

Pelvic Inflammatory Disease (PID) in Unani System of Medicine: A Review

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ABSTRACT:

Unani System of medicine or Unani tib is a traditional system of medicine practiced in India. Pelvic inflammatory disease is a clinical syndrome representing inflammation of upper genital tract and related structures. It is a major health problem of reproductive age women. Pelvic inflammatory disease (PID) is the most common infections of female reproductive organs, which can occur in sexually active women during the reproductive age and it is an important public health problem. PID is diagnosed in more than one million women each year in United States. It is a polymicrobial infection with the most commonly implicated pathogens being *C. trachomatis*, *N. gonorrhoea* and many other aerobic and anaerobic bacteria like *Gardenella vaginalis*, *E. coli*, *Streptococcus* species etc. The Unani terminology for Pelvic Inflammatory Disease is “Marz e-Warm-e-Hauz-e-Aana”. Although there is no description of ‘Marz-e-Warm-e-Hauz-e-Aana’ (pelvic inflammatory disease). Warm-e-Reham (inflammation of uterus) has been described in classical unani books. In classical Unani text, warm-e-reham (PID) is further subdivided into warm-e-rehamhar and warm-e-rehamsaudawi and if it is not treated adequately, it becomes warm-e-rehamsulb which is difficult to treat. Acceptance due to long history of use and several other benefits Unani system of medicine are gaining popularity. Medicinal plants are being used since long time to treat gynaecological disorders including infection. This article gives a detailed description of Marz-e-Warm-e-Huz-e-Aana including its causes, pathogenesis, pathology, principle of treatment in Unani system of medicine. **Keywords:** Marz-e-Warm-e-Hauz-e-Aana, Pelvic Inflammatory Disease, Warm-e-Reham, Unani Medicine.

I. INTRODUCTION:

Pelvic inflammatory disease (PID) is a clinical condition representing inflammation of infectious etiology of upper genital tract and related structures.^{1,2,3,4,5,6,7} It specifically involves at least the uterus and/or fallopian tubes.⁷ Pelvic inflammatory disease (PID) is one of the major health issues adversely affecting reproductive aged women, worldwide with the annual rate of 10-20/1000 women of reproductive age.^{8,9} The main gynaecological cause of acute lower abdominal pain. Prevalence has been estimated at 927 per 1000 fertile women.¹⁰ It is a polymicrobial infection with the most commonly implicated pathogens being *C. trachomatis*, *N. gonorrhoea* and many other aerobic and anaerobic bacteria like *Gardenella vaginalis*, *E. coli*, *Streptococcus* species etc.^{11,12} Women who acquire PID are at increased risk for late sequelae including chronic pelvic pain, tubo-ovarian abscess, pelvic adhesions, tubal factor infertility, ectopic pregnancy etc.^{8,13} These complication are related to disease severity and time of diagnosis, thus early diagnosis and treatment is essential for diminishing the disease impact.¹⁴

Unani system of medicine, PID can be correlated with warm-e-reham (inflammation of uterus) mentioned in classical Unani literature.^{15,16,17,18,19} It is the disease of sexually active women.¹⁶ This inflammation can involve unq-e-reham(cervix), androon-e-reham (endometrium), anwah-e-reham (adjacent structures like fallopian tubes, ovaries, pelvic peritoneum).^{15,19} After the study of the description of warm-e-reham by different scholars, it was found that Unani physicians have described the inflammation of cervix, uterus, fallopian tubes and ovaries collectively with the name of warm-e-reham. PID is a clinical diagnosis implying that the patient has upper genital tract infection and inflammation which ascends from the vagina and

cervix. It is associated with long-term sequelae like tubal factor infertility, ectopic pregnancy and chronic pelvic pain. The treatment includes both outpatient and inpatient antimicrobial and antibiotics regimens.^{20,21} Every antibacterial drug in modern medicine produces more or less adverse effects in the human body. In present era, everyone tends to become more health conscious and seeks the safer side in respect to treatment. Herbal medicines are gaining popularity because of several advantages such as fewer side effects, better patient tolerance, relatively less expensive and acceptance due to long history of use.^{22,23} The holistic and herbal traditional medicine is now being seen with great interest and hope. Unani medicine is one of them. In conventional medicine, use of antibiotic regime is the definite treatment of PID, which though effective, but produces more or less adverse effects, less tolerable to patient and are expensive also. Moreover, chances of antibiotic resistance and recurrence of disease after the stoppage of medicines.²⁴

HISTORICAL BACKGROUND:

Ebers Papyrus (1550 BC) had several sections concerned to disease of women. Medications were prescribed for pustular eruptions of the vulva and vagina and to disperse the inflammation of these parts.

Galen (131-201 AD) was the first person to use the term "gonorrhoea".

