

OSTEOARTHERITIS IN LIGHT OF UNANI SYSTEM OF MEDICINE PERSPECTIVE

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ABSTRACT

Osteoarthritis is a chronic degenerative disorder of multifactorial etiology characterized by loss of articular cartilage, hypertrophy of bone at the margins, subchondral sclerosis and range of biochemical and morphological alterations of the synovial membrane and joint capsule. It is a painful or inflammatory condition affecting joints and it's muscles, and ligaments and may involve any joint that are; hips, knee, hands, wrists, back with accumulation of *mawade fuzaoni* (vitiated matter) in the joints as the causative factor liable for pain and inflammation. *Waja -ul-Mafaasil* (Osteoarthritis) the term is used frequently for joint pain. It encompasses all types of joint pain such as *Niqris* (gout), *Waja- ul-Warik* (low backache), *Iraqunnisa* (sciatica), *Waja-ur-Raqba* (Knee Osteoarthritis), *Waja-ul-Mafasil* has been classified by the eminent Unani scholars are various types on basis of etiopathology as well as site of involvement of the joint. Risk factors for this disease are advance age, obesity, repeated use of joint from a long period. Clinically presented by pain, stiffness and loss of movement. Dignosis is based on clinical feautres as well as investigation. Xray is the still mainstay instead of recent advance techniques like CT, MRI etc. *Ta'deel-e-Mizaj* (correction of deranged temperament) *Tanqiya-e-Madda/ Istafragat-e-Madda* (evacuation of morbid material) via *Fasd* (venesection), *Munzij-wa-Mus'hil* therapy (concoction and purgatives), *Muqqiyat* (emetics). *Dalak*(massage) to relieve sign and symptoms. Unani treatment modalities are still giving challenge to modern system of medicine because of safe, effective, inexpensive, easily availability and fewer side effects.

KEY WORDS: Osteoarthrititis, *Waja -ul-Mafaasil*, *Ta'deel-e-Mizaj*, *Tanqiya-e-Madda/ Istafragat-e-Madda*.

INTRODUCTION

Waja -ul-Mafaasil (Osteoarthritis) is a chronic degenerative disorder of multifactorial etiology characterized by loss of articular cartilage, hypertrophy of bone at the margins, subchondral sclerosis and range of biochemical and morphological alterations of the synovial membrane and joint capsule.^[1] It is a painful or inflammatory condition affecting joints and it's muscles, and ligaments and may involve any joint that are; hips, knee, hands, wrists, back^[2] with accumulation of *mawade fuzaoni* (vitiated matter) in the joints as the causative factor liable for pain and inflammation. *Waja -ul-Mafaasil* (Osteoarthritis) the term is used frequently for joint pain. It encompasses all types of joint pain such as *Niqris* (gout), *Waja- ul-Warik* (low backache), *Iraqunnisa* (sciatica), *Waja-ur-Raqba* (Knee Osteoarthritis), *waja ul warik*(low Backache).^[3] Joints are composed of bones which are inter-related and inter-connected with the help of cartilage, tendon; articular surfaces of some joints possess some intervening spaces which helps them to perform different kinds of movements. These spaces are filled with *rutubat* (fluid) i.e. *rutubate tajawif* (synovial fluid), which act as a lubricant and Keep the joint surface consistently moist, so as to prevent from friction.^[4]

Classification of *Waja-ul-Mafasil* ^[5, 6]

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

According to matter present

Sue Mizaj sada(due to external cause like cold, lack of exercise etc)

Sue Mizaj maddi(vitiated matter).

According to humours (*khilt*): Consideration of the types of *Khilt* (Humors) causing *Waja-ul-Mafasil* (Arthritis) leads to its division into four types

Waja-ul-Mafasil Balghami (Phlegmatic)

Waja-ul-Mafasil Damvi (sanguineous)

Waja-ul-Mafasil Safravi (bilious)

Waja-ul-Mafasil Saudavi (Melancholic).

According to number of cause

Waja-ul-Mafasil Mufrad: This type of *Waja-ul-Mafasil* is caused by the abnormal change in the one of the four humors and has been categorized into; *Waja-ul-Mafasil Balghami*, *Waja-ul-Mafasil Saudavi* *Waja-ul-Mafasil Safravi* and, *Waja-ul-Mafasil Damvi*, *Waja-ul-Mafasil Murakkab*: When the change is in more than one humour and at least two humours.

Modern Classification^[1]

Primary osteoarthritis (idiopathic)

A. Localised

- Hands – nodal osteoarthritis more than three joints Involved
- Hip – eccentric, concentric, diffuse
- Knee – medial tibiofemoral, lateral tibiofemoral, patellofemoral
- Spine – apophyseal, intervertebral, spondylosis.

