MANAGEMENT OF WAJA UL MAFASIL (ARTHRITIS) IN UNANI SYSTEM OF MEDICINE: A REVIEW

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ABSTRACT
Arthritis is described in Unani system of medicine under a broad term Waja-ul-Mafasil which encompasses entire joint disorders like inflammatory, non-inflammatory, infectious, metabolic and other musculoskeletal disorders. With the advent of science and technology, modern classification has separated these individually according to their etiopathology. On deep insight of Unani literature, arthritis can be correlated with various types of Waja-ul-Mafasil in resemblance to the predisposing factors, aggravating factors and pattern of joint involvement. According to Unani concept, the pathological changes in the joints are caused mainly by derangement of humoural temperament and accumulation of Mawad-e-Fasida (Morbid material) in the joint spaces. The derangement of humoural temperament may be simple, causing only functional disturbance of articular surfaces, or it may be compound in which organic disturbance and quantitative changes take place in the joints. The main principles of treatment in Unani system of medicine include Ilaj (Therapy), Istifraagh (Pharmacotherapy). All the said principles are recommended for the treatment of Waja-ul-Mafasil. The principles of management of different varieties of Waja-ul-Mafasil differ from one another. The aim of treatment for patient with Waja-ul-Mafasil is to reduce morbidity and disability. The principle of treatment aims at restoring the normal temperament, and correcting the imbalance in the Khilt (humour) through Imala (Diversion of morbid material) and Istifraagh (Evacuation of morbid material).

Keywords: Waja-ul-Mafasil, Humours, Morbid material, Imala, Tanqiya

INTRODUCTION
Waja-ul-Mafasil is a compound Arabic word, comprised of two words, Waja and Mafasil. Waja (plural Auja) is an infinitive word which literally means pain or ache. Mafasil (singular mafsal) is an adverb of place which literally means joint. So the literal meaning of Waja-ul-Mafasil is joint pain. The history of Waja-ul-Mafasil is as old as the history of human being. It is said that even dinosaurs were afflicted by this disorder, whose history dates back 100 million years. Great historical personalities like Alexander the great (356-323 BC), Charlemagne (742-814), Henry VI (1165-1197) and Goethe (1749-1832) were also having this disorder. This disorder is well described in the old Egyptian, Persian and Roman classical medical literature. Waja-ul-Mafasil is one of the diseases that have been elaborated thoroughly in the Unani classical literature. Hippocrates presented the first compendium on the disease known as Kitab-ul-Mafasil, while as Dioscorides (70 AD) described the disease in detail in his book Kita-ul-Hashaish. Rufus (117 AD) prepared the next compendium on the disease having title Kitab Auja-ul-Mafasil, while as Galen (129-217 AD) discussed the disorder in his book Kitab-ul-Elal-wal-Amraz. Feel Gharyoos (465 AD) has written treatises with the name of Risala Fee Iqrun Nisa and Risala Niqras. Yuhana Bin Mas’wa’i (812 AD) in his books Kitab-ul-Kamal wa Tama and Al Mushajjar ul Kabir, and Sabit Bin Qarrah (836 AD) in his books Auja-ul-Mafasil and Kitabul Dhakheera Fee Ilm-ut-Tib described the causation and line of treatment in detail. Humna Bin Ishaq (838 AD) in his book Tarkeeb-ul-Advia, Rabban Tabari (898 AD) in Firdaus-ul-Hikmat, Majoosi (930 AD) in Kamil-Sina’ah, Razi (930 AD) in Kitab-ul-Hawi, Nooh-ul-Qamar (990 AD) in his book Ghena Muna, Masisi (1010 AD) in Kitab-ul-Miah and Ibn Sena (1037 AD) in Al Qanoon described the disease is curable in initial stage, but on chronicity, it can only be relieved. Jurjani (1137 AD) in Zakheera Khwarzam Shahi, Ibn Zahr (1162 AD) in Kitab-at-Taiseer, Ibn Rushd (1188 AD) in Kitab-ul-Kulliyat, Mooosa Bin Maimoon (1214 AD) in Al Fusool, Samarqandi (1232 AD) in Al-Asab-wal-alamat and Nafeen Bin Ewaz Kirmani (1500 AD) in Sharah Asab-wal-Alamat discussed the etiology, pathogenesis and principles of treatment in detail.1,2

