

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Review Article
ISSN 2394-3211
EJPMR

PRIMARY DYSMENORRHOEA AND ITS MANAGEMENT IN UNANI SYSTEM OF MEDICINE

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Article Received on 14/02/2018

Article Revised on 06/03/2018

Article Accepted on 26/03/2018

ABSTRACT

Usr-e-Tams (Dysmenorrhoea) is one of the most common prevailing gynecological problems, suffered by almost half of all female adolescents with a prevalence of 60% to 93%, and a major contributor of short term school and recurrent work absenteeism, about 600 million work hours and worth 2 billion dollars annual economic loss has been reported in united states due to the problem of primary dysmenorrhoea. In Unani system of medicine, dysmenorrhea is described under the heading of Usre Tams. Unani physician, Ibn-e-Sina has stated that this obstruction occurs due to the temperamental changes leading painful menstrual flow, According to Greek philosopher Hippocrates, dysmenorrhoea occurs due to cessation of menstrual blood flow. There are many studies that have shown that dysmenorrhoea had a failure of 20-25% in conventional treatment, So People are looking for other safer options. In unani system of medicine herbal drugs, compound unani formulations and various traditionally therapeutic options like dalak (massage) Ab-e-zan (sitz bath) and hijamah bila shart (dry cupping), has been mentioned for its management purposes. Aim of this paper is to highlight the importance of management of dysmenorrhea.

KEYWORD: *Hijamah bila shart, Usr-e-Tams*, traditionally therapeutic options.

INTRODUCTION

The word Dysmenorrhoea is derived from a greek word which means "difficult menstrual flow" is one of the most common prevailing gynecological problems, suffered by almost half of all female adolescent or school/college going girls; it is hampering their day-today activities and leading a no. of absentees among this population.^[1] The complaint is of painful cramping sensation in lower abdomen, other of the associated symptoms involved sweating, tachycardia, headache, nausea, vomiting, occurs before the menstrual flow starts. [2] It broadly can be classified as primary dysmenorrhoea can be explained as the painful menstrual cramps occurs without the involvement of any visible pelvic pathology, mostly occurs in girls or women aged 20 year or less once after the ovulatory cycle has been established, [3] prevalence is highest in adolescence and mountains high during 20-24year of age, [4] its pain commences few hours before or after the onset of menstruation and may last up to 24-48 hours. The pain mainly felt in lower abdomen but may radiate to lower parts of thigh.^[5] Although it is not a life threatening problem but enhance or negatively affect the quality of life in females, its being one of the major contributor of short term school and recurrent work absenteeism, [6] according to a study of Raine-Fenning, 2005 it is found that 600 million work hours and worth 2 billion dollars annual economic loss has been reported in united states due to the problem of primary dysmenorrhoea, [7] whereas in, Secondary dysmenorrhoea menstrual pain is associated with some underlying pelvic pathology, and its onset may be years after menarche. It can be caused by a number of disorders such as endometriosis, pelvic inflammatory disease, intra-uterine devices, irregular cycles or infertility problems, ovarian cysts, adenomyosis, uterine myomas or polyps, intra-uterine adhesions, or cervical stenosis. [8]

Historical background

The word Dysmenorrhoea means-painful menstrual flow (derived from a Greek word dys; means difficult, painful, abnormal, 'Meno' means month and rrhoea means 'flow'.) In unani system of medicine it is known as usree-tams, many unani physicians had explained about its causes as well. According to Ibin Sina Usre-e-Tams occur due to the obstruction in menstrual blood flow and accompanied with *Waja-uz-Zuhar* (low back pain), he also stated that for a regular menstrual flow the quality and quantity *khilt-e-dam* should be in moderation, as irregular and abnormal flow may lead to other problems. ^[9]

In conventional medicines number of treatment methods could be found for this like use of NSAID'S, hormonal

preparations (OCP's) or surgery if the underlying cause involve with some kind of pathology, but these methods also found to have a failure rate of 20-25% and so people wants to find some other alternative to treat the problem so many women's even seek for other complementary and alternative methods, like Acupuncture, spinal manipulation, heat therapy (application of hot water bottle over the abdomen or lower back), behavioral intervention, herbal and dietary therapy,^[10] warm baths, and even doing stretching or isometric exercise in order to improve the blood supply and relieve the pain.^[11]

In classical text of unani medicines cupping has been found as one of the classical procedure for management of pain, Cupping is such a safe, cost effective, non invasive and easily available, having a long lasting effects method to manage the pain, hijamat bila shurt or dry cupping over umbilicus has been used to relieve the colicky pain in gaseous distension and during menstruation, *Zakariya Razi* has also advised dry cupping (hijamah), dalak (massage) and sitz bath in his famous treatise Al-Hawi-Fil-Tib as a management for dysmenorrhoea