B. Generalised

1. Small (peripheral) joints
2. Large (central) joints
3. Mixed and spine

C. Erosive osteoarthritis

2) Secondary

- I) Congenital and developmental disorders, bone dysplasias.
- ii) Post-surgery / injury – Meniscectomy.
- iii) Endocrine – Diabetes mellitus, Acromegaly, Hypothyroidism, Hyperthyroidism, Cushing syndrome.
- IV) Metabolic – Hemochromatosis, Ochronosis, Marfan syndrome, Ehler-Danlos syndrome, Paget disease, Gout, Pseudogout, Wilson's disease, Hurler disease, Gaucher disease.

CLINICAL FEATURES^[7]**Risk factor**

Age: is the most potent risk factor for OA. Aging increases joint weakness through several mechanisms. Cartilages become less responsive to these stimuli. Muscles and tendons that bridge the joint become weaker with age. Older women are at high risk of OA in all joints, a risk that emerges as women reaches 5-6th decades because of replacement of hormones after menopause.

Obesity: This is certain that there is three or more times burden on hip and knee joint than the actual body weight because of gravity. Any increase in weight may be multiplied by this factor to reveal the excess force across the knee in overweight persons during walking. Obesity is an potent risk factor for the development of knee OA and, for hip OA.

Repeated Use of Joint: There are two categories of recurring use of joint, occupational use and free time physical activities. Workers performing recurring tasks as part of their occupations for many years are at high risk of developing OA in the joints they use repeatedly. Certain types of exercise may paradoxically increase the risk of disease while exercise is a major element of the treatment of OA.

Clinically, the condition is characterized by joint pain, tenderness, limitation of movement, crepitus, occasional effusion, and variable degrees of local inflammation.^[8] There is type of pain which can be occurred in joints of limbs and this may restrict the daily activities.

Sometimes it is *zarbani* in nature and sometime it is dull, deep and heavy.^[2]

Pain

Pain is the first and major symptom of osteoarthritis. The pain in weight-bearing joints is usually worsened by standing and walking and is relieved by rest. Although it is characteristically irregular, pain can become regular.^[9]

Stiffness

Osteoarthritis usually occurs in the morning or after periods of inactivity. The stiffness typically resolves within minutes and is relieved by motion of the joint.^[9]

Loss of movement

As osteoarthritis progresses, joint movement becomes limited. This results in loss function, which, alongside pain, is a major reason that patients visit their family doctor. Loss of movement can lead to difficulties with certain daily activities, such as stair climbing, walking.^[9]

Other symptoms

Joint enlargement due to joint effusion, bony swelling or both. Crepitus, defined as a sensation of crackling or crunching, is also commonly felt on passive or active movement of an affected joint.^[9]

ETIOPATHOGENESIS^[4, 5, 10]

According to Unani concept the pain which occur in joint's of limbs called *waja ul mafasil* and caused by specific type of *mawad*(matter) which should be evacuated but due to *zoafe quwwate dafa* of *mafasil*(joint) it could not evacuate properly and cause friction in mechanic of that particular joint. Further gradually this matter become cold due to decrease function of joint because it is a concept where *quwwa* is weak then function is weak and when the function is not proper the *hararat*(warmth) will start to convert into *barudat*(cold) and ultimately it will affect the all *madda* of joint cavity either it would be synovial fluid or membrane or cartilage or bony prominence. Normally after the evacuation of the old abnormal matter the new one is made and lubricate the joint properly and one more place. According to Jurjani *wajaul mafasil* is type of pain which occurs in joints of limbs, *is two types one is Asli* or *Fai'la*(structural cause) and another one *Arizi*(secondary) is includes following.

Asbabe Asli or Fai'la(Primary cause)

1. Normally the *Tabiyat* of the joints suck the fluids whenever the level decreases. but when due to excessive mechanical use of the joint occur a abnormal heat produced which burn the joint fluid this process called *tahallul* and there a dryness produced. Because this time *Tabiyat* is unable to suck the fluid according to demand (*badale ma ya tahallul*) could not occur completely).
2. The joint *quwwate dafa* get weak resulting the *ghair tabai fuzlat* get not evacuated which cause an another thing that all structure in a joint either capsule or tendon or cartilage or bony prominence are cold and dry then

these cannot assimilate the abnormal fluid. So this fluid become cold and this create a type of pain.

3. The joint space are very large space so these get very easily affected by abnormal fluids (*ghair tabai mawad*) and this could not evacuated easily by *tabiat* of joints.

Asbabe Arzi (secondary)

Lack of exercise, *zoafe meda* (weakness of stomach), *ghizae be aitadali* (improper diet in respect to time, quantity, and quality), use of alcohol, excessive coitus and exercise after meal, *Ehtebeas ghair tabai* for example cessation of menstruation, hemorrhoids, sweating etc.