Definition
According to Ibn Sena, “Waja-ul-Mafasil is the pain of joints which includes Niqras (Gout), Iqr-un-Nisa (Sciatica) and other types of joint pains.” Zakariya Razi adds to this definition that, “Waja-ul-Mafasil is one of those disorders which occur in the form of recurrent or paroxysmal attacks.” He further adds that this disease is caused by the accumulation of excessive fluid (Rutubat).2,12

According to Alama Najeed-ud-Din Samarqandi, “Waja-ul-Mafasil is that pain and inflammation which is developed in the joints of the organs.” Alama Nafeen elaborates this statement that this condition occurs in the remaining structures of joints like synovial membrane, cartilage, ligaments, tendons and muscles.10

Ismail Jurjani states, “When the morbid material is accumulated in the joints of organs and results in the inflammation and pain, it is called Waja-ul-Mafasil.”
Classification of Waja-ul-Mafasil

Waja-ul-Mafasil has been classified by the eminent Unani physicians on various criteria, which are given under:-

- Depending on the severity of clinical features and duration of disease: I. Haad (Acute) II. Muzmin (Chronic)
- Depending on the humoral derangement: I. Har (Hot) II. Barid (Cold) III. Yabis (Dry)
- Depending on the type of Ma’dda (Morbid material), Waja-ul-Mafasil Ma’ddi can be further classified as: I. Waja-ul-Mafasil Damvi (Sanguinous) II. Waja-ul-Mafasil Safravi (Bilious) III. Waja-ul-Mafasil Balghami (Phlegmatic) IV. Waja-ul-Mafasil Saudavi (Melancholic)
- Waja-ul-Mafasil Murakkab is further divided into: I. Waja-ul-Mafasil Safravi Balghami II. Waja-ul-Mafasil Safravi Saudavi
- Depending on number of morbid materials involved: I. Mufrad (Single due to a single material) II. Murakkab (Compound due to more than one material)
- Depending upon the joint involved: I. Irqu-un-Nisa (From hip radiating downwards) II. Nigras (Ankle and other foot joints) III. Waja-ul-Zahr (Back) IV. Waja-ul-Warik (Hip joint) V. Waja-ul-Rukbah (Knee joint)
- Sometimes it also involves the jaws, ear ossicles and vertebrae and become complicated to be diagnosed.

Prevalence and Asabbb-e-Mu’iddah (Predisposing Factors)

