Mukhtar al tibb respectively that women having scanty flow of menstruation usually suffer with painful menstruation [19, 20]. According to I. Jurjani, pain occurs in abdomen along with pain of uterus, headache and backache. After a long period pain gets lodged in the hips [21]. 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 [22]. 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 [23].

### 3. Classification of Usre Tams Dysmenorrhea

Usre tams is classified into five types [24, 25],

#### (i) Inflammatory or Warmi Usre Tams

It is due to inflammation in uterus or cervical canal and occurs after the delivery, when uterus does not return back to its anatomical position. Most of the obese women experience this type of usre tams.

#### (ii) Spasmodic or Tashannuji Usre Tams

It occurs due to uterine cramps, which is severe before the first or second day of the start of menstruation flow. The 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; suprapubic and umbilicus region. It usually occurs in female adolescents.

#### (iii) Obstructive or Suddi Usre Tams

This type of usre tams occurs due to small size of uterus, displacement of uterus or some obstructions in cervix opening. The inflammation in cervix results obstructions in cervical canal.

#### (iv) Membranous or Gheshae Usre Tams

It occurs due to weakness of uterus and exposure to cold. It is mostly experienced by woman with tension and anxiety.

#### (v) Ovarian or mubaizee Usre Tams

It occurs due to ovarian cyst or other diseases of the ovaries. Patients experience pain mostly in the left ovary.

### 4. Clinical Features of Usre Tam

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 [4, 26, 27, 28, 29, 30].

## 5. Diagnosing of Usre Tams

### 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.

### 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.

### 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.

### 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.

### 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 [23, 24, 25, 30].

## 6. Etiology

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 [12]. 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 [29].

The others etiological causes of waje rehm/dard rehm/usre tams as described in unani classical texts are Sue-mizaj (distemperament), Warme 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),

Sozish-e-khasiyatur rahm (ovarian cyst), Insidade fame rehm (cervical stenosis), Muzmin amraz (prolonged and chronic disease), Displacement of uterus, Uterine rupture, Accumulation of excess fats in Uterus, Tension and anxiety, Exposure to cold, Cold bath, Wearing wet clothes for long time, Increased black bile and phlegm in blood, Increased viscosity of blood, Consumption of ghaleez foods and Obesity [4, 11, 21, 24, 25, 27].

## 7. Preventive Measures

- i. Regular physical exercise.
- ii. Avoid smoking and alcohol consumption.
- iii. Avoid foods that contain caffeine.

## 8. Non-Medicinal Treatments to Get Relief from Pain of Dysmenorrhea

- (i) Lying on the back and supporting the knees with a pillow.
- (ii) Holding a heating pad or hot water bottle on your abdomen or lower back.
- (iii) Taking a warm bath
- (iv) Gently massaging the abdomen
- (v) Mild exercises like stretching or walking to improve blood flow and reduce pelvic pain.

## 9. Conventional Treatments and Its Limitation

(i) Non-Steroidal Anti Inflammatory Drugs (NSAIDs) such as Iboprufen, Cataflam, Diclofenac, Ketoprofen, Meclofenamate, Mefanamic acid, Naproxen and Aspirin etc. act as prostaglandins inhibitors to give relief from menstrual pains [13].

But, use of NSIADS 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.

(ii) Oral contraceptives: OCs 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, nausea, anxiety, loneliness, weight gain, acne etc.

(iii) Surgical interventions – Surgery may be used to treat the dysmenorrhea but it is costly, uncomfortable and various complications may be developed after surgery.

## 10. General Principle of Treatment (USOOLE ILAJ)

Treatment of usre tams (dysmenorrhea) is based on 4 aspects;

- (i) Ilaj bil Ghiza (Dietotherapy)
- (ii) Nafseeeyati (Psychotherapy)
- (iii) Ilaj bil Dawa (Pharmacotherapy)
- (iv) Ilaj bil Tadbeer (Regimental therapy)

### 10.1. 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, murgh 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. [24, 27].

### 10.2. Nafseeyati (Psychotherapy)

Prompt psychological counseling 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.

### 10.3. Ilaj Bil Dawa (Pharmacotherapy)

#### Warmi Usre Tams

(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), Arqe-gauzeban (*Borago officinalis* linn.) (120 ml) should be given with 20 ml of Sharbate Nilofer. [25].

#### Tashannuji or Spasmodic Usre Tams

(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 [25].

#### Gheshae or Membranous Usre Tams

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 [25].

**Suddi / Obstructive Usre Tams**

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

**Mubaizi or Ovarian Usre Tams**

- (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 Ambary 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 [27].

**10.4. Ilaj-Bil- Tadbeer (Regimental Therapy)**

Ilaj-Bil-Tadbeer (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.
- Heat Application: Apply heat to external genitalia or abdomen by burning of concoction of wine, fennel (a perennial plant of the genus *Feniculum*) and rose oil. Other method for applying heat on lower abdomen includes hot compress, heating pads and hot water bottles.
- Dalak (massage): Massage on lower abdomen with aromatic oil as gives relief from pain of dysmenorrhea. [11, 14, 16, 25, 27].

### 11. Herbal Drugs Effective in Dysmenorrhea

Abhal (*Juniprus communis* linn.), Asarun (*Asarum Europaeum* linn.), Sonf (*Pimpinella anism* linn.), Asgand (*Withania somnifera* Dunal), Amaltas (*Cassia fistula* linn.), Annanas (*Bromeliacace*), Elva (*Aloe barbadensis* Mill), Babuna (*Matricaria chamomilla* linn.), Bakain (*Melia azedarach* linn.), Bandal (*Luffa echinata* Roxb), Parshioshan (*Adiantum capilus veneris* linn.), Podina (*Mentha arvensis* linn.), Khare khask (*Tribulus terretris* linn), Hulba (*Trigonella foenum graecum* linn), Hilteet (*Ferula foetida* Regel), Kalonji black seed (*Nigella sativa* linn.), Mushtar Mashi (*Menthas pulegium* linn.), Neem (*Azadirachata indica* A. Juss), Darchini (*Cinnamomum zeylanicum* Blume), Qust (*Saussurea lappa*) and Ginger (*Zingiber officinale* Rose) etc.

### 12. Unani Pharmacopoeial Formulation Used In Management of Usre Tams

- (i) Sharbat Bazoori Motadil
- (ii) Qurs Kafoor
- (iii) Habbe Mudire Haiz
- (iv) Habbe Rewand
- (v) Safoof-e-Mudire Haiz
- (vi) Dawa Mudire Haiz
- (vii) Dawae Ussurttams
- (viii) Dawae Mudir
- (ix) Kushta Sadaf

### 13. Conclusion

Dysmenorrhea is a common gynecological disorder in women of reproductive age and it refers to painful menstruation. Because of the known side effects of the conventional medicines and the long history of the effectiveness of unani drugs and its compound formulations in treatment of usre tams, the unani system of medicine can be good alternative to treat the disorders such as dysmenorrhea because the unani drugs have no side effect on the human body. It is need of time to maximize and generalized this line of treatment for dysmenorrhea. 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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