Osteoarthritis is considered an organ's disease that involves the whole joint structure. A gradual loss of articular cartilage in synovial joints is combined with subchondral bone sclerosis, osteophytes at the joint margins and mild, chronic nonspecific synovial inflammation.^[9]

DIAGNOSIS (TASHKHEES)^[5, 10]

The diagnosis of *Waja-ul-Mafasil* can be made through following points

1. Presence pain in or over the joint.
2. 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*.
3. If pain is mild, absence of heaviness, shifting in nature, with severe distension, indicates due to *Riyah*
4. Presence of marked swelling or inflammation, color changes, sudden onset of disease, or pain with heaviness is to be considered due to *khilti madda*.

MODERN DIAGNOSIS^[11]

It is chiefly based on history and clinical examinations. X-ray is the still mainstay instead of recent advance techniques like CT, MRI etc.

2. X-rays may be used as confirmative tool for diagnosis. Typical changes seen on x-rays include:

1. Joint space narrowing
2. Sub Chondral sclerosis (increased bone formation around the joint)
3. Subchondral cyst formation
4. Osteophytes.

MANAGEMENT

Line of Treatment^[4]

Ta'deel-e-Mizaj (correction of deranged temperament)
Tanqiya-e-Madda/ Istafragat-e-Madda (evacuation of morbid material) via *Fasd* (venesection),
Munzj-wa-Mus'hil therapy (concoction and purgatives),
Muqqiyat (emetics). *Dalak* to relieve sign and symptoms.

Treatment^[4, 5, 6, 10]

If cause is *maddae kham/balghami* then *Nuzj* is necessary and for it *ma'aul* usu'l to give for orally. Patient should be advised to do vomiting. After that *mushil* drugs should be prescribed for example *Habbe*

ayarij, Habbe muntun, Habbe sakbenuj, Tiriyaq e arba has a specific effect in this disease which occur due to *Balgham kham*. Massage of *Rogane Qust, roghane Suddab, Roghane Farfyun, Roghane Sosan* is very effective. Before application of oil the skin of back should be rub with a rough cloth and oil is heated slightly then applied. If cause is *Sue Mizaj sada* then normal *Mizaj* should be restored and orally *Mashridotos, Sanjarniya, Tiriyaq e arba* is very effective. If pain occur due to involvement of kidneys then the drugs as like *muqawwi ghurda* like *jawarish zar'ooni, Sharbate bazoori* should be used. If the cause is exercise then give advice to take rest and easy digestible diet and patient to send for *Hammam* and give massage with *Roghane shibbat and Roghane Babbona*. If cause is Hyperemia then give *fas'd* of basleeq and *safin* (phlebotomy of Basilliq and long saphanous) and for massage *Roghane Ghul* and diet easily detestable.

Nuskha Munjiz wa mushil^[13]

Maviz munaqqa (Vitis Vinefera) 9 number, Badiyan (Foeniculum vulgure) 5gm, Aslussus (glycyrrhiza glabera) 7gm, Injeer zarda (Ficus carica) 2 number or; Bekhe Badiyan (Foeniculum vulgare) 7gm, Bekhe kibr (Capparis Spinosa) 7gm, Bekhe kirafs (Apium Graviolanse) 7gm, Badranjboya (Mellisa officinalis) 7gm, Sana Makki (Cassia Aungustifolia) Aftimoon (Cuscuta reflexa) 7gm, Turbud (Ipomea turpthum), Suranjan (Cholchicum luteum)

Ilaj bit tadbeer (Regimenal Therapy)

Dalk (Massage)^[13]

It is a type of *Riyazat* (Manipulation method) resolve and liquefies vitiated matter, produces slight heat and Strengthen ligaments and muscles.

Hijama^[13]

Hijama (Cupping) is one of the oldest and popular therapeutic regimens in Unani system of medicine indicated in different forms/ types of *Waja ul Mafasil* such as gout, sciatica, knee OA.

Fasd (Venesection/ Phlebotomy)^[13]

Fasd is one of the classical methods of treatment of *Waja-ul-Mafasil* in Unani system of medicine for cleansing, evacuation and diversion of surplus and morbid humours from the body.

CONCLUSION

Waja-ul-Mafasil is broad term in Unani system of medicine which encompasses entire joint disorders like inflammatory, non-inflammatory, musculoskeletal, infectious, metabolic disorders. On deep approaching, arthritis can be correlated with various types of *Waja-ul-Mafasil* on basis of predisposing factors, aggravating factors, clinical features described in classical Unani texts. The aim of the this paper is to put the old theory of Unani medicine associated with osteoarthritis which had been described a long time ago and the Unani treatment modalities are still giving challenge to modern system of

medicine because of safe, effective, inexpensive, easily available and less side effects. Keeping in analysis side effects of current treatment modalities of Osteoarthritis, it can be concluded that Unani approach of treatment provides an alternative method of treatment, being both economical and free of side effects to a greatest level.

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