DALK (MASSAGE): A QUINTESSENTIAL COMPONENT FOR MUSCULOSKELETAL DISORDERS IN UNANI SYSTEM OF MEDICINE

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ABSTRACT

The Unani system of medicine is one of the ancient systems of medicine. Hippocrates (460-377 BC) was the first person who had freed medicine from superstitious believes and provided the base for the foundation of medicine and given the theory of Akhlat (Humours). In Unani system of medicine human body contains four humours that is Dam (sanguine), Balgham (phlegm), Safra (yellow bile) and Sauda (black bile). For the maintenance of health it is important that overall effect or combined effects of the humours are in accordance with the Mizaj (temperament) of the individual. In Unani medicine massage is known as Dalk. It has been extensively used for its preventive, therapeutic and rehabilitative purposes since ancient times. It causes elimination of morbific matter out of the body, thus helps in maintaining the equilibrium of humors. It has been advised in management of myriad neurological, psychosomatic and musculoskeletal disorders. Various clinical trials have established its efficacy in these diseases on scientific parameters. This review article aims to explore the basic concept, classification and its therapeutic importance in musculoskeletal diseases.

Keywords: Dalk, Massage, Unani, Ilaj bit Tadbeer, Musculoskeletal diseases

INTRODUCTION

Massage is one of the oldest forms of remedial therapy and first practiced in a structured manner perhaps in Chinese and Mesopotamian civilizations more than 5000 years ago. The art of massage was well known to ancient Greece physicians. In 5th century BC Buqrat (Hippocrates) wrote that the way of health is aromatic bath and an oiled massage every day. The word “massage” is came from Arabic word “mass” means to touch, feel, and pressure; or from Greek word “massein" means to knead. Hippocrates (460-375 BC) was the first person who describes the uses and contraindications of massage. He realized massage as an organized therapy. Another Unani physician Asclepedius recommended massage and physical therapy as the third most important mode of treatment. Jalinoos (Galen) (125-195 AD) wrote about 16 books related to massage and exercise and discussed these regimens in detail. Almost all Unani eminent physicians have delineated the preventive and therapeutic aspects of Dalk in their treatise.

DALK (MASSAGE)

Massage is a scientific way of treating some forms of disease by external manipulations, employed in a variety of ways to the soft tissues of the body. It is also a type of manual kneading or manipulating the soft tissues to relieve pain, discomfort, stress to preserve or promote health and wellness. In Unani medicine Dalk known as massage, is a form of Riyazat (exercise) as a manipulative technique by means of hands on muscles. It produces Hararat (heat), causes Tahallul (dissolution) and Riqqat (liquidity) in accumulated Fuzlat (morbific matter) of the body. It strengthened the Autar (ligaments) and Azlat (muscles) and evacuates the Fuzlah of Hazm Akheer (waste metabolites) accumulated in the body.

CLASSIFICATION OF DALK

There are four major types of Dalk i.e. Dalk Sulb, Dalk Layyin, Dalk Kaseer and Dalk Mu’tadil.

a) Dalk Sulb (Firm Massage): This is a type of massage in which firm pressure is applied while stroking with hands. This renders the body firm and strong by the virtue of eliminating those Rutubat (moistness), which are responsible for the flaccidity of the muscles.

b) Dalk Layyin (Gentle Massage): This type of massage is performed with soft and slow strokes of the hand without exerting much pressure. It mainly produces muscle relaxation.

c) Dalk Kaseer (Prolonged Massage): This type of massage is done for longer duration to reduce body fat mass and renders the body lean and thin, helps in elimination of Rutubat (moistness) from the body leading to weight loss.

d) Dalk Mu’tadil (Moderate Massage): This type of massage is moderate in every aspect, such as stroke and duration. Thus induces better perfusion in muscles, helps in the growth and development of the body and causes moderate rise in muscle mass. Dalk Mu’tdil is Mun’ish-e- Hararat-e-Ghareez (innate heat enhancer), causes Talteef (refining) in Akhlat (humors) and enhances freshness of the body.
Other Classification of Dalk (Massage)
Some physicians have categorized Dalk in accordance to Kaifiyat (quality of pressure) and Kammiyat (quantity of pressure), and their Murakkab (combined) nature; some special types have also been described.