- Age: Young adults are predominantly affected followed by elderly and children.
- Sex: Males are affected more than females and eunuchs are usually not affected.
- Season: The incidence of Waja-ul-Mafasil is more in Rabi (spring) followed by Khareef (autumn).
- Hereditary: Waja-ul-Mafasil may have hereditary patterns usually of maternal origin.
- Ethnicity: Waja-ul-Mafasil may vary in its susceptibility to develop among different ethnic groups.
- Over exhaustion and excessive sunlight exposure: Over exhaustion, hard work, vigorous exercises, excessive sunlight exposure and tiredness aggravate the disease, particularly when there is Omla (congestion).
- Diseases: Qaulanj (Intestinal colic) if treated improperly may precipitate Waja-ul-Mafasil as a result of Imala (diversion) of Mawad-e-Fasida (morbid material) towards the joint spaces. Syphilis and Gonorrhea, frequent Tukhma (dyspepsia) and excessive cold and catarrh also precipitates the disorder. Waja-ul-Mafasil either precipitates or develops as a complication of Hummiyat (fevers). The convalescent people and those who have suffered from chronic disorders with improper treatment also vulnerable to the development of Waja-ul-Mafasil.
- Sudden Cessation of Mustafragat-e-Mo’tada’ (Habitual Evacuants): Sudden Cessation of Istafragat (evacuations) which were done habitually like purgation, vomiting, bleeding in the form of menstruation or bleeding of hemorrhoids; bloodletting e.g., in the form of fasd (Venesection), etc. can precipitate the disease.
- Miscellaneous: Besides the above factors, sedentary life style, Tarak-e-Riyazat (cessation of physical exercise) or Riyazat (physical activity) on Imtila (congestion), overeating and eating on full stomach, excessive intake of sweets or cold and moist diet, excessive drinking and intake of water in the early morning on empty stomach, alcoholism and habitual of continuously being in a state of inebriation, excessive coitus or coitus on full stomach or coitus on Imtila (congestion), exposure to cold, excessive bathing particularly Hammam (Turkish bath) on full stomach or at evening or night, excess of anger, Ham-wa-Gam (being in a state of depression or sadness). In addition, all those causes which lead to the formation of Mawad-e-Fasida (Morbid materials), which include most of the above factors besides some particular diets like Fawakihat-e-Murattiba (Juicy fruits) and various types of sweets in particular Halwa which is a type of sweet.

Etiopathogenesis of Waja-ul-Mafasil

Ibn Sena was first to give detailed description regarding the etiopathogenesis of Waja-ul-Mafasil followed by other eminent physicians. He mentioned in his treatise the following basic causes of Waja-ul-Mafasil:

- Asabbb-e-Fa’ilah, are the factors which directly produce the pathology of articular region and result in pain.
- Asabbb-e-Munfa’ilah, are the factors which indirectly affect the articular region and make the joints vulnerable to accept the morbid material with their subsequent accumulation, that result in organic as well as functional changes of the joints.
- Su-e-Mizaj (derangement of temperament), which maybe Sada or Ma’ddi
- Mawad-e-Fasida (Morbid material)

Su-e-Mizaj (derangement of temperament) may be localized of a particular vital organ like heart or generalized. Su-e-Mizaj may be Mufrad (single), Balgami Kham (immature phlegmatic), Khalis Khooni (pure sanguine), rarely Khalis Safra (pure bilious) and Khalis Riyah (pure gaseous or windy) and very rarely of Khalis Sauda (pure black bile). Murakkab may be Balgam and Safra (phlegm and bile) or Sauda and Safra (black bile and bile) or Khun-e-Safravi (bilious blood) or Khoon-e-Balgami (phlegmatic blood) or Khoon-e-Saudavi (Melancholic blood). The Su-e-Mizaj maybe either Har Multahib (inflammatory and heat producing), Barid Munjamid (refrigerant and consolidate derangement of temperament) or Yabis Muqabiz (discontent and astringent derangement of temperament). The Mawad-e-Fasida...
Generalized and localized symptoms of (morbid material) may be Sada (without involvement of humors, causing only functional changes of articular tissue) or Maadi (with humoral involvement resulting in organic changes in joints), Mufrad or Baseet (single) like Reeh or Murakkab (compound) composed of two, three or four Akhlat (humours). The Ma’dd-e-Fasida (morbid material) may be Dam-e-Mufrad (simple sanguine), Dam-e-Balghami (phlegmatic sanguine), Dam-e-Safravi (bilious sanguine), Dam-e-Saudavi (Melancholic sanguine), Balgami Mufrad (simple phlegmatic), Sudda-e-Balghami Kham (obstructive raw phlegmatic), Murra-e-Mufrat (simple bilious), Safra-e-Balghami (phlegmatic bile) Middah (pus) and Reh-e-Motashabika (pent up gas). Out of these, the most common form of morbid material is Safra-e-Balghami (phlegmatic bile), then Balghami-e-Kham (raw phlegmatic), then Dam (sangine), then Safra (bilious) and rarely by Sauda (black bile).\(^{15,16,28,21,26,30}\)

**Asbab-e-Munfa’ilah**

These are the causes which are related to the structure of the organ, affecting them indirectly with a consequence of susceptibility to the disease. These are:

- Dilatation of the natural passage which may be either congenital or acquired.
- Development of a new unnatural passage due to movement, Tahalhul (dissolution) and Tahalkhul (rarefaction) which may be congenital or acquired.

