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## Potential benefits of *hijamah* in musculoskeletal disorders

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### REVIEW ARTICLE

### ABSTRACT

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Musculoskeletal disorders are major public health problem which needs prompt intervention for its management. There are four methods of treatment in practice in Unani system of medicine i.e. regimenal therapy (*Ilaj-bil-Tadbeer*), dietotherapy (*Ilaj-bil-Ghiza*), drug therapy (*Ilaj-bil-Dawa*) and surgery (*Ilaj-bil-Yad*). Regimenal therapy includes cupping (*hijamah*), venesection (*fasd*), leeching (*taaleeque*), Turkish bath (*hammam*), exercise (*riyazat*), massage (*dalak*) etc. Regimenal therapy particularly cupping therapy is used for the treatment of a number of musculoskeletal disorders like neck pain, shoulder pain, back pain, osteoarthritis etc. Musculoskeletal disorders affect the body's muscles, joints, tendons, ligaments and nerves. They are the most common cause of severe long-term pain and physical disability, and they influence hundreds of millions of people around the world. In clinical practice, *hijamah* is regularly observed to bring about pain relief and to increase a patient's general wellbeing as well. The procedure of *Hijamah* is economical, easy and safe and can reach out to the mass easily.

Keywords: Regimenal therapy, *Hijamah*, Cupping, Musculoskeletal disorder.

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### INTRODUCTION

Musculoskeletal disorders are major public health problem which needs prompt intervention for its management. Although allopathic treatments and technologies are abundant, some patients have found that these have not provided a satisfactory solution (WHO, 2002). The World Health Organization has considered the development of traditional medicine (TM) in order to implement the slogan "Health for all by the year 2000 AD". The decision was based on two foundations; first, lack of access of a great number of people (up to 80% in some countries) to primary healthcare and second, dissatisfaction from the outcomes of treatments by modern medicine, especially in relation to chronic diseases and the side effects of chemical drugs (WHO, 2002).

Unani medicine is the science by which we learn the various states of the body in health and diseased condition, and the means by which health deteriorates and subsequent course of action (Ahmad and Qadeer, 1998). Unani system of medicine is based on the doctrine of humoral theory. The balance of body humours leads to health and their misbalance result in disease. It describes six essential factors (*asbab-e-sittah-zaruriyah*) for

maintaining health and preventing disease, which include air, food & drink, body movement & repose, mental movement & repose, sleep & wakefulness and excretion & retention (Akhtar & Siddiqui, 2008).

In Unani system of medicine diseases are treated by using different modes of treatment namely; regimenal therapy (*Ilaj-bil-Tadbeer*), dietotherapy (*Ilaj-bil-Ghiza*), drug therapy (*Ilaj-bil-Dawa*) and surgery (*Ilaj-bil-Yad*). *Tadbeer* means regimen and *Ilaj-bil-tadbeer* refers to treatments through various regimes. It includes various methods like *dalak* (massage), *riyazat* (exercise), *hammam* (Turkish bath), *hijamah* (cupping), *fasd* (venesection), *taleeque* (leeching), *amal-e-kai* (cauterization) etc. (Ahmad & Qadeer, 1998). Many regimes like cupping therapy, exercise, leech therapy etc. are used in a number of diseases including musculoskeletal disorders like neck pain, back pain, osteoarthritis, rheumatoid arthritis etc.

Cupping (*Hijamah*) has been used for thousands of years. The ancient Egyptians, Greeks and Chinese used to practice cupping therapy. The cupping treatment has been mentioned in oldest recorded medical textbook *Ebers Papyrus*, written in approximately 1550 BC in Egypt. The prophetic medicine also recommends cupping

therapy. Narrated Jabir bin Abdullah: I heard the Prophet saying, "If there is any healing in your medicines, then it is in cupping, a gulp of honey or branding with fire (cauterization) that suits the ailment, but I don't like to be (cauterized) branded with fire" (Al-Bukhari, 1996).

#### MUSCULOSKELETAL DISORDERS

Musculoskeletal diseases are significant public health problem due to their high impact on disability, personal suffering, absence from work and the direct and indirect costs to the health care system. According to the statistics of global burden of disease which has been developed by WHO, musculoskeletal diseases contribute 37% of the disease burden (Johnson et al., 2011). Musculoskeletal conditions are diverse group with regard to pathophysiology but linked anatomically and by their association with pain and impaired physical function. They encompass a spectrum of conditions, from those of acute onset and short duration to lifelong disorders including osteoarthritis, rheumatoid arthritis, osteoporosis, and low back pain. The prevalence of many of these conditions increases markedly with age, and many are affected by lifestyle factors, such as obesity and lack of physical activity (Woolf & Pfleger, 2003).