<table>
<thead>
<tr>
<th>S.N</th>
<th>Types</th>
<th>Subtypes</th>
</tr>
</thead>
</table>
| 1   | According to Kaifiyat (Quality of pressure applied)| 1. Dalke-Sulb (Firm Massage)  
2. Dalke-Layyin (Gentle Massage)  
3. Dalke-Mu'tadil (Moderate Massage) |
| 2   | According to Kammiyat (Quantity of pressure applied)| 1. Dalke-Kaseer (Heavy Massage)  
2. Dalke-Qaleel (Short Massage)  
3. Dalke-Mu'tadil (Moderate Massage) |
| 3   | Dalk Murakkab (Compound types of massage)         | 1. Dalke-Sulb Kaseer (Firm Massage with prolong duration)  
2. Dalke-Sulb Qaleel (Firm Massage with short duration)  
3. Dalke-Sulb Mu'tadil (Firm Massage with moderate duration)  
4. Dalke-Layyin Kaseer (Gentle Massage with prolong duration)  
5. Dalke-Layyin Qaleel (Gentle Massage with short duration)  
6. Dalke-Layyin Mu'tadil (Gentle Massage with moderate duration)  
7. Dalke-Mu'tadil Kaseer (Moderate Massage with prolong duration)  
8. Dalke-Mu'tadil Qaleel (Moderate Massage with short duration)  
9. Dalke-Mu'tadil Mu'tadil (Moderate Massage with moderate duration) |
| 4   | Special Types of Dalk (Massage)                   | 1. Dalke-Khashin (Rough Massage)  
2. Dalke-Amlas (Gentle Massage)  
3. Dalke-Istirdad (Preparatory Massage)  
4. Dalke-Istirdad (Restorative Massage) |

SPECIAL TYPES OF DALK (MASSEAGE)

a) Dalk-e-Khashin (Rough Massage): massage is done with a rough piece of cloth. It draws the blood speedily to the surface. This type of massage should not be done for longer duration as this may lead to excessive elimination of Rutubat (moistness) from the body. 5,7,9

b) Dalk Amlas (Gentle Massage): It carried out with a soft piece of cloth and increases blood flow in the treated area that makes the body firm. 7,9

c) Dalk Istiddad (Preparatory Massage): This special type of massage is done before exercise in order to prepare the body for exercise. It starts slowly and then intensified towards the end of the massage. 7,9

d) Dalk Istirdad/ Dalk-e-Musakkin (Restorative Massage): This type of massage is done at the end of exercise to liquefy and eliminate the metabolic waste products left from exercise; if retained in the tissues, these may cause fatigue. This type of massage should be carried out gently and in moderation, preferably with oil. Massage should be soft in nature; vigorous, rough or hard manipulation should not be adopted specially at the end. When massage is over, treated part should be kept in a tense and taut position so as to help in elimination of the waste products. 5,7,9-10

TIMING OF DALK (MASSEAGE)

Unani physicians emphasized more on the timings of massage. It is very important to know when massage has to be done for the more benefits and good results and to avoid adverse events. Timing of massage exclusively depends on the type and nature of massage. Timing of massage differs according to changes in weather; in Mausam-e-Rabi (spring season) and Mausam-e-Kharif (autumn) massage should be done at Noon; in Mausam-e-Saif (summer season) massage should be done in the morning; in Mausam-e-Shita (winter season), it should be done in afternoon. 11 In Unani literature, duration of massage is not exactly mentioned in terms of minutes or hours, but it has been extensively discussed depending upon the various conditions as follows:

a) Strength of organ  
b) Mizaj of body part to be massaged  
c) Type of oil used  
d) Mizaj of disease and person  
e) Condition of disease (acute, sub-acute, chronic)  
f) Condition of patients (obese, lean and thin, healthy)  
g) Seasons  
h) Desired outcome 11-12

