

INTERNATIONAL JOURNAL OF INSTITUTIONAL PHARMACY AND LIFE SCIENCES

Life Sciences

Research Article.....!!!

Received: 17-08-2015; Revised: 29-08-2015; Accepted: 30-08-2015

MANAGEMENT OF WAJA-UL-MAFASIL BY TOPICAL UNANI MEDICINE: A CASE STUDY

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Keywords:

*Waja-ul-Mafasil, Unani,
Roghan Haft Barg,
Marham Dakhliyun*

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ABSTRACT

Waja-ul-Mafasil is a generalized term which includes all the painful conditions of the joints, and clinically simulates with osteoarthritis in modern medicine. As per humoral concept of Unani medicine, it may be caused by *Su-e-Mizaj Sada* and *Su-e-Mizaj Maddi* (improper temperament) due to involvement of abnormal *Akhlat* (morbidic humours). In Unani system of medicine, *Waja-ul-Mafasil* has been managed through a number of single and compound drugs both for oral and local use, and through special regimes of *Ilaj bit Tadbeer* (regimenal therapy). In this context, local application of *Marham Dakhliyun* along *Roghan Haft Barg* painted on castor leaves was evaluated to reduce the inflammatory manifestations of the left knee. During the whole course of four weeks treatment, considerable improvement both in disease process and quality of life was achieved. The efficacy was scientifically evaluated using Knee Injury and Osteoarthritis Outcome Score.

INTRODUCTION

Waja-ul-Mafasil (arthritis) is a generalized term which includes almost all the painful conditions of joints. Clinically, its subtype *Waja-ul-Mafasil Baarid* (OA having cold temperament) closely resembles to the primary generalized Osteoarthritis. According to WHO, osteoarthritis is the second commonest musculoskeletal problem in the world population (30%) after back pain (50%).¹ In India, the prevalence of osteoarthritis is about 5.78 %.¹ Because of morbidity and disability related to osteoarthritis, it has become one of the most searched disease to modulate the disease pathogenesis as well as make patients able to carry out their daily chorus.

The clinical picture of osteoarthritis strongly simulate with *Waja-ul-Mafasil Baarid*, which has been extensively elaborated by Unani physicians in greater details. *Raban Tabri* has defined it as the pain occurring in legs due to *Buroodat* (coldness) and insensitivity, and is *Balghami* (phlegmatic) in temperament, which may become chronic later on.² According to *Samarqandi*, *Waja-ul-Mafasil* is a *waram* (inflammatory process) or pain which arises in *Mafasil* (joints), *Azlaat* (muscles) surrounding the joints, and *Ribatat* (ligaments).³ Thus, *Waja-ul-Mafasil* is the pain and *waram* which arises in the *Mafasil*, *Azlaat*, and *Ribatat* of hands and legs. Based on the above mentioned clinical features of OA, it substantially simulates with those of *Waja-ul-Mafasil Baarid* either *Balghami* or *Saudavi*. *Waja-ul-Mafasil Balghami* is manifested by increased heaviness with least swelling, deep mild to moderate pain, but without warmth and burning. *Waram* is soft, small but equally expanded, and similar to colour of skin.^{3, 4, 5} *Razi* has described that “*Tafarqo*”; a sound from the knee joint – clear description of crepitation– denotes the presence of *Rutubaat* (fluid).⁶ So far the “Varus” is concerned; *Samarqandi* says that in case of *Waja-ul-Mafasil*, legs get bowed like those of goat due to deposition and solidification of morbid matter in the joints. By this, it can be easily inferred that the gait is also affected.³ *Jurjani* writes in his voluminous book “*Zakhira Khawarzm Shahi*” that there is production of foreign bodies like callus and stone in the joints, which may be now better correlated with the presence of loose bodies in the joints, or with outgrowths of osteophytes.⁴ From the above detailed descriptions, we come to this conclusion that chronic primary OA is similar to that of *Waja-ul-Mafasil Baarid*, especially *Balghami*.

As per Unani texts, this disease generally occurs due to weakness of the joint involved, followed by penetration of any morbid material into the same. The material gets accumulated in the affected joint, tendons become tense, and ligaments attached to the bones, also turn tight, and the pain ensues.⁷ The pathogenic humours are produced from the waste of second and third digestion.⁴ Occasionally, the morbid humour turns stony and solidified like lime, especially *Balgham-e-Khaam* (raw phlegm), and gets deeply penetrated into the joint, and become hard.⁴

Waja-ul-Mafasil can be treated with drugs and regimenal procedures like Cupping, Venesection, and Leeching etc. For local application various regimes are mentioned in Unani system of Medicine, which serve the purpose very efficiently. Hence, a combined use of *Marham Dakhliyun* superadded with *Roghan Haft Barg* painted on *castor leaves* was locally used on the affected knee joint to evaluate their efficacy in reduction of disease process inflicting the knee.

CASE REPORT

A 53 year old male patient was admitted in the male ward of National Institute of Unani Medicine Hospital, Bengaluru with the complaints of pain, deviation of knee, swelling and difficulty in walking with painful gait for last three years. His daily routine was severely restricted and was unable to walk, climb, and rise from bed due to pain and reduced bending of the left knee. He had no history of metabolic disease, diabetes mellitus, fever, and weight loss. He suffered from trauma three years back in an accident since the time he was having these problems. During this period, he did not take proper consultation and thus the disease got established. Build was average, lying decubitus with fair complexion. Symptoms aggravated on walking and relived on rest. On physical examination, his vitals were within the normal limit and no abnormality was detected on through systemic examination. His gait was severely antalgic. Examination of left knee revealed that there was severe pain intermittent in nature, and aggravated by movement, and relived by rest or analgesics. Moderate swelling was present in supra-patellar, and medial and lateral peri-patellar pouches. Varus deformity was also present and patient could not flex his knee completely. On palpation, sensation of loose bodies was appreciated with moderate tenderness. To rule out other co-morbids of knee, special tests related to menisci and

ligaments were done and found to be negative. Patient went through X-ray of his left knee AP & Lateral views with the clinical impression of tibial spikes, osteophytes, reduced joint space without any evidence of fracture inferring the diagnosis of gross osteoarthritis of left knee. Patient was also subjected to haematological tests such as Hb%, ESR, RBS, Serum Uric Acid before treatment which were within their normal range.

