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Unani aspect of arthritis (*Waja-ul-Mafasil*) & its management: A review

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Abstract

In Unani system of medicine, Arthritis is described under a broad term *Waja-ul-Mafasil* which encompasses entire joint disorders like inflammatory, non-inflammatory, infectious, metabolic and other musculoskeletal disorders. Arthritis is one of the commonest joint disorder affecting millions of people worldwide with an estimated 15% (40 million) of Americans had some form of arthritis in 1995 and by the year 2020, an estimated 59.4 million will be affected. In India it affects 15% (180 million) people. 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. 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). This review article highlight the salient features describing arthritis with reference to *Waja-ul-Mafasil* for empathizing disease condition as enunciated by Unani scholars to provide a better alternative in terms of cost effective managements and side effects by adapting both non-pharmacological and pharmacological methods of treatment.

Keywords: *Waja-ul-Mafasil*, arthritis, humours, morbid material, imala, hijamat

1. Introduction

Waja-ul-Mafasil is an Arabic term, where *Waja* (plural Auja) literally means 'pain' and *Mafasil* (singular mafsal) means 'joints'. So the meaning of *Waja-ul-Mafasil* is pain in joints. It is a painful or inflammatory condition affecting joints, its surrounding muscle and ligaments^[1] and may involve any joint viz; knee, hips, wrists, hands etc^[2-4] with accumulation of *mawade fuzooni* (vitiated matter) in the joints as the causative factor liable for pain and inflammation^[5, 6].

As per Unani literature in human body all bones are inter-related and inter-connected to form joints; articular surfaces of some joints are cartilaginous and possess some intervening spaces which helps them to perform different kinds of movements^[7, 8]. These spaces are filled with *rutubat* (fluid) i.e. *rutubate tajawif* (synovial / interstitial fluid), which act as a lubricant and keep the joint surface consistently moist, so as to prevent from friction^[5, 8]. While the articular surfaces of some joints are non-cartilaginous where consideration of this function is not necessary, a joint is created between two bones without any appendages or intervening space^[5, 7, 8].

1.1 History of *Waja-ul-Mafasil*

Waja-ul-Mafasil is one of the diseases that have been elaborated thoroughly in the Unani classical literature. 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, Unani and Roman classical medical literature^[9]. 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 Irqun Nisa and Risala Niqras*. Yuhana Bin Mas'waih (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 Ilim-ut-Tib* described the causation and line of treatment in detail.

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Hunain Bin Ishaq (838AD) in his book *Tarkeeb-ul-Advia*, Rabban Tabari (898 AD) in *Firdaus-ul-Hikmat*, Majoosi (930 AD) in *Kamilus-Sina'ah*, Razi (930 AD) in *Kitab-ul-Hawi*, Nooh-ul-Qamar (990 AD) in his book *Ghena Muna*, Masihi (1010 AD) in *Kitab-ul-Miah* and Ibne 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 Zuhr (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-Asbab-wal-Alamat* and Nafeen Bin Ewaz Kirmani (1500 AD) in *Sharah Asbabwal-Alamat* discussed the etiology, pathogenesis and principles of treatment in detail [10-20].

2. Definition and Classification of Waja-ul-Mafasil

2.1 Definition

According to Ibne Sena, “*Waja-ul-Mafasi*” is the pain of joints which includes Niqras (Gout), Irq-un-Nisa (Sciatica) and other types of joint pains [15]. 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 (Ratubat) [10, 21]. According to Alama Najeeb-ud-Din Samarqandi, *Waja-ul-Mafasil* is that pain and inflammation which is developed in the joints of the organs. Alama Nafees elaborates this statement that this condition occurs in the surrounding structures of joints like synovial membrane, cartilage, ligaments, tendons and muscles [18]. 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*.