MECHANISM OF ACTION

The mechanism of action is based on two fundamental concepts i.e. Tanqiya-e-Mawad (elimination of morbific matter) and Imala-e-Mawad (diversion of morbific matter). Tanqiya-e-Mawad implies excretion of pathogenic Akhlat and excessive fluids out of the body, thereby maintaining the normal quality and quantity of four bodily humors. Imala-e-Mawad (diversion of morbific matter) acts through diversion of the morbific fluids from affected organ towards the normal sites, from where these matters can be easily expelled out of the body. 6,7,13

BENEFITS OF DALK (MASSEAGE)

a) Tahleel-e- Mawad: Massage easily excretes stagnant, thick and sticky Madda which is difficult to be excreted by Mus’hil (purgative).  
b) Only massage can detach a viscous, tenacious morbific matter which is firmly attached within the organ.  
c) Massage produces Riqqat (liquefaction) in Rutubat-e-Badani (body humour).  
d) Massage produces mild to moderate Hararat (Heat) in body.  
e) Massage alleviates Riyah (air) trapped in organs.  
f) Imalae Mawad: Massage is applied to divert Madda (morbific matter) from one point of the body to the other.  
g) Massage with Roghan produces Rutoobat (moistness) in the body/massaged part and thus helps in treatment of diseases induced by Yubusat (dryness).  
h) Taskeen Alam: Massage alleviates the pain.  
i) It strengthens the muscle & ligaments.  
j) Massage restores the atrophied organs to their normal size. 5,7,9,14

INDICATIONS OF DALK IN MUSCULOSKELETAL DISEASES

Massage is indicated in promotion of the health as well as for curative purposes. The most common medical conditions to visit a complementary and alternative medicine were back pain, neck pain, and other joint pain. Back pain is the most common cause...
for seeking complementary and alternative treatments. Dalk has a great potential in alleviation of symptoms in musculoskeletal disorders and the following table delineates various indications of massage in Unani medicine:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>DISEASES</th>
<th>ROGHANIYAT (THERAPEUTIC OILS)</th>
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<tbody>
<tr>
<td>2.</td>
<td>Wajaal Mafasil Barid (Chronic Arthritis due to cold temperament)</td>
<td>Roghane Sosan, Roghane Qust, Roghane Nardin, Roghane Narjeel, Roghane Nargis, Roghane Chameeli Safaid, Roghane Arand, Roghane Sambul, Roghane Hanzal, Roghane Jundbedaster, Roghane Khndral, Roghane Jouz Rum</td>
</tr>
<tr>
<td>3.</td>
<td>Wajaal Mafasil Yabiss (Arthritis due to dry temperament)</td>
<td>Roghane Badam, Roghane Kaddu, Roghane Gul</td>
</tr>
<tr>
<td>4.</td>
<td>Wajaal Mafasil Balghama (Chronic Arthritis due to phlegm)</td>
<td>Roghane Dhaatoora, Roghane Hina, Roghane Aauraj (Roghane Haft Barg), Roghane Bed Anjeer, Roghane Nardeen, Roghane Qust, Roghane Badam Talkh, Roghane Harmal, Roghane Naranj, Roghane Baboona, Roghane Shibit, Roghane Sambul</td>
</tr>
<tr>
<td>5.</td>
<td>Wajaal Mafasil Soudawi (Chronic Arthritis due to black bile)</td>
<td>Roghane Sosan, Roghane Qust, Roghane Bed Anjeer, Roghane Qurtium, Roghane Baboona</td>
</tr>
<tr>
<td>6.</td>
<td>Wajaal Mafasil Redhi (Arthritis due to accumulation of Riyah</td>
<td>Roghane Biskhappra, Roghane Gul, Roghane Kunjad, Roghane Baboona, Roghane Zanjabeel, Roghane Shibit</td>
</tr>
<tr>
<td>7.</td>
<td>Tahajjure Mafasil (Ankylosing arthritis)</td>
<td>Roghane Biskhappra, Roghane Baboona, Roghane Chobchini, Roghane Sosan</td>
</tr>
<tr>
<td>8.</td>
<td>Wajaul Warik Barid wa Murakkah (Coxycydinia)</td>
<td>Roghane Shibit, Roghane Farflyun, Roghane Handaqqooni, Roghane Arand, Roghane Qust, Roghane Aaqarqarava, Roghane Hina, Roghane Jundbedaster</td>
</tr>
<tr>
<td>10.</td>
<td>Niras Barid (Chronic Gout due to cold temperament)</td>
<td>Roghane Sosan, Roghane Sambul, Roghane Ghar, Roghane Suddah, Roghane Hanzal</td>
</tr>
</tbody>
</table>