Based on the above findings and radiological inference, it was diagnosed as *Waja-ul-Mafasil* simulating chronic osteoarthritis of left knee. Although, patient gave history of trauma but no evidence of fracture was noticed. Hence, it could be regarded as a case of primary knee osteoarthritis. The patient was assessed at baseline and at the end of treatment using KOOS Questionnaire consisting of symptoms, pain, daily activities, sports/recreation, and quality of life.

MANAGEMENT AND OUTCOME

Initially patient was advised to limit his activities followed by local application of *Marham Dakhliyun* pasted on left knee, put over with hot castor leaves painted with *Roghan Haft Barg* daily for two hours in morning and evening and the process was continued for 28 days. As the symptoms subsided insidiously, patient was encouraged to use his left knee not putting all his weight of body on the left side of the body. Patient responded well the regime and his quality of life were improved.

KOOS⁸ result

On symptoms

The symptom score was 29 before the treatment which improved to 82 in terms of KOOS. Patient had reduced swelling, pain, and fixed flexion deformity was corrected to 20 from 125 flexion positions.

On pain

Pain score was 50 before treatment which improved to 83 after treatment.

On ADL

ADL score was 49 at baseline which corrected to 81 after intervention.

On Sports/Recreation

The score was 10 before intervention which improved to 45 after treatment.

On Quality of Life

The quality of life was improved as the patient was having KOOS score¹³ at base line which positively progressed to 56 at the end of treatment.

The average score at baseline was 30 that improved to 70 at the end of treatment, which statistically proves the efficacy of intervention.

DISCUSSION

As the case was considerably improved with the topical application of *Marham Dakhliyun* and *Roghan Haft Barg* along Castor leaves, it infers that these drugs possess resolvent and analgesic actions, by which the result was achieved.

*Marham Dakhliyun*⁹ is composed of *Murdar Sang* (Monoxide of Lead) 60 gram, *Tukhm-e-Khatmi* (*Althaea officinalis*), *Isabgol* (*Plantago major*), *Tukhm-e-Kanocha* (*Phyllanthus maderaspatensis*), *Tukhm-e-Hulba* (*Trigonella foenum-graecum*), and *Tukhm-e-Katan* (*Linum usitatissimum*) 20 gram each. *Roghan Haft Barg*¹⁰ is compounded of *Barg-e-Aakh* (*Calotropis gigantea*), *Barg-e-Bakayan* (*Melia azedarach*), *Barg-e-Arand* (*Ricinus communis*), *Barg-e-Sambhaalu* (*Vitex negundo*), *Barge-Sahajan* (*Moringa pterygosperma*), *Barg-e-Dhatura* (*Datura alba*), and *Barge-e-Zaqqum* (*Euphorbia dracunculoides*). These formulations were manufactured by pharmacy of National Institute of Unani Medicine, Bengaluru. Various studies have conducted on the ingredients of these Unani compound drugs which further strengthen the approach. The observed effects in terms of reduction in pain, swelling, and free movement has been potentiated by virtues of anti-inflammatory, analgesic and anti-nociceptive properties.

Pharmacology, *Khatmi* is reported to have effects in relieving pain and treatment of renal dysfunction, inflammation, and irritation syndrome.¹¹ *Isabgol* has also been shown for its efficacy in alleviation of joint pain by *Mall* and *Sahani*.¹² *Kanocha* possesses antinociceptive property against neurogenic pain, may be due to inhibition of prostaglandins synthesis, and release of endogenous opioids.¹³ In one study, the hydro-alcoholic extract of *Hulba* suggested that it exhibits significant anti-inflammatory and analgesic effect.¹⁴ In an experimental study, it was found that *Katan* has analgesic and anti-inflammatory activities due to dual inhibition of arachidonic metabolism, anti-histaminic, and anti-bradykinin activities,¹⁵ *Calotropis gigantea* extract was reported to have analgesic

effect.¹⁶ The hydro-alcoholic extract of *Melia Azedarach* roots was found to be analgesic and anti-inflammatory activity,¹⁷ and *Arand* exerted antinociceptive property that may be attributed to saponin, steroids and alkaloids present in it.¹⁸

Beside these, studies conducted on *Vitex negundo*, *Moringa pterygosperma*, and *Euphorbia dracunculoides* have shown the anti-inflammatory, analgesic, and local anaesthetic activity.¹⁹⁻²¹ Thus, the actions of various ingredients reported by various clinical and experimental studies is consistent with those of Unani literature, and that's why the reduction in symptoms was noticed.

CONCLUSION

Present case report reveals that application of *Marham Dakhliyun along Roghan Haft Barg* is quite effective resolving the symptoms of *Waja-ul-Mafasil*. Hence, it is recommended that further randomized clinical trials should be executed to evaluate their efficacy in the management of *Waja-ul-Mafasil*. The test drugs were found effective and no side effect was noticed during the trial.

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