APPLIED ASPECT OF KULLIYAT IN THE MANAGEMENT OF ARTHRITIS- A REVIEW

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ABSTRACT: ***The profound literary study pertaining to arthritis as to its concept, classification, etiology, and multidimensional approach in the management. The scintillating point of this approach is through less regimental therapies viz; Irsale alaq ,Fasd , Hijama, Dalak, takmeed, 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. Hence the objective of this review would be fully accomplished if it reaches a larger section of medical domain and ultimately benefit the humanity.***

Unani

Keywords: ***Unani, Arthritis, Ilaj-bit-tadbeer, waja-ul-mafasil, Dalak, Hijamah, Takmeed***

INTRODUCTION: Wajaul Mufasil is the term used in Unani literature for Arthritis, which encompasses all types of joint pain such as Niqras (Gout), Wajaul Warik (Ischial Pain), Irqun Nisa (Sciatica), Wajaur Rukbah (Knee Pain) etc. On the basis of quantitative and qualitative derangement of humours eminent Unani scholars classify Wajaul Mufasil into sada or maddi. Among Maddi ,Wajaul Mufasil Balghami is one,which occurs due to accumulation of abnormal Balgham in the joint cavity, clinically it resembles with chronic knee osteoarthritis. Arthritis has been one of the major concerns of the health since time immemorial.[1][2] The Unani system of medicine has been able to differentiate different types of arthritis. Arthritis is a term often used to mean any disorder that affects joints. The term is used to describe around 200 rheumatic diseases and conditions that affect joints, the tissues that surround the joint and other connective tissue. There are over 100 types of arthritis. The most common forms of arthritis are osteoarthritis (degenerative joint disease) and rheumatoid arthritis. Osteoarthritis affects more than 3.8% of people while rheumatoid arthritis affects about 1 to 2 % of the western population at some point in their lives. Overall the disease becomes more common with age. Arthritis is a common reason that most people miss work and can result in a decreased quality of life. [4]

CLASSIFICATION:

A) According to unani concept [1], [2], [4]

i. Based on type of maddah involved.
ii. Based on presence or absence of akhlate- faasidah.
iii. Based on Mizaj (sue mizaj sada or maddi)
iv. Based on number of khilt involved.
v. Based on severity and duration of the disease (acute or chronic)
vi. Based on the joint involvement.

B) According to modern concept [3], [4]

i. Inflammatory arthritis
ii. Primary and secondary arthritis
iii. Degenerative or mechanical arthritis
iv. Soft tissue musculoskeletal pain
v. Back pain
vi. Connective tissue disease
vii. Infectious arthritis
viii. Metabolic arthritis

CAUSES: There is no single cause of all types of arthritis; the cause or causes in any given case vary according to the type or form of arthritis. Potential causes may include: Sue mizaj (inequable temperament), Mawad-e-fasidah (vitiated matter), Weakness of joint, Overweight or obese, Hypertension, Poor kidney function , Improper digestion, Sedentary lifestyle, Lack of exercise, Use of alcohol, Intoxicating agents, Sudden withdrawal or discontinuing the habit of istifragh, Hereditary factor, A diet rich in meat and seafood, Horse riding.[2],[3],[4]

RISK FACTORS: Certain factors have been shown to be associated with a greater risk of arthritis. Some of these risk factors are modifiable while others are not.

Non -modifiable risk factors:

i. Age :Risk of developing arthritis increases with age.
ii. Sex: Most of the types of arthritis are more common in females. Gout is more common in males than females.
iii. Genetic: Specific genes are associated with a higher risk of certain types of arthritis.

Modifiable risk factors:

i. Overweight or obesity: excess weight can contribute to both the onset and progression of knee osteoarthritis.
ii. Joint injuries: damage to a joint can contribute to the development of osteoarthritis in that joint.
iii. Infection: many microbial agents can infect joints and trigger the development of various forms of arthritis.
iv. Occupation: certain occupations that involve repetitive knee bending and squatting are associated with osteoarthritis of the knee.
v. Changes in sex hormone levels may play a role in the development of osteoarthritis as it is more prevalent among post-menopausal women than among men of the same age.

PATHOPHYSIOLOGY: Although the primary manifestations of OA and RA involve the joints, the underlying pathophysiology of each condition is distinct.