In Unani system of medicine, diseases took place due to alteration in Mizaj-e-Tabai (Normal temperament) of the body. Any change in normal temperament of the body to abnormal temperament is known as Sue-Mizaj (ill-temperament). Sue Mizaj is divided into two types: Sue Mizaj Sada and Sue Mizaj Maddi. Sue Mizaj Sada involves an alteration in Mizaj only without involvement of madda (substance or matter); while, Sue Mizaj Maddi (abnormal substantial temperament) involves imbalance in both, Mizaj and Madda. Sue Mizaj Sada is treated by returning the Sue Mizaj (ill-temperament) to Mizaj-e-Tabai (Normal temperament) by the means of specific drugs and regimen. In Sue Mizaj Maddi (abnormal substantial temperament) treatment starts with evacuation of abnormal Khilf/ Madda (Humour) after that specific Tadbearer (regimen) should be used according to nature of the disease. Roghaniyat (medicated oils) should be used firstly only in the diseases of sue Mizaj sada, but in cases of Sue Mizaj Maddi, Roghanyiat (medicated oils) should be used after evacuation of morbid matter. In Unani medicine basic principle for the treatment of the disease is Haj Biz Zid (Heteropathy). Hence, for Har Amraz (Hot temperament diseases) Barid Roghanyiat (cold temperament oils) should be used, and for Barid Amraz (cold temperament diseases), Har Roghanyiat (Hot temperment oil) should be used. 3-6

**SCIENTIFIC REPORTS**

Various studies have been conducted which have proved the effectiveness of Dalk (massage) in musculoskeletal diseases and its related symptoms. Arshid et al reported the efficacy of Dalk Layyain with Raughan Zaitun in Waja uz Zahr (low back pain). Cherkin et al in a RCT found that both relaxation and structural massages are treatment of choice in chronic low back pain. Furlan et al in a systemic review detected the efficacy of massage in subacute and chronic nonspecific Low Back Ache. Majchrzycki et al In a Prospective Randomized clinical Trial found that Deep tissue massage in chronic Low Back Ache patients had been effective due to pain alleviation. Gufran et al reported efficacy of Dalk Layyen (soft massage) with Roghane Gul Aakh in alleviating pain, difficulty and tenderness associated with Cervical Spondylisis. Kong et al reported that massage therapy is an effective intervention that produces immediate relief in neck and shoulder pain. Lone et al reported the potential effects of Roghan Gul Aak in the treatment of Tahajjure-Mafasil (frozen shoulder). Furlan et al in a meta-analysis found that Massage in acute/ sub acute nonspecific Low Back pain had significantly better results in alleviation of pain and disability compared to no treatment or placebo. They also noted that massage in comparison to exercise significantly improved disability in chronic and nonspecific pain. Perlman et al found that massage therapy is efficacious and well tolerated in Osteo Arthritis of the knee and its beneficial effects persist for weeks after cessation of the treatment. Anderson et al suggested that massage is beneficial as a conjunctive therapeutic treatment in RA patients. Singh et al found that massage plays a vital role in improving the signs and symptoms of sciatica.

**CONCLUSION**

Massage has been a method of treatment for centuries and gaining popularity as a complementary and alternative medicine. Clinical trials shows efficacy in various diseases of the musculoskeletal system. For better results it is necessary that Unani drugs and medicated oils both should be used according to the Mizaj of the disease, only in cases of Sue Mizaj Sada alone medicated oil is useful, if disease is prolonged then only massage is not providing satisfactory results, then it is necessary that drug therapy along with massage therapy should be used according after evacuating the morbid matter. In some cases efficacy of massage has been equivocal probably due to irreverence of basic principles of Unani. In Unani system of medicine, Medicated oil should be used according to the Mizaj and nature of the disease. There is a long list of medicated oils which should be used in various conditions of the musculoskeletal disorders. These therapeutic oils should be chosen appropriately as indicated in Unani literature for better efficacy.
REFERENCES