2.2 Classification of Waja-ul-Mafasil

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

2.2.1 According to the severity of clinical features and duration of disease [3, 4, 6, 22]

- Haad (Acute)
- Muzmin (Chronic)

2.2.2 According to Mizaj, Akbar Arzani has classified Waja-ul-Mafasil into 2 types [6]:

- Non inflammatory due sue *mizaj sada*
- Inflammatory due to sue *mizaj maddi*

2.2.3 According to simple altered temperament: In this condition, there is no morbid material involved, there is alteration in *kaefiyat* only, it may be divided into three types [3, 4, 6, 22].

- *Haar multahib* (inflammatory)
- *Barid munjamid* (consolidant)
- *Yabis munqabiz* (astringent)

2.2.4 According to humours (*khilt*): Consideration of the types of *Khilt* (Humours) causing *Waja-ul-Mafasil* (Arthritis) leads to its division into four types [3, 4, 6, 22, 23].

- *Waja-ul-Mafasil Balghami* (Phlegmatic)
- *Waja-ul-Mafasil Damvi* (Plethoric)
- *Waja-ul-Mafasil Safravi* (bilious)
- *Waja-ul-Mafasil Saudavi* (Melancholic)

2.2.5 According to altered temperament with humoral involvement: According to M Azam Khan, the classification has been described on the basis of temperamental imbalance as *Waja-ul-Mafasil Sada*, which is caused by *Su-e-Mizaj Maddi* which is accompanied by the humoral imbalance and is being further divided into 3 types [3, 4, 6, 22, 23]:

- *Waja-ul-Mafasil Mufrad*: This type of *Waja-ul-Mafasil* is caused by the abnormal change in the one of the four humours and has been categorized into; *Waja-ul-Mafasil Balghami*, *Waja-ul-Mafasil Damvi*, *Waja-ul-Mafasil Safravi* and *Waja-ul-Mafasil Saudavi*.
- *Waja-ul-Mafasil Murakkab*: When the change is in more than one humour and at least two humours are involved i.e. *Safra* (Yellow bile) with *Sauda* (Black Bile), *Dam* (Blood) with *Balgham* (Phlegma), *Dam* and *Safra* etc.
- *Waja-ul-Mafasil Reehi*: This type of *Waja-ul-Mafasil* is caused by the *Reeh Ghaleez* literally meaning (Bad Gases).

2.2.6 Classification based on involvement of joint: *Waja-ul-Mafasil* is a general term used either for painful joints of body or specially hands and feet but it can affect wrist, elbow, hip, ankle and knee [22]. Specific name of its various types based on the involvement of joints are [1-8, 23-31]:

- *Irqunnasa* (sciatica)
- *Niqris* (gout)
- *Waja ur rakba* (knee joint pain)
- *Waja uz zahr* (low Back pain)
- *Waja ul warik* (hip joint pain)
- *Wala ul khasera* (buttock pain)
- *Wajs us saqain* (calf pain)
- *Waja ul aqib* (heel pain)

Zakariya Razi considered *Waja-ul-Mafasil*, *Niqras* and *Irq-un-Nisa*, as a disease of the same genus [31]. Ali ibn Abbas Majoosi and other Unani scholars believe that *Waja-ul-Mafasil* can also occur in intervertebral, temporo-mandibular and joints of auditory ossicles [23, 26].

Thus, if all the above information is taken into consideration, there is more comprehensive mention of all the types of the Arthritis in the Unani literature and in those days of life when the avenues were very much less the physicians were able to differentiate the different types of arthritis. There has been very little addition to the types of arthritis in today's modern era when the sophisticated machinery is involved, lot investigations take place and we have modern tools of diagnosis.