Classification of Dysmenorrhoea

- Spasmodic for primary dysmenorrhoea (Usre Tams Tashannuji)
- Congestive or secondary dysmenorrhoea (Usre Tams Iltehabi)

Primary Dysmenorrhoea

Primary dysmenorrhoea means presents of recurrent crampy lower abdominal pain that occurs during menses in the absence of any pathological conditions and found to occur in a year or two of the first puberty. [12]

The most prevalent risk factor for dysmenorrhoea found to be in women are being obese, use to smoke, having high social economic status and being in depression and anxiety, Multiple other factors may also play a role in the perception and severity of the pain. Age as a determinant of menstrual pain which symptoms found more pronounced in the younger girls than older women, there is some evidences that shows that the intensity of the pain will be higher in nulliparous women as compares to a parous, another study shows that it also has been associated with increased exposure to environmental tobacco smoke. [13]

Patho-Physiology

Although the etiology of dysmenorrhoea is not fully understandable but the cause of pain is found to be due to the production of prostaglandins in the endometrium during ovulation cycles, there are some report which shows that the level of prostaglandin F2 α , measured in natural fluid from the tampons and found to be twice higher in the women having dysmenorrhoea as compared to the women's that do not have dysmenorrhea. ^[14]

Studies Suggestive of Causative Factor for Dysmenorrhoea

Another study by Knaus (1929) and Moir (1933-34) and some other investigator also shows that the pressure throughout the menstrual cycle concluded that when intrauterine pressure reaches to about 80-100 mmHg, then patient experience the pain and muscle ischemia and is suggested as a causative factor for it. And in 1965 pickles et al Who founded higher levels of prostaglandin F2 Alpha and prostaglandin E2 in women with primary dysmenorrhoea compared with those women having pain free periods so they recognise involvement of prostaglandin synthesis inhibitor as a treatment modality another study founded that prostaglandin synthesis inhibitors can be provided as symptomatic relief in cases of primary dysmenorrhea. [15]

According Greek philosopher Hippocrates, to dysmenorrhoea occurs due to cessation of menstrual blood flow, secondarily due to cervical obstruction, but if the flow remains balanced in quantity and regular then it doesn't take place. Ibn-e-Sina has stated in his treatise Al-Qnoon-Fit-Tib that this obstruction occurs due to the temperamental changes leading painful menstrual flow. According to Hakim Ajmal Khan it is caused due to the formation of galeez-khoon in the body and in order to expel out that galeez-khoon uterus undergoes forceful contraction and leading to pain. [16] Abu-al-Majoosi and Ibn-Hubal have mentioned painful menses with amenorrhea and described that scanty flow menstruation accompanied with pain, in their legendary books kamil us sanaa (complete book of medical art) and Kitabul Mukhtarat fil tib. [17,18]

Other etiological causes of waje rehm, Usre tams described in the classical text of Unani medicines by many Unani scholars as sue mizaj (distepaerament) warm-e-rahm (inflammation of the uterus) zof-e-rahm (weakness of uterus) ulcers of uterus whitish vaginal discharge previous diseases of uterus amenorrhea

Incidence

According to maitre shah et al. the rate of prevalence was 45% in nursing college girls in a tertiary care hospital of central and south gujrat, India. Out of which 18% of student suffered with mild intensity of pain whereas 40% had moderate and 42% had severe intensity of pain. Dysmenorrhoea has been estimated to be the greatest cause of time lost from work and school in the United States. [19]

The prevalence of dysmenorrhoea is not easy to determine because of its different definitions, and the estimates varies from 45% to 95%. [20] A recent systematic review of the world literature on chronic pelvic pain reports prevalence of dysmenorrhoea ranging between 17% and 80%. [21] Prevalence studies also have shown several other factors that are associated with dysmenorrhoea like body mass index (BMI), smoking,

early menarche, prolonged menstrual flow and psychological disturbances. [22]

The true prevalence of primary dysmenorrhoea is not yet clearly established in India. A dysmenorrhoea prevalence of 33.5% among adolescent girls in India was reported by Nag. [23] George and Bhaduri found dysmenorrhoea to be a common problem in India with prevalence of 87.7%. [24] Similar findings had been reported by Jayashree and Jayalakshmi in rural married women of Andhra Pradesh. [25]