The affected organ becomes the cause of occurrence of the Waja-ul-Mafasil due to following factors:

- Stable derangement of temperament particularly Barid (cold derangement)
- Zof-e-Uzoo (weakness)
- Zof-e-Uzoo Khilqi (congenital weakness) which is not related to the temperament.
- Intensive absorption of heat particularly when it is supported by movement, other types of pains and external factors.
- As a result of the organ being normally situated lower than other organs, the morbid materials move actively towards it that is the cause of its great incidence in legs and the hip.\(^{13,16,26-29,33}\)

**Clinical Features**

The onset of Waja-ul-Mafasil is usually insidious but in some cases, although rare, acute onset is also mentioned.\(^9\)

Depending on the type of etiology, clinical features vary among different types of Waja-ul-Mafasil, which are summarized below:

**Waja-ul-Mafasil Sada**

This type of Waja-ul-Mafasil is found rarely and is of less duration, and Su-e-Mizaj Har being of lesser duration. It is diagnosed by the absence of the symptoms of Imtilah (congestion) and swelling. The symptoms are relieved by cold or heat exposure.\(^{7,13,21,23}\)

**Waja-ul-Mafasil Damvi**

Generalized and localized symptoms of Galba-e-Dam (sanguine predominance) are present. Affected part reddish, edematous and tender; and symptoms are relieved by cold exposure and venesection.\(^{25,24,32,35,36}\)

**Waja-ul-Mafasil Safavi**

Generalized and localized symptoms of Galba-e-Safr (bilious predominance) are present as yellow discoloration with a red tinge. Joint swelling is smaller as compared to Waja-ul-Mafasil Damvi, while as pain, throbbing and inflammation are more in magnitude. Symptoms are relieved by cold exposure. Besides, there is craving for sour things.\(^{35,35-36}\)

**Waja-ul-Mafasil Balghami**

Generalized and localized symptoms of Galba-e-Balgham (phlegmatic predominance) are present. Affected site will be whitish in color, swollen and cold on touch. Pain and throbbing are minimal. Symptoms are relieved on hot exposure.\(^{3,13,22,24}\)

**Waja-ul-Mafasil Saudavi**

Generalized and localized symptoms of Galba-e-Sauda (melancholic predominance) are present. Affected joint is dusky, hard and cold on touch. Sometimes the color changes to bluish or purplish tinge. Spleenomegaly and increased sexual desire may also be found. Symptoms are relieved on heat and wet (moist) exposure.\(^{13,14,16,38,21}\)

**Waja-ul-Mafasil Reehi**

Joint swelling is nominal with lightness in affected organ. Pain is fleeting and shifting in nature.\(^{13,21,24}\)

**Waja-ul-Mafasil Middi**

Affected joint is extremely hot with having itching, tickling and burning sensation. Symptoms are relieved by cold exposure and worsened by heat exposure.\(^9,13\)

**Waja-ul-Mafasil Murakkab**

Combined clinical picture of the different accumulated humors involved will be present with pain. Symptoms are relieved by either by heat or cold exposure.\(^{9,10,36}\)

**Complications and Fate of Disease**

Waja-ul-Mafasil may complicate in various disorders depending on quality and quantity of morbid materials and the chronicity of the disease. Complications include Tahajur-wa-Salahat-e-Mafasil (ankylosis/ joint stiffness with restricted movements), dislocation, formation of nodule in between joints, joint deformities. Certain systemic complications may also occur though rarely which include pericarditis, endocarditis, myocarditis, pneumonitis, pleurisy, tremors, chorea and mania, but the most dangerous type is meningitis.\(^2,6-7\)