3. Aetiology (Asbaab) of Waja-ul-Mafasil as per Unani Classics

According to Sahibe Kamil, the etiology of *Waja-ul-Mafasil* is so obscure and complicated that it is not possible to pinpoint the exact causative factor. According to *Ibne Sina*, the psychic factors play a prominent role in the causation of this disease. Other factors, which are responsible for the disease, include hereditary & joint weakness etc. *Ibne Sina* categorized the etiology of *Waja-ul-Mafasil* into two types [3, 4, 6, 10] viz. *Asbabe fa'ilah* (primary causes) and *Asbabe munfa'ilah* (secondary causes) while another eminent Unani scholar *Ismail Jurjani* in his treatise “*Zakhirae khuwarezam Shahi*” classified as “*Asbabe asli*” and “*Asbabe a'rzi*” [5].

3.1 Asbabe fa'ilah or primary causes

Asbab-e-Fa'ilah, are the factors which directly produce the

pathology of articular region and result in pain. These are responsible for the initiation of *Waja-ul-Mafasil* such as *Sue mizaj* (Maltemperament) and *Mawade fasidah* (vitiating humours/morbid) [26].

According to *Samarqandi*, the *madda* (substance) which is responsible for the cause of *Waja-ul-Mafasil* is of a very thick consistency and white in colour, whereas *Ibne Sina* states that this *madda* almost resembles to pus (*Reem*). The humours responsible for the development of *Waja-ul-Mafasil* may be one or more of the following: *Balgham* (Phlegm), *Dam* (Blood), *Safra* (Yellow Bile) or *Sauda* (Sanguine or Black bile). *Ibne Sina* also mentioned that *Waja-ul-Mafasil* is caused by phlegm, blood, yellow bile and black bile in the decreasing order of frequency as follows [25]:

- *Waja-ul-Mafasil Balghami* is more common.
- *Waja-ul-Mafasil Damvi* is common.
- *Waja-ul-Mafasil Safravi* is less common.
- *Waja-ul-Mafasil Saudavi* is rare.

The *Madda* (Substance) causing *Waja-ul-Mafasil* accumulates in the joints due to the weakness of the joint called as *zauf-e-mafasil* [33]. *Waja-ul-Mafasil* is caused by accumulation of *Mawad-e-Fasida* (Literally meaning Toxic Substances) in the joint which happens due to following factors:

- Joint movement
- Joint space
- Joint fluid

The feature of the joint is that it attracts the fluid (*Ratubat*) towards itself. The joint movement is responsible for this. The *Mawad* moves towards the joint by the movement of the joint and the heat produced by the joint movement. The feature of the heat is that it attracts the fluid towards itself. The joints of the body have no power of absorption (*Quwat-e-Jaziba*) and as the absorption of the fluid according to Unani Physicians depends on the heat and as the bones, cartilage, ligaments, etc. which are the major constituents of the joint are having cold and dry temperament, so the *Khilt* which enters the joint cannot be reabsorbed and thus gets lodged in the joint. Since, the joints does not have the excretory power (*Quwat-e-Dafe'ah*) as well so the bad matter which needs to be excreted gets lodged in the joints and thus leading to disturbances in the joint. The *Khilt* in the joint gets putrefied and gets converted into the harmful products which then induce *Waja-ul-Mafasil* [34].

3.2 Asbabe Arzi or Secondary/Precipitating Factors

These 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. There are total of 7 aggravating factors mentioned in the Unani classics: Giving up the exercise (*Tarke Riyazat*) [27], Weakness of stomach (*Zaufe M'ada*) leading to the absorption of impaired matter [27], Derangement (*Su-e-Tarteeb*) [2], Sedentary life style [2], Regular and excessive use of alcohol [2, 27], Excessive coitus and exercise after meals [2, 27], Cold and catarrh [2]

Other causes of accumulation of bad humours in the joint are as follows [2, 27]: Giving up the voluntary habitual excretion (*Tarke Istefragh-e-Aadati*) e.g. vomiting, purgation, venesection etc.; Cessation of normal involuntary excretion e.g. menstruation, piles etc.; Intestinal colic, Drinking of water on empty stomach; Anxiety, depression, insomnia etc.