Primary dysmenorrhoea occurs in women of all ages, but usually begins during adolescence, with an estimated prevalence of 40%-50%. Primary dvsmenorrhoea typically presents in the adolescent years roughly six to 12 months after menarche, usually when regular ovulatory cycles are established. Overall, Primary dysmenorrhoea may affect 40%-90% of women. In addition to physical pain, the patient's quality of life is often affected. One in 13 sufferers is incapacitated to work for one to three days per month, which affects their work and school attendance and makes dysmenorrhoea the leading cause of school absenteeism among adolescents. Symptoms vary from person to person: may include dizziness and syncope, cramping, nausea, vomiting, diarrhea, headaches, and fatigue; and may last up to 72 hours. [26]

Management of Dysmennorroea Prevention

- ➤ General measures for the improvement of the general health should be taken.
- Standard diet chart should be given to the patient. If the patient is overweight, reduction of the weight is valuable by avoiding high calories such as potato, rice, ghee, butter, sweets cold drinks etc. If the patient is underweight, weight gain should be achieved by following the standard diet chart.
- ➤ Daily walk, usual activities including sports should be continued. [12, 27]
- For the correction of anaemia Kushta Faulad, Sharbat e Faulad, sharbat Anara Shirin, Maa uz Zahab can be used. [28]
- > Assurance to the patient.
- **>** Bowel should be kept empty.

Conventional Treatment and It's Limitations 1. Analgesics (NSAIDs) and antispasmodic drugs

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.

But, use of NSIADS for prolonged period causes gastrointestinal bleeding and ulcers, risks of heart attack, stroke hepatic and renal failure. Prolonged use of NSAIDs may have adverse effects such as Nausea, vomiting, diarrhea, constipation, decreased appetite, rashes, dizziness, headache, mental confusion, drowsiness, thrombocytopenia, hemolytic anemia, angioedema etc.

2. Oral contraceptive Pills

Oral contraceptives acts by reducing menstrual fluid volume through suppression of endometrial tissue growth, giving rise to reduced prostaglandin levels. But, OCPs may have adverse effects such as mood-changes, nausea, fluid retention, breast tenderness, headache, nausea, anxiety, loneliness, weight gain, acne, cholasma, pruritus vulvae, carbohydrate intolerance, precipitation of diabetes and pulmonary thrombosis, coronary and cerebral thrombosis leading to myocardial infaction, hypertension, raised plasma HDL/LDL ratio etc. [29,30,31]

3. Surgical treatment

- a. Dilatation of the cervix
- b. Injection of the pelvic plexus
- c. Presacral neurectomy

Limitations of these surgical procedures are that they are uncomfortable, expensive, leading various complications. [29,12,31,30]

Scope of Unani Treatment

There are studies that have shown that primary dysmenorrhoea had a failure of 20-25% in conventional treatment, and so peoples are directing more towards others options available like the use of complementary and alternative medicine (CAM) has elevated in past 7 decades, peoples are looking for other safer traditionally therapeutic options that do not cause any ill-effects to them and provide them a safer mode to get rid of the pain. Therefore the Unani System of Medicine can play an important role in the management of Dysmenorrhoea by the *ilaj bil dawa* as well as by *ilaj bit tadabeer* which is safe, effective and based on historical evidence of their prolonged and successful use.

Unani Treatment

Ilaj Bil Dawa (Treatment through Medicines)

- 1. 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 (Cassiafistula 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.
- 2. 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.
- 3. Hab e Mudir 1 pill thrice a day should be given with fresh water 3 days before the onset of menstruation and should be stopped when the menstruation starts.
- 4. Decoction of Gul e Babuna, Mako e Khushk, Qaisom, Marzanjosh 12 gm each, should be

Used as douch.

- 5. For membranous dysmenorrhoea, decoction of Chiraita, Beekh e Badyan, Beekh e Kapas 7 gm each with Sharbat e Bazoori 50ml is very effective.
- 6. If dysmennorrhoea is associated with constipation Hab e Tinkar should be given with lukewarm water at the bed time.
- 7. For the Congestive Dysmenorrhoea decoction of Abhal (Juniprus 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.
- 8. Prepare decoction of Abhal, Barg e suddab, Satar Farsi, Gul e Babuna, Akleel Ul Mulk Podina Khushk, Tukhm e Shibbat, Marzanjosh and Tukhm e Karafs each 9 gm in 1 lit of water. After that, add 15 lit water and allow the patient to take sitz bath for 15 minutes in this.
- 9. If the patient is overweight and her temperament is *damwi*, purgative should be given 2 to 4 days before menstruation.
- 10. Make the powder of musturd and add it in the tub filled with hot water ask the patient to take sitz bath in this.
- 11. Make the decoction of Gul e Tesu and Post Khashkhas, dip the phalalen cloth in this decoction and use as *Takoor*.
- 12. If dysmenorrhoea is associated with anaemia and general debility, Kushta Faulad 1 pill mixed in Dawa ul Misk Motadil Jawahar Wali (5 gm) or Khamira Abresham Hakeem Arshad Wala (5 gm) should be given. [32,28,33,30]