Samar Qandi said warm-e-har and warm-e-sulb mainly occurs in uterus, warm-e-reham specifically occurs in its neck (cervix).

Rhazes (852 AD), Mesue (904 AD) and the Persian Ali Abbas (980 AD) described gonorrhoea, cystitis and inflammation of the testicles.

UNANI CONCEPT:

The description of Marz-e-Warm-e-Hauz-e-Aana (PID) is mentioned under the heading of Warm-e-Reham (inflammation of uterus) in classical books. In classical Unani text, warm-e-reham (PID) is further subdivided into warm-e-rehamhar and warm-e-rehamsaudawi and if it is not treated adequately, it becomes warm-e-rehamsulb which is difficult to treat. Warm is a complex disease comprised of all three types of disorders i.e:

1. Temperamental abnormality with associated humoral abnormality (su-e-mizajmaddi).
2. Structural impairment like deformity in shape, size and position of an organ (su-e-tarkeeb).
3. Loss of continuity of an organ (tafaruq-e-itteasal) because of the collection of the mawadefuzla (inflammatory exudate).^{15,25,26} Warm (inflammation) is the reaction of the body to

morbid matter which may be external as injury, stings, bites, bacteria or internal as deranged humours.²⁷

Rehm (uterus) is usually affected by warm-e-har or warm-e-sulabsaudawi but occasionally can also be afflicted by warm-e-balghami. It is the disease of sexually active women. This warm can involve unqurreham (cervix), androonerehm (endometrium), anwahreham (adjacent structures like fallopian tubes, ovaries and pelvic peritoneum).^{15,16,28,19}

CAUSES (ASBAB):

Asbabebadia (External causes):

Zarbawasaqtareham caused by isqat,^{16,17,18} wiladatkewaqt bad-ihtiyati,^{15,16} usrewiladat,^{16,17,18} kasrat-e-jimah,^{16,18,29} ibteda' jimah, diqwa sil.¹⁶

Asbabesabiqa (Internal causes):

Irteqaemani (as in STD's)¹⁵, ehtebasehaizwa nafas^{15,17,18}, nafakhe rehm¹⁵, imtelawakasrate ratoobat^{15,16}, imtela dam wa safra¹⁶, saudawi madda.^{15,16}

PATHOPHYSIOLOGY:

Warm is a pathological state comprised of sue mizajmaddi (temperamental and humoral abnormality), sue tarkeeb (structural impairment like deformity in shape, size and position of an organ) and tafaruqettesaal (loss of continuity of an organ) because of the collection of the mawadefuzla (exudate/morbid matter).^{15,25,26,27,30,31}

Defect in quwateghaziya (metabolic process) of an organ causes abnormal accumulation of humours and subsequently temperamental abnormality in the effected organ, leading to warm in it. This quwa is affected either by asbabebadia or sabiqa.^{17,25} The putrefying agent can gain entry in the body via many routes (e.g. sexual intercourse or instrumentation in case of warmerehm) and manifests under favourable conditions. To rectify the affliction, tabiyat (power of self-preservation/immunity) increases the blood supply of the effected organ. But the organ is neither able to utilize the nutrition nor able to disperse the blood circulating towards it, that is leading to congestion, swelling, tension and warmth in the effected organ which indicate acute inflammation. Loss of continuity and temperamental abnormality leads to pain, temperamental and humoral abnormality results in vaginal discharge.^{17,25,30,32}

ALAMAAT (CLINICAL FEATURES):

Symptoms: Lower abdominal pain,^{15,25} vaginal discharge,¹⁵ backache,^{15,18,19} malaise, Fever,¹⁹ pain in both the groins,^{15,18,19} pain in both the legs.^{15,18}, dysuria, nausea, hiccups,

decreased appetite, pain and discomfort in epigastrium, Headache, neck pain, pain in eyes, pain in limbs and joints.^{16,18}

In severe PID symptoms are- High fever with chills,^{15,18} palpitation,²⁸ profuse sweating,^{15,18} excessive thirst, retention of urine,¹⁵ constipation,^{19,33} dysentery.¹⁹

Signs:

- 1) Tongue coated¹⁵
- 2) Pulse sagir, zaef, mutwatir (thready and rapid)^{15,17}
- 3) P/V examination: cervix tender.³³

PATHOLOGY:

Warmehar progresses through four stages:

1. Ibteda' (Onset): Humour begins to infiltrate the effected organ and inflammation (hajme warm) starts to appear but the reaction of tabiyat is not evident.³²
2. Tazayud (Progress): The area of inflammation spreads (increase in permeability of vessels causing stasis and oedema). The reaction of tabiyat against the humour becomes evident²⁵ in the form of clinical features of inflammation.
3. Inteha' (Peak): Warm reaches to its peak and undergo no further progression^{25,32}, tabiyat and humour strive against each other.
4. Inhetat (Termination): Tabiyat overwhelms the humour¹⁴ and warm begins to subside, either it completely resolves or undergoes suppuration.^{25,32}