4. Pathogenesis (*Mahiyate marz*)

Joints get easily affected with various morbid matters, for the following reasons: Wide joint space as compared to other organs of body [1, 5]; Hypersensitivity due to nerve innervations [1, 2]; *Barid yabis Mizaj* (cold and dry temperament) of joints [5]; *Zaeef hararat* (Feeble heat) of joint [1]; Improper resolution of morbid matter (*tahlil* of *mawad*) in joint cavity [1]; Due to upright and dependent position of the organ as it lies in relation to the other organs [1, 3, 10]; Joints are covered with ligaments, tendons and muscles, hence the accumulated morbid matter are not easily removed through skin pores [1]; Weak *quwate hazema wa dafea* (digestive and excretory powers) [1, 5].

Accumulation of *mawade fuzooni* (vitiating matter) in joints will produce pain and inflammation. Following factors are responsible for the collection of *mawade fasidah* within the joint spaces [5]; Weakness of joints increases susceptibility to accumulation of *mawad* [6]. When vigorous physical movements occur, it stimulate the *mawad* (matter) and produce heat in the joint cavity, which has the property of absorbing and attracting fluids or *mawad* (matter). During the movements, the morbid matters which are stagnated in the interstitial spaces starts migrating and gets collected in the joint cavity, since it has adequate space to receive. Besides this the temperament of the contents of joint like bone, cartilage, tendons and ligaments is *sard wa khushk* (cold and dry), due to this prime reason the joint fails to perform its digestion. Thus the morbid matter collected in the joint spaces is not eliminated properly, which gradually affects the joints [1, 8].

5. Diagnosis (*Tashkhees*)

The diagnosis of *Waja-ul-Mafasil* due to *Sue mizaj sada* or *maddi* can be made through following points [25, 26]:

- Presence or absence of swelling, inflammation, heaviness with pain in or over the joint.
- Color change over affected joint.
- Onset of pain either sudden or gradual, if onset is gradual, without heaviness, inflammation or swelling and no change in skin colour of affected joint, then it is considered to be due to *sue mizaj sada*, but *Waja-ul-Mafasil* is rarely found in *sue mizaj sada*.
- Change in tactile sensation, pulse, urine and other Unani diagnostic parameter are helpful in knowing the nature of *sue mizaj*.
- If pain is mild, absence of heaviness, shifting in nature, with severe distension, indicates due to *Riyah*
- Presence of marked swelling or inflammation, color changes, sudden onset of disease, or pain with heaviness is to be considered due to *khilti madda*.

6. General principles of Treatment

The treatment of *Waja-ul-Mafasil* in Unani system of medicine is carried out by using one of three modes or with combination *viz* [7, 32].

- *Ilaj bit Tadbeer wa Ilaj bit taghzia* (Regimenal therapy and Dietotherapy)
- *Ilaj bid Dawa* (pharmacotherapy)
- *Ilaj bil Yad* (surgical therapy)

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 in case of *Waja-ul-Mafasil Sada*, and correcting the imbalance in the *Khilt* (humour) through *Imala* (Diversion) and *Istifraagh* (evacuation) in case of *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 regime 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 massaging is also recommended [38-41, 42, 43]. *Ibne 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 [15, 44].

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

A. To relieve symptoms and signs

- Analgesia: Oral as well as local use of analgesic and sedative drugs.
- Anti-inflammatory drugs and measures.

B. Treating the root cause

- *Ta'deel-e-Mizaj* (correction of deranged temperament)
- *Tanqiya-e-Madda/ Istafraqat-e-Madda* (evacuation of morbid material) via *Fasd* (venesection), *Hijamah* (cupping), *Munziji-wa-Mus'hil* therapy (concoction and purgatives), *Mo'ariqat* (diaphoretics), *Muddirat* (diuretics) and *Muqqiyat* (emetics).