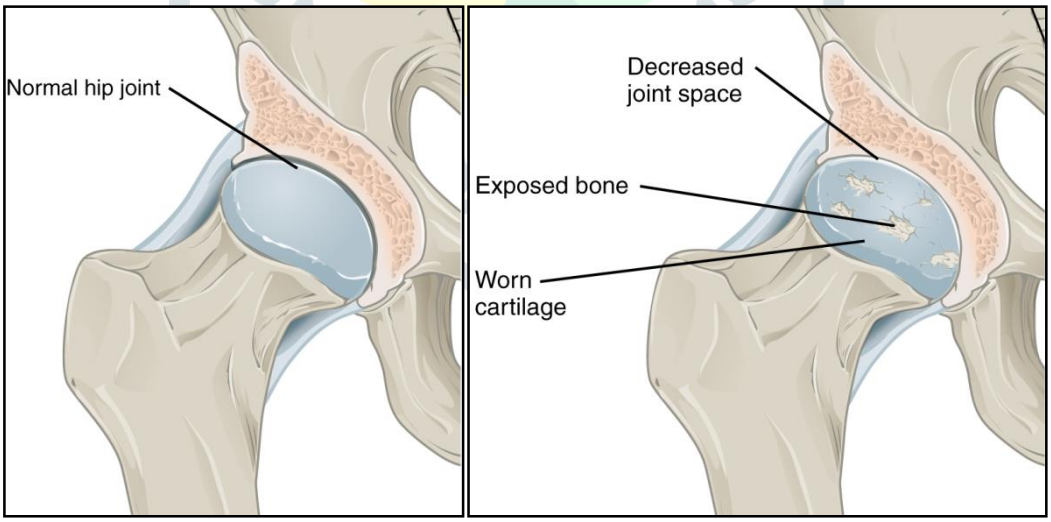
1. **Osteoarthritis and cartilage degeneration:** Normally, cartilage undergoes a remodelling process, stimulated by joint movement or use. In OA, this process is altered by a combination of mechanical, cellular, and biochemical processes, resulting in abnormal reparation of cartilage and an increase in cartilage degradation. OA is primarily characterised by progressive cartilage loss, accompanied by an increased thickness of the subchondral plate, osteophytes and subchondral bone cysts.
2. **Joint damage in rheumatoid arthritis:** Unlike the pathophysiology of OA , which is largely mechanical , RA is an autoimmune disease. The initial triggers of RA are unclear but hormones, genetics and environmental factors may all play a role. Once the initial immune response is triggered, cells of the immune system produce autoantibodies and inflammatory cytokines, creating a cascade of inflammation resulting in the formation of pannus; the pannus invades and destroys cartilage and bone. Additional joint damage and systemic complications ensue, resulting from a complex process of inflammatory mediators being released in the affected joint.[3],[4]

MORPHOLOGIC FEATURES: The weight-bearing joints such as hips, knee and vertebrae are most commonly involved but interphalangeal joints of fingers may also be affected. The pathologic changes occur in the articular cartilages, adjacent bones and synovium:

1. Articular cartilages: The regressive changes are most marked in the weight-bearing regions of articular cartilages. Initially, there is loss of cartilaginous matrix (proteoglycans) resulting in progressive loss of normal metachromasia. This is followed by focal loss of chondrocytes, and at other places, proliferation of chondrocytes forming clusters. Further progression of the process causes loosening, flaking and fissuring of the articular cartilage resulting in breaking off of pieces of cartilage exposing subchondral bone. Radiologically, this progressive loss of cartilage is apparent as narrowed joint space.

2. Bone: The denuded subchondral bone appears like polished ivory. There is death of superficial osteocytes and increased osteoclastic activity causing rarefaction, microcyst formation and occasionally microfractures of the subjacent bone. These changes result in remodelling of bone and changes in the shape of joint surface leading to flattening and mushroom-like appearance of the articular end of the bone. The margins of the joints respond to cartilage damage by osteophyte or spur formation. These are cartilaginous outgrowths at the joint margins which later get ossified. Osteophytes give the appearance of lipping of the affected joint. Loosened and fragmented osteophytes may form free 'joint mice' or loose bodies.

3. Synovium: Initially, there are no pathologic changes in the synovium but in advanced cases there is low-grade chronic synovitis and villous hypertrophy. There may be some amount of synovial effusion associated with chronic synovitis.[4]



SIGN AND SYMPTOMS: Just as the causes of different types of arthritis can vary widely, the pattern and location of symptoms of arthritis can also vary depending on the type. Arthritis symptoms can develop gradually or suddenly, and as arthritis is most often a chronic disease, symptoms may come and go, or persist over time. There are four key warning signs of arthritis. Pain, Aching, Stiffness, and Swelling. The symptoms can develop gradually or suddenly. Certain rheumatic conditions can also involve the immune system and various internal organs of the body such as rheumatoid arthritis and Systemic lupus erythematosus (SLE).