Warm-e-rehamhar (acute PID) manifests with specific as well as associated symptoms due to anatomical proximity of uterus, if not treated adequately, it becomes warm-e-rehamsulb (chronic PID) which is difficult to treat and may further progress to even cancer.^{16,17}

USOOL-E-ILAJ (PRINCIPLE OF TREATMENT):

Use of rade and qabiz drugs in the stage of onset (zamana-e-ibtada') to prevent further progression of warm and to facilitate resolution.^{15,25,32}

Use of muhallilat with qabizat in the stage of progress (zamana-e-tazayud) and gradually tapering the dose of qabizat and increasing that of muhallilat.^{17,25,26}

Use of qabizat and muhallilat in equal doses in the stage of peak (zamanaeinteha').^{17,18,25}

Use of muhallilat and murakhiyat in the stage of termination (zamanaeinhetat).^{15,17,18,25}

Use of muqawwiyatto combat post illness weakness and improve immunity.^{16,34}

ILAJ (TREATMENT):

1. IlajbilGhiza (Dieto therapy)
2. IlajbilDawa (Pharmacotherapy)

3. Ilaj bit Tadbeer (Regimenal therapy)
4. IlajbilYad (Surgical treatment)

IlajbilGhiza (Dieto therapy):

Amount of food intake to be increased gradually to strengthen the body and for repair of wear and tear in disease condition.^{19,25}

Taqleelghiza^{16,35} during the stage of progression to facilitate the body to deal efficiently with morbid matter.^{15,25}

If fasd was performed especially on first day reduced water intake.

Lateef ghiza (easily digestible food) should be advised^{15,16} e.g. baize neem brisht¹⁷, ashe jou³⁶ and goshtechooza prepared as with batwa and chuqander or khobazi.¹⁷

IlajbilDawa (Pharmacotherapy):

Oral administration of decoction of Amaltas and mixture of Arq-e Mako, Arq-e Kasni mixed with Maghz-e FalusKhyarshambar (Pulp of pod of Cassia fistula, Linn.), Roghan-e Badam.³⁷

Oral administration of Joshanda-e Aftimun, when the cause is Sauda (Black bile), Joshanda-e Fawakih, in case of Warm-e-Har (Acute inflammation).³⁷

Sharbatneelofar 24ml added to luabbehdana 3gm, sheeraetukhmekahu, sheeraemagztukhmetarbooz each 7gm prepared in arqeeayat.

Sharbatbanafsha 24ml added to luabgulekhatmi 3 gm, sheeraeunnab 4 gm, sheeraemagztarbooz 6gm and sprinkled khaksi 4 gm over it.¹⁶

Decoction of enabussalab, gulekhatmi, banafsha each 12 ml and add roghanegul, moomsafaid each 24 ml to it.

As muqawwiyat- Decoction prepared from banafsha, barge neelofar, khashkhash in barley water with roghane badam.³⁴

Musakkin-e alamwaDafeTashannujadvia (Analgesic and antispasmodic drugs) like-.Abhal (Juniperuscommunis), Aftimun Hindi (Cuscutareflexa), Asrol (Rauwolfiaserpentina), Afyun (Papaver somniferum), Lehsun (Allium sativum) in case of spasmodic dysmenorrhea.

Muhallilatadvia (Resolvent drugs). Kasni (Cichoriumintybus), Baboona (Matricariachamomilla) Baranjasif (Artemesia vulgaris), Marzanjosh (Origanum vulgare)

Single herbal drugs, which are effective include Balcharea (Nardostachysjatamansi), Saunf (Foeniculum vulgare), Lehsun (Allium sativum), Qust (Saussurealappa), Hilteet (Ferula asafoetida), Izkhar (Andropogonjwarancusa), Asrol (Rauwolfiaserpentina), Siyahmirch (Piper nigrum), Babuna (Matricariachamomilla), Kasus (Cuscutareflexa), Podina (Menthaarvensis),

Dalchini (Cinnamomumzeylanicum), Turmas (Lupinusalbus), Hasha (Thymus serpyllum), Abhal (Juniperuscommunis).

Effective Compound formulations: Majun-e Dabidul-Ward 7gm in quantity is taken orally in the morning³³, Safuf-e Lajward, Majun-e Najah in 5-10gm quantity in case of Waram Sulb³⁷ and use Qurs-e Kaknaj in 5gm.^{37,38} MajoonSuparipak, MajoonMocharas, Tiryaqefarooq, MarhamDakhiloon, Dawa-e-Mudir, etc

Ilaibil Tadbeer (Regimenal therapy):

Nutool (Irrigation): Luke warm water with roghane gul^{16,19}, or Aabegulesurkh.