C. Strengthening of *Quwat-e-Mudabbira-e-Badan* (medatrix naturae), so that it can combat the disease).

D. *Tabreed* (cold sponging)

E. *Nutool* (pouring of decoction of drugs)

F. *Bukhoor* (Vaporization)

G. *Aabzan* (feet bath)

H. *Riyazat* (exercises)

I. The affected organ should be given support and toned up.

6.1 *Ilaj bit Tadbeer wa Ilaj bit taghzia* (Regimenal therapy and Dietotherapy)

6.1.1 *Dalk* (Massage): It is a type of *Riyazat* (Manipulation method) which resolve and liquefies vitiated matter, produces slight heat and strengthen ligaments and muscle [45]. It is also helpful in evacuation of viscous and adhered matter accumulated inside the joints, and relieves pain, produces heat which removes *barudat and rehi mawad* [46, 47], diverts morbid matter, reduces swelling, excretes *fuzlaat* specially of last grade of digestion (*hazme Akheer*) [46-48].

6.1.2 *Dalk layyin Kaseer* (Gentle and prolog massage): Specially *dalk layyin kaseer* (gentle and prolong massage) is more beneficial for such painful conditions, because *dalke layyin* make organ soft and relaxes the muscle. According to *Ibn rushd* it opens the pores which is helpful in excretion of *mawa*. While *Dalke kaseer* is helpful for *tehlil mawad* which is part and parcel in the causation of *Waja-ul-Mafasil* [47, 48].

6.1.3 *Roghaniyat* (Oils) used for *Waja-ul-Mafasil*: *Roghane Baboona, Roghane Dhatura, Roghane Surkh, Roghane Suranjan, Roghane Gule Aak, Roghane Malkangni, Roghane Hifte Barg, Roghane Kuchla1, Roghane Hina, Roghane Zanjabil, Roghane Shibit, Roghane Qust* [1, 49-51].

6.1.4 *Fasd* (Venesection/Phlebotomy)

Fasd is one of the classical methods of treatment in Unani system of medicine for cleansing, evacuation and diversion of surplus and morbid humours from the body, which helps in relieving inflammatory congestion and pain in *Waja-ul-Mafasil*, such as sciatica and lumbago. This objective will be achieved through *fasd* of specified veins of the body part [7, 15].

6.1.5 *Irsale Alaq* (Leech Therapy)

Leech or hirudotherapy is one of the most important and widely practiced methods of regimenal therapy used for local evacuation of morbid humours very effectively with use of medicinal leeches [32, 52].

6.1.6 *Hijama*: *Hijama* (Cupping) is one of the oldest and popular therapeutic regimen in Unani system of medicine indicated in different forms/types of *Waja-ul-Mafasil* such as gout, sciatica, knee pain. It is beneficial for *Waja-ul-Mafasil* because it is used for *Tanqiya and Imalae mawad* (diversion and evacuation of morbid matter) from affected part relieves pain, resolves inflammation, flatulence, produces localized heat by increasing local blood circulation, *Jalinoos* believed that *hijama* is beneficial in resolving *Ghaleez Khilt* [3, 4, 45-47].