**Line of Treatment**

Principle line of treatment in Waja-ul-Mafasil can be set forth in following manner:

- To relieve symptoms and signs
- Treating the root cause:
  a). Ta’deel-e-Mizaj (correction of deranged temperament) b). Tanqiya-e-Madda/ Istafragat-e-Madda (evacuation of morbid material) via Fasl (venesection), Hijamah (cupping), Munzij-wa-Mus’hil
therapy (concoction and purgatives), Mo’ariqat (diaphoretics), Muddirat (diuretics) and Muqqiyat (emetics).

- Strengthening of Quwat-e-Mudabbira-e-Badan (medeatrix nature), so that it can combat the disease.
- Tabreed (cold sponging)
- Nutool (pouring of decoction of drugs)
- Bukhoor (Vaporization)
- Aabzan (feet bath)
- Riyazat (exercises)
- The affected organ should be given support and toned up.

Management
Main principles of treatment in Unani system of medicine include Ilaj Bil Ghiza (dieto-therapy), Ilaj Bit Tadbeer (Regimenal therapy) and Ilaj Bid Dawa (pharmacotherapy). All the said principles are recommended for the treatment of Waja-ul-Mafasil. The principles of management of different varieties of Waja-ul-Mafasil differ from one another. The aim of treatment for patient with Waja-ul-Mafasil is to reduce morbidity and disability. The principle of treatment aims, restoring the normal temperament in case of Waja-ul-Mafasil Sada, and correcting the imbalance in the Khilt (humour) through Imala (Diversion) and Istifiraq (evacuation) if Maddi Waja-ul-Mafasil. The treatment modalities consist of internal administration of drugs for correction of deranged temperament, elimination of morbid humours (in case of Waja-ul-Mafasil Maddi), anti-inflammatory, analgesic drugs and strengthening of muscles and nerves. In addition a proper regimen regarding diet should be followed besides the abstinence from food which precipitates the disease. Zakariya Razi advised that all the kinds of meat are harmful for the Waja-ul-Mafasil patients and recommended the vegetables. Exercises are recommended and oil massage is also recommended.\textsuperscript{25,37,38} Ibn Sena in his book Al Qanoon writes, treatment of Waja-ul-Mafasil is easy in its initial stages, while it becomes difficult to treat when it becomes chronic.\textsuperscript{2,32}

Various measures of treatment mentioned in Unani literature for the management of Waja-ul-Mafasil can be summarized as under:

- Diversion of morbid material in opposite direction (Imala-e-Mawad)
- Evacuation (Istifrah) of morbid material.
- Toning of Quwwat of affected joints.
- In case of Damvi (Sanguineous) type of Waja-ul-Mafasil, Venesection (Fasd) should be performed followed by emesis (Qai) and purgation (Is’haal).
- Evacuation of morbid material (Tanqiya mavad) should be preceded by concoction (Nuzj) in cases of Waja-ul-Mafasil Balghami and Waja-ul-Mafasil Saudavi.
- Munzij (Concoct) and Mushil (Purgative) therapy especially in Waja-ul-Mafasil Balghami and Waja-ul-Mafasil Safravi.
- Diuresis (Idrar) should be performed in Waja-ul-Mafasil Muzmin.
- Emesis (Qai) is very helpful in Waja-ul-Warik (hip joint pain).