Baboona,akleelulmulk and khatmi.^{16,39}

Sharab with roghanegul, Zimad: Zoofa, cherbi, roghanezard, magzesaqa gauzan.¹⁶

Zimad:Baboona, nakhuna, alsii, baizamurg, zafran; prepare the paste and applied over the pelvis.³⁴

Decoction of poste khashkhash, gulesurkh, isapghol with roghanegul and sirka.¹⁶

Baboona, khatmi, akleelulmulk

Akleelulmulk, baizamurg, zafran and roghanenardain.

Abzan (Sitz bath):Usara bartang¹⁸, Aabshireen and roghanegul.

Decoction of methi, tukhmekatan, tukhmekhatmi, brinjasif.¹⁹

Humool (Pessary):Ardjou, enabussalab, gilearmani, rasuat, sandalain, jadwar prepared in aab-e- enabsalabsabz and aabekishneezsabz.

Decoction of khatmi, tukhmekatan, gokhru, harmful, bartang and khurfa.¹⁶

Emesis (qai) is beneficial.^{15,34}

Purgation (ishal)¹⁵ to facilitate ikhrajemadda.

IlaibilYad (Surgical treatment): Venesection of rage basaleeq (basalic vein) to prevent tzayyud warm (progression of inflammation) followed by that of rage safan (saphaneous vein) to resolve the existing inflammation.^{15,16,35,40}

Experimental studies: Clinical studies conducted on women suffering from PID demonstrated that Unani drug (Arq-e-Brinjasif) was effective in ameliorating the symptoms of warm-e-reham, thus can be safely used in its management.⁴¹

Arq Brinjasif⁴²: It is a hydro distillate of six single drugs such as:

Brinjasif (Achilleamillefolium Linn)⁴³, Badiyan (Foeniculum vulgare Mill)⁴³, Mako (Solanum nigrum Linn)⁴³,Tukhme kasni (Cichoriumintybus Linn)⁴³, Jhau (Tamarixgallica)⁴³, each 150g and Afsanteen (Artemisia absinthium Linn)⁴³75g.

ARQ:Advia which is insoluble in water, when mixed with water. It is obtained by the process called amal-e-taqteer (steam distillation).

UNANI NAME	SCIENTIFIC NAME	TEMPERAMENT (MIZAJ)	PART USED
1.Biranjasif	Artemisia vulgaris	HarYabis	Flowering tops
2. Afsanteen	Artemisia absinthium	BaridYabis	Stem
3. Tukhm-ekasni	Cichoriumintybus	HarYabis	Seed
4. Badiyan	Foeniculum vulgare	HarYabis	Fruit
5. Barg-e-jhao	Tamarixdioica	HarYabis	Leaf
6. Makokhushk	Solanum nigrum	BaridYabis	Fruit
7. AabSadah	Purified water	-	Liquid

Method of preparation:

Take all the ingredients of pharmacopeial quality. Clean and dry the ingredients under shade. Crush the ingredients in an iron mortar to obtain coarse powder. Soak the coarse powder of ingredients in water over night. Transfer the soaked

material into distillation plant along with water. Distil the soaked material to get 7.5 of Arq. Collect and store the distillate in tightly closed containers to protect from light and moisture.

Advantages of Arq: The arq is lateef, easily metabolised and hence used as badrqa.⁴⁴

Action of Arq-e-BrinjasifMohallil-e-Auaram (Anti-inflammatory)^{45,46,47}, Anti-Microbial⁴⁸ Antioxidant^{46,48}, Analgesic⁴⁹, and it used in Waram-e-Jigar (Inflammation of the liver), Waram-e-Meda (Gastritis) and Waram-e-Ama (Inflammation in intestine).

II. CONCLUSION:

Pelvic Inflammatory Disease (PID) is a very common problem among young females in reproductive age group with social stigma of infertility attached with it. The causes, clinical features and pathology of “Warm-e-Reham” described by Unani scholars seem to be similar to that of Pelvic Inflammatory Disease (PID). In conventional medicine, Marz-e-waram-e-hauz-e-ana is managed by multiple broad spectrum antibiotic regimens for the proper coverage of the involved pathogens. However, its clinical cure rates are very less and recurrence is very common. On the other hand, Unani System of Medicine involves a number of drugs of plant and mineral origin drugs against urogenital infections. Unani medicines have been used as a safe, effective and economical alternative to drugs presently approved for symptomatic treatment of Marzwaram-e-hauz-e-ana.

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