Some herbal drugs, which are effective in spasmodic dysmenorrhoea

- 1. Balcharea (Nardostachys jatamansi)
- 2. Saunf (Foeniculum vulgare)
- 3. Lehsun (*Allium sativum*)
- 4. Qust (Saussurea lappa)
- 5. Hilteet (Ferula asafoetida)
- 6. Izkhar (Andropogon jawarancusa)
- 7. Asrol (*Rauwolfia serpentine*)
- 8. Siyah mirch (Piper nigrum)
- 9. Amaltas (Cassia fistula linn.)
- 10. Annanas (Bromeliacace)
- 11. Elva (Aloe barbadensis Mill),.),
- 12. Parshioshan (Adiantum capilus veneris linn.),
- 13. Khare khask (Tribulus terretris linn),
- 14. Hulba (Trigonella foenum graecum linn)
- 15. Kalonji black seed (Nigella sativa linn.),
- 16. Mushtar Mashi (Menthas pulegium linn.),
- 17. Ginger (Zingiber officinale Rose) etc.

Some herbal drugs, which are effective in congestive dysmenorrhoea

- 1. Babuna (Matricaria chamomilla)
- 2. Kasus (Cuscuta reflexa)
- 3. Podina (Mentha arvensis)

- 4. Dalchini (Cinnamomum zeylanicum)
- 5. Tarmas (Lupinus albus)
- 6. Hasha (*Thymus serphyllum*)
- 7. Abhal (*Juniprus communis*)

Unani Pharmacopoeial Formulation Used In Management of Dysmenorrhoea

- 1. Habbe Mudire Haiz
- 2. Safoof-e-Mudire Haiz
- 3. Dawa Mudire Haiz
- 4. Dawae Ussuruttams
- 5. Tiryaqe farooq
- 6. Dawae Mudir
- 7. Sharbat Bazoori Motadil
- 8. Ours Kafoor
- 9. Habbe Rewand
- 10. Kushta Sadaf

Ilaj bil Tadabeer (Regimenal Therapies)

- 1. Venesection (Fasad) before menstruation of Rag e Safin can be done.
- 2. Leeching (application of leeches): Over the both thighs
- 3. *Post-e-khaskhas* (12gm) and *gul e tesu* (25 gm) boiled with two liter of water should be used as fomentation on the lower abdomen to reduce the severity of the pain.
- 4. 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.
- 5. Zimad (paste): Tukhme sabat, Satar farasi, Murmakki, Qust talk, Measaila, Tukhme karafs, and Shahm e hanzal (6 gm each) should be grinded with green Mako and added with castor oil (12 gm) to make paste. Luke warm paste should be applied on the lower abdomen.
- 6. *Humool* (pessary): Mur (6 gm), Suddab (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.
- 7. Heat Application: Apply heat to external genitalia or abdomen by burning of concoction of wine, fennel (a perennial plant of the genus Foeniculum) and rose oil. Other method for applying heat on lower abdomen includes hot compress, heating pads and hot water
- 8. *Dalak* (massage): Massage with aromatic oils over lower abdomen helps to relief from pain of dysmenorrhea.
- 9. Hijama bila shurt (dry cupping) over the umbilicus removes the blood and fluid from the site of inflammation to give relief from the menstrual pain. There are several studies that quote the efficacy and safety of dry cupping on pain intensity in patients of dysmenorrhea. [28,31,30,34,13,35]

CONCLUSION

Dysmenorrhea is a common gynecological disorder in females of reproductive age. In classical Unani literature, dysmenorrhoea is discussed under different names.

Because of the known side effects and toxicities of NSAIDs, OCPs, and other conventional methods, it is quite obvious that Unani System of Medicine might play an important role in the management of Dysmenorrhoea. Role of several single unani herbs, compound preparations and *Ilaj Bil Tadbeer* (Regimental Therapy) described in ancient unani literature are of great importance. Recent studies also show that Hijamat or cupping is very effective for relief of pain in Usre Tams Tashannuji. So, it might be concluded that pain and related associated symptoms to spasmodic dysmenorrhoea can be relieved and managed by different aspects mentioned by ancient unani scholars.

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