Therapeutic role of Hijamah in the treatment of Waja-ul-Mafasil: *Archigenes* (1st-2nd century) recommends *Hijamah bish Shart* (wet cupping) with deep scarification in calf region for the treatment of *Waja-ul-Warik* (hip pain), followed by the same procedure at the affected area. *Archigenes* (1st-2nd century) recommends that that the *Hijamah-bish-Shart* should be done so profoundly that it will induce inflammation at the operating site [2]. *Feel Gharyoos* (465 AD) states that the *Hijamah* (cupping) along with the oil massage and application of *Adviya-e-Muhammirah* (rubefacient drugs) at the affected site, will cure disease completely with no relapses. He further recommends the use of *Hijamah* (cupping) along with the *Adviya-e-Muhammirah* (rubefacient drugs) for the treatment of *Waja-uz-Zahr* (lumbago) and *Waja-ul-Warik* (hip pain) particularly when pain is aggravated [2]. *Zakariya Razi*, quotes *Al Yahudi* as, "In case of sanguinous sciatica, *Qai* (emesis) is more beneficial than *Ishal* (purgation) and when the *Ishal* (purgation) is to be done, it should be preceded by *Qai* (emesis) and followed by *Huqna* (enema) with oils, *Hijamah* without scarification over both thighs and application of *Roghan-e-Hanzal* (colocynth oil) on the affected site [2]." According to *Shama'un*, "In case of *Irq-un-Nisa* (sciatica) *Hijamah* (cupping) will be done over the site of pain, in order to achieve the benefit [3]. According to *Bolas*, "In case of *Irq-un-Nisa* (sciatica), *Hijamah* (cupping) both with scarification and without scarification will be done over hip in the beginning of the disease [4]." In *Kamil-us-Sena*, regarding the treatment of *Irq-un-Nisa*, *Majusi* writes. "When the disease is prolonged and become chronic and pharmacological treatment does not prove beneficial, then the *Hijamat-e-Nariyah* (Fire cupping) is beneficial." *Ibne Sena* writes under the treatment of *Waja-ul-Mafasil Balghami* after mentioning some prescriptions, "Lastly for the treatment of *Irq-un-Nisa* (Sciatica) take out the deep seated morbid materials to the body surface whether by *Hijamah-bish-Shart* or *Bila-Shart* (Cupping with or without scarification) or by *Kayyi* (cauterization) or by the use of *Muhammar* (rubefacient drugs) or *Munfitat* (Vesicant drugs) [53-55]."

Ismail Jurjani has mentioned *Hijamah* under the treatment of *Waja-ul-Warik* and *Irq-un-Nisa*. According to him, if the treatment does not relieve disease, then *Hijamat-e-Nariyah* (Fire cupping), *Sitz bath* in sulfur containing water and

Zamad-e-Munfit (vesicant poultice) should be operated to drain morbid humours from deep inside the joints towards the surface of affected area^[56].

Repeated attempts of *Hijamah* by suck of liberal amount of blood generally relieve the condition by eliminating morbid materials from the joints.” Azam Khan has mentioned the *Hijamah* (cupping) under the management of *Waja-ul-Mafasil Damvi*. He writes, “Lastly those *Tadabeer* (regimens) should be carried out which have *Muhalil* (anti-inflammatory) and *Mulattif* effect and drain the deep seated morbid materials towards the body surface^[43]. *Hijamah* (Cupping), *Muhammir Zamad* and *Tila* (rubeficient poultice and liniment) are included in these *Tadabeer* (regimens).” Akbar Arzani in *Tibb-e-Akbar* writes under the treatment of *Waja-ul-Mafasil Damvi* that, “When *Fasd* (venesection) is contraindicated either by the weakness of patient or by any concomitant disorder, *Hijamah* (Cupping) should be performed below the site of pain, as a mode of *Istafraq* (evacuation) and *Imala* (diversion)^[57-59]. According to Samaqandi, “The treatment of *Irq-un-Nisa* (Sciatica) resembles to that of *Waja-ul-Mafasil* and is similar in few aspects to that of *Waja-ul-Warik*. So the *Hijamah* and *Ta'leeq* can also be regarded as beneficial in its treatment.”^[60] From above cited quotations it is clear that the *Hijamah* is the best method for local evacuation from the joints. *Hijamah* (cupping) not only induce *Istafraq* (evacuation) and *Imala* (diversion), but has also anti-inflammatory and demulcent effect. The above quotation reveals that *Hijamah* is useful in the treatment of *Irq-un-Nisa*, *Waja-ul-Mafasil* as well as *Waja-ul-Warik*. *Hijamah-bila-Shart* (Dry Cupping) is done for *Imala* (Diversion of morbid material) and pain relief, whereas *Hijamah-bish-Shart* (Wet cupping) can be used for both pain relief and (*Istafraq*) evacuation of morbid material. At present *Hijamah* is used widely in form or another. According to some reports it is popular in even those countries where it is not allowed. So many studies have been carried out about its utility in *Waja-ul-mafasil*. In Germany, between 1987 and 1992, many patients, 32 to 64%, with chronic polyarthritis had tried *Hijamah* as one of the unconventional procedures for treatment. Ehsan Ahmad *et al*, in a clinical study entitled “*Hijamat bish Shurut* (Wet Cupping) in combination with Unani formulation for *Waja-ul-Mafasil* (Arthritis)”, found that *Hijamat bish Shurut* is better than when compared with Unani formulation alone. Kaleem Ullah *et al*, in a study entitled “An investigation into the effect of Cupping Therapy as a treatment for Anterior Knee Pain and its potential role in Health”, observed that there was statistically significance difference between the level of pain, well-being and Range of Motion for patients with anterior knee pain pre and post Cupping ($P<0.05$)^[33]. Chirali *et al*, in a study entitled “Cupping for Patients with inflammatory complaints-Clinical and Biochemical outcomes”, concluded with, 95% patients reported an improvement in their symptoms with therapy and there was significant improvement in the main and secondary complaints. Michalsen A. *et al*, in a study entitled “Effects of Traditional Cupping Therapy in Patients with Carpal Tunnel Syndrome: A Randomized Controlled Trial”, observed that Cupping therapy was more beneficial than heat, according to the primary outcome measure, change in the total symptom score after day 7. Hong YF *et al*, in a study “The effect of moving cupping therapy on non-specific low back pain”, compared dry cupping with nonsteroidal anti-inflammatory drugs in nonspecific low back pain and suggested a significant difference in pain relief on VAS after treatment duration (MD, 22.8 of 100 mm VAS; 95% CI, 11.4-34.2,