- Analgesics (Mussakinat) should be used both locally as well as systemically for pain relief.
- Hijamah (Cupping) is done for pain relief, whereas wet cupping can be used for both pain relief and evacuation of morbidity material.
- Hijamah (cupping) and Irisal-e-Alaq (leeching) are recommended for Iqr-un-Nisa and if not relieved Amal-e-Kayy (cauterization) should be performed at the affected site. Hijamah is used for the treatment of Waja-ul-Warik (hip joint pain) in the initial course of disease. Besides Hijamat-e-Naryjah (Fire cupping) is beneficial in Waja-ul-Zahar (backache).\textsuperscript{2}
- In case of acute inflammation, vesection (Fasd) should be done in Waja-ul-Mafasil Damvi, whereas Munzij and Mushil therapy should be given in Waja-ul-Mafasil Safravi. In cases of chronic inflammations only Munzij and Mushil should be given.
- Suranjan (Colchicum luteum Baker) is drug of choice and highly beneficial in all types of Waja-ul-Mafasil, can be used both locally as well as internally. It gives relief from pain, strengthens the joints and clears them of morbid materials, narrows the vessels and cavities of joints, which in turn prevents the drainage of morbid materials.\textsuperscript{10,22-24}
- Adviya-e-Harra (hot temperament drugs) and Adviya -e-Mukhaddira (anesthetic drugs) should not be prescribed in the initial course of disease, as they can attract or divert morbid material towards the affected site.\textsuperscript{7,9}
- Amal-e-Kayy (cauterization) is beneficial for the Waja-ul-Mafasil Barid because it is helpful in drying up the Ratubat and Barudat (coldness and fluids).\textsuperscript{7}
- When the Waja-ul-Mafasil becomes chronic, Munfitat (vesicant) drugs are prescribed.\textsuperscript{2}
- According to Razi, animal bones with Suranjan may be used as it subside pain and inflammation.\textsuperscript{2}

Pharmacological Treatment
A large number of drugs, single and compound formulations, have been mentioned in the context of the treatment of Waja-ul-Mafasil. Most commonly used drugs are given as under:

Single drugs (Mufradat)
Suranjan (Colchicum luteum Baker), Bozidan (Tanacetum umbelliferum), Asgandh (Withania somnifera), Filfil Siyah (Piper nigrum), Turbud (Ocurrenula terpethum), Khardal (Brassica nigra Linn), Zanjabil (Zingiber officinale), Sana Maki (Cassia augustifolia), Mako (Solannum nigrum), Haleela Siyah (Terminalia chebula), Kasni (Chicorium intybus Linn), Badiyan (Foeniculum vulgare), Gul-e-surukh (Rosa damascus), Baboona (Matricaria chamomilla), Elva/ Sibr (Aloe barbadensis), Lufah/ Yabrooj-us-Sanam (Atropa belladona), Marzanjosh (Origanum majorana), Muqil (Commpihora muqil), Nakhona (Astragalus hamosus), Qunturyoon (Centauria centaurium), Qust (Saussurea lappa), Saaqmonia (Convolvulus scammonia), Shahatra (Fumaria parviflora).\textsuperscript{13,25,32-33,35-42}
Compound Unani Formulations (Murakkabat)

Unani formulations used for local application

CONCLUSION
Arthritis is described as such in Unani system of medicine but comes under a broad term Waja-ul-Mafasil which encompasses entire joint disorders like inflammatory, non-inflammatory, infectious, metabolic and other musculoskeletal disorders. On deep insight, arthritis can be correlated with various types of Waja-ul-Mafasil in resemblance to the predisposing factors, aggravating factors and pattern of joint involvement. The aim of treatment for patient with Waja-ul-Mafasil is to reduce morbidity and disability. The principle of treatment aims at restoring the normal temperament, and correcting the imbalance in the Khilt (humour) through Imala (Diversion of morbid material) and Istifraagh (Evacuation of morbid material). These objectives are fulfilled by adapting both non pharmacological and pharmacological methods of treatment in Unani system of medicine. Keeping in view side effects of current treatment modalities of arthritis, it can be concluded that Unani mode of treatment provides an alternative method of treatment, being both economical and free of side effects to a maximum level.

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