AGE GROUP: Arthritis is strongly associated with ageing and is a major cause of pain in older people. It is more common among persons of fourth decade (40-45 years) but people of all age (including children) can be affected. The prevalence of OA rises progressively with age, such that by 65 years 80% of people have radiographic evidence of OA. [3]

DIAGNOSIS: Most of the cases of arthritis are diagnosed with a detailed medical history of current and past symptoms, physical examination and particular radiographic and laboratory studies. It is possible to have more than one form of arthritis at the same time, and

only a few rheumatic diseases have a definitive diagnosis, such as gout. Some tests that may be completed to make a diagnosis are: Rheumatoid factor, Anti- CCP antibody, Complete blood count, C- reactive protein, Erythrocyte sedimentation rate (ESR), Joint ultrasound or MRI, Joint x- ray, Bone scan, Synovial fluid analysis, Antinuclear antibody (ANA), HLA antigens for HLA B27, Electrocardiogram (ECG), Synovial biopsy, Uric acid- urine, Uric acid- blood.[3,[4]

MANAGEMENT: whether you have a non- inflammatory or inflammatory type of arthritis or even a painful case of gout, there are numerous medications and recommendations to relieve pain and ensure that your joints do not become damaged further. The focus of treatment for arthritis is to control pain, minimize joint damage and improve or maintain function and quality of life. The treatment of arthritis might involve the following: Resting, applying ice or heat, weight loss, exercise, shock absorbing footwears, Medications, Non-pharmacologic therapies, Physical or occupational therapy, Splints or joint assistive aids, Patient education and support, Weight loss, Surgery-joint replacement and joint surgery.[3]
Ancient Unani scholars have elaborately described inflammation and pain of joints under the caption of Waja-ul-Mafasil and managed with multidimensional approach, in contrast with the present day management of disease mainly with non-steroidal anti-inflammatory drugs (NSAIDs) which will be having large number of adverse effects. The aim of treatment for patients of 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). Hijamah (Cupping therapy) is a regimenal mode of treatment recommended by eminent Unani physicians for the management of Waja-ul-Mafasil, serve the both purposes.[12],[13]

Line of Treatment: Principle line of treatment in Waja-ul-Mafasil can be set forth in following manner: **1.** To relieve symptoms and signs - Analgesia: Oral as well as local use of analgesic and sedative drugs, Anti-inflammatory drugs and measures. **2.** Treating the root cause: Ta'deel-e-Mizaj (correction of deranged temperament), Tanqiya-e-Madda/ Istafragat-e-Madda (evacuation of morbid material) via Fasd (venesection), Hijamah (cupping), Munzijwa-Mus'hil therapy (concoction and purgatives), Mo'ariqat (diaphoretics), Muddirat (diuretics) and Muqqiyat (emetics). **3.** Strengthening of Quwat-e-Mudabbira-e-Badan (medeatrix naturae), so that it can combat the disease) **4.** Tabreed (cold sponging) **5.** Nutool (pouring of decoction of drugs) **6.** Bukhoor (Vaporization) **7.** Aabzan (feet bath) **8.** Riyazat (exercises) **9.** The affected organ should be given support and toned up. [2],[5],[10]

CUPPING / *HIJAMAH*: Cupping is the method used for local evacuation or diversion of morbid humours in which a horn (singhi) is attached to the surface of the skin of the diseased part through negative pressure created by the introduction of heat or suction. How hijamah works? Various theories are given about the benefits of the cupping therapy. One theory suggests that it is by increasing circulation around the area of cupping and allowing for the elimination of toxins tapped in the tissues. Another theory suggests that it is the process of transferring discomfort and even pathology from one site to another that may cure the original site of any disease process. 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, it relives pain, resolves inflammation, flatulence, produces localized heat by increasing local blood circulation, Jalinoos believed that hijama is beneficial in resolving Ghaleez Khilt.

PREVENTION: Some risk factors are considered to be modifiable. They are the behaviours and circumstances that can be changed in order to reduce risk, delay onset or altogether prevent arthritis. Lose weight, or at least avoid gaining, do not smoke, eat diet low in sugar, alcohol and purines. Increasing the intake of calcium and absorption of vitamin D will also assist in reducing the risk of developing arthritis and osteoporosis. Tobacco smoking increases the risk of developing rheumatoid arthritis so it should be avoided. One should have Fish in their diet because certain types of fish are packed with inflammation-fighting omega-3 fatty acids. Those who are vegetarians can have soy instead of fish. Do exercise that doesn't damage joints. If you walk, make sure you have comfortable shoes, and try to walk on surfaces that are relatively flat. Watch your biomechanics. How you lift and carry various objects, or perform physical tasks, including playing sports, can make a big difference to the health of your joints. Purines are a type of chemical compound found in foods and drinks that are part of a normal diet. A small number of foods contain concentrated levels of purines, such as seafood, organ meats and alcoholic beverages, especially beer. People who have trouble metabolizing purines, such as people with hyperuricemia or gout, are advised to limit consumption of these foods..

CONCLUSION: Present study indicates that application of cupping showed good results in the management of Wajaul Mafasil. Hence, it is recommended that further studies should be carried out with randomized clinical trials to evaluate the long term effectiveness of cupping in the management of Wajaul Mafasil. The use of *Hijamah* is relatively safe and effective, as constituents of it are free from side effects, in contrast with the present day management of disease mainly with non-steroidal anti-inflammatory drugs (NSAIDs) which will be having large number of adverse effects. In most cases of wajaul mufasil unani system can help to treat it without any induced medication, with the help of modification in asbabe failiya e.g. asbabe zarooriya and ghair zarooriya, with the help of cupping therapy or riyazat.

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