$P<0.001$). Farhadi K *et al*, in a clinical study entitled “The effectiveness of wet-cupping for nonspecific low back pain in Iran: A randomized controlled trial”, concluded, Wet cupping plus usual care for pain reduction compared with usual care in non-specific low back pain suggested significant differences in pain relief (McGill Pain Questionnaire) at 3 months after three treatment sessions (MD, 2.2 of 6 points present pain intensity; 95% CI, 1.7-2.6, $P<0.01$). Xu L *et al*, in a clinical study, entitled “Therapeutic effect of aciclovir combination with collateral-puncturing and cupping in the treatment of 40 cases of herpes zoster”, observed that, Wet cupping plus conventional drugs on pain reduction compared with conventional drugs alone in patients with herpes zoster, failed to show favorable effects of wet cupping after interventions (RR, 100% versus 88%, $P=0.065$). Prof Raashid Ahmad Bhikha *et al*, in a study entitled “Pilot research project conducted at the University of Western Cape therapeutic cupping as adjunctive therapy in the treatment of diabetes, hypertension and osteoarthritis”, found that dry cupping can lower blood glucose in type 2 DM, marked improvement in the majority of patients in quality of life parameters, with a marked reduction in BP and body mass in several patients and a welcome fall in blood cholesterol levels and adjuvant cupping therapy provides pain relief, significantly improves ROM, and has a positive impact on the reduction of crepitus. Nighat Anjum *et al*. in a clinical trial entitled, “Clinical efficacy of Hijamat (Cupping) in *Waja-ul-Mafasil* (Arthritis) found statistically significant results in terms of pain, morning stiffness, improvement in restricted movements and swelling. Nayab *et al*. in clinical study entitled, “Clinical study on *Waja-ul-Mafasil* and evaluation of *Hijamat-Bila-Shurut* in the treatment found statistically significant results in terms of pain, morning stiffness, joint swelling, and improvement in restricted movements, tenderness and muscular weakness. Sheikh Haneef Mohammad *et al*. in clinical study entitled, “Therapeutic evaluation *Hijamat Bish Shart* (Wet Cupping) in the treatment of Knee Osteoarthritis”, using WOMAC Osteoarthritis Index, active range of motion (AROM) and visual analogue pain (VAS) concluded: The improvement in the WOMAC pain, stiffness, WOMAC total score (i.e. the pain, stiffness and physical function as a single variable) and VAS was extremely significant both at the 28th day and after the completion of protocol therapy in the test group ($p<0.001$); whereas no significant statistical difference was found when comparing with control group ($p>0.05$). The improvement in the AROM was very significant both on the 28th day and after the completion of protocol therapy in the test group. The statistical difference for AROM was extremely significant when comparing the test and control groups^[47, 57-68].

6.2 *Ilaj bid Dawa* (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:

6.2.1 Single drugs (Mufradat)

Suranjan (*Colchicum luteum* Baker), Bozidan (*Tanacetum umbelliferum*), Asgandh (*Withania somnifera*), Filfil Siyah (*Piper nigrum*), Turbud (*Operculina terpeethum*), Khardal (*Brassica nigra* Linn), Zanjabil (*Zingiber officinale*), Sana Maki (*Cassia augustifolia*), Mako (*Solanum 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 belladonna*), Marzanjosh (*Origanum majorana*), Muqil (*Commiphora muqil*), Nakhona (*Astragalus hamosus*), Qunturyoon (*Centauria centaurium*), Qust (*Saussurea lappa*), Saqmonia (*Convolvulus scammonia*), Shahatra (*Fumaria parviflora*) [10, 21, 38-44, 51-54, 69,73].

6.2.2 Compound Unani Formulations (Murakkabat)

Habb-e-Suranjan, Habb-e-Asgandh, Habb-e-Azraqi, Habb-e-Muntan, Habb-e-Najah, Habb-e-Sheetraj, Habb-e-Mafasil, Habb-e-Kuchla, Iyarij Faeqra, Jawarish Jalinoos, Jawarish Safarjali, Majoon Azraqi, Majoon Chobchini, Majoon Najah, Majoon Safarjali, Majoon Suranjan, Majoon Ushba, Qurs Mafasil, Tiryaq-e-Kabir, Tiryaq-e-Arba', Tiryaq-e-Farooque [2-4, 6-7, 70-72, 77-79].

Unani formulations used for local application

Roghan-e-Suranjan, Roghan-e-Surukh, Roghan-e-Mafasil Hakeem Ajmal Khan, Roghan-e-Qust, Roghan-e-Marzanjosh, Roghan-e-Baboona, Roghan-e-Zaitun, Roghan-e-Badam, Roghan-e-Auja, Roghan-e-Chobchini, Roghan-e-Dhatura, Roghan-e-Balsan, Roghan-e-Satawri, Roghan-e-Jundaebestar, Roghan-e-Gul-e-Aakh, Roghan-e-Kuchla, Roghan-e-Mom, Roghan-e-Hanzal, Roghan-e-Sosan [2-7, 9-10, 30, 35-40, 73-75, 80].

7. 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.

The profound literary survey pertaining to *Waja-ul-Mafasil* as to its concept, detailed classification, etiology and multidimensional approach in the management testifies to the fact that this age old disease was meticulously managed by Unani scholars successfully in spite of the limitations prevailed over at that time. This has been documented in the classical literature of Unani medicine. Of late scientific studies with different Unani formulations are being carried out by different research institutions to validate these claims. The scintillating point of this approach is through drug less regimental therapies viz; *Irsale alaq*, *Fasd*, *Hijama*, *Dalk* which seems to be a boon for intervention of disease condition in terms of easy to perform, cost effective and at the same time devoid of adverse effects. It has also been found that *Hijamah* is a good analgesic and anti-inflammatory regimen in comparison to other conventional therapies. As an adjuvant therapy *Hijamah* provides significant improvement in pain and has a marked effect in improving the quality of life. Hence the objective of this review would be fully

accomplished if it reaches a larger section of medical domain and ultimately benefit the humanity.

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