According to the ICMR Task-Force Project Report 2012, the prevalence of musculoskeletal disorders (MSD) in Delhi study was found to be 7.08%. The prevalence rate of rheumatoid arthritis was 0.17%, osteoarthritis-3.28%, spinal disorder-4.80%, non-specific body ache and pain-0.59%, respectively. India is experiencing a rapid transition with increasing burden of non-communicable diseases like obesity, cardiovascular disease, diabetes, hypertension, cancer, MSD, stress etc. It has been estimated that chronic non-communicable diseases account for 53% of all deaths and 44% of disability adjusted life years (DALYs) lost in 2005 (Sharma, 2012).

The indicators of musculoskeletal disorders are pain related to the musculoskeletal system, bones and joints; limited mobility; the ability to perform activities of daily living and limited participation in society because of musculoskeletal complaints (WHO, 2003).

#### HIJAMAH (CUPPING)

Cupping is a procedure of application to the skin by a glass or bamboo vessel from which air has been exhausted by heat or of a special suction apparatus in order to draw blood to the surface. Cupping therapy in Arabic is known as *Hijamah*. *Hijamah* is Arabic word which means 'to reduce in size' or 'to suck'. It is a method for local evacuation or diversion of morbid humors in which a horn or a cup is attached to the surface of the skin of the affected part through negative pressure created by vacuum. The vacuum can be created by the heat or suction (Arzani, 1940).

#### Types of hijamah

Broadly there are two types of *Hijamah* namely *hijamat-bil-shart* and *hijamat-bila-shart*:

**(a) Wet cupping (*Hijamat-bil-shart*):** Cupping with scarification i.e. cups are positioned after making incision

or pricks on the skin of the affected area. *Hijamat-bil-shart* works on the principle of *tanqiya-e-mavad*, i.e. evacuation of morbid matters from the affected area.

**(b) Dry cupping (*Hijamat-bila-shart*):** Cupping without scarification i.e. cups are placed without making incision or pricks on the skin of the affected area. Vacuum can be created either by suction or by using fire. *Hijamat-bila-shart* works on the principle of *imala-e-mavaad* that is diversion of morbid humors from one site to another (Baghdadi, 2005; Ibn Sina, 1995; Kabiruddin, 1954; Masih, 1986).

#### BENEFITS OF HIJAMAH IN MUSCULOSKELETAL DISORDERS

*Hijamah* is indicated in many MSD like rheumatoid arthritis, pain in joints (Masih, 1986; ), sciatica, shoulder pain (Baghdadi, 2005; Hamdani, 2001) etc. *Hijamah* promotes bleeding through the superficial small vessels located in the muscles to get rid of the local congestion (*imtal*) in the body (Razi, 1991). Hong et al. (2011) reported that cupping therapy works via creating specific changes in local tissue structures as a result of local negative pressure in the cups used which stretches the nerve and muscle causing an increase in blood circulation and causing autohemolysis.

*Hijamat-bil-shart* (wet cupping) induced skin laceration creates a vacuum on the skin and draws out a small amount of blood. Local damage of the skin and capillary vessels (induced by wet cupping) may cause a nociceptive stimulus that stimulates diffuse noxious inhibitory control in addition to the affective component of chronic musculoskeletal pain. This may relieve pain associated with the affective component through the limbic response. Therefore, the tactile stimulus of wet cupping may be responsible for the analgesic effect (Sayed et al., 2013). The reductions in pain scores can be attributed to sound rationale as cupping therapy can elicit the release of morphine like substances (endorphins), serotonin or cortisol which can ultimately lead to pain relief and alter the physiological status of the individual. At a biological level like acupressure and acupuncture, cupping therapy works by stimulating or activating the immune system; enkephalin secretion; neurotransmitter release, vasoconstriction and dilatation and the gates for pain in the CNS which interpret pain sensation (Ullah et al., 2007).

The cupping operation increases the ability and activity of the immunity system due to the increased activity of the reticuloendothelial system, and the good blood flow through the tissues and organs heightens the immunity of the body (Sheikho, 2011). *Hijamah* affects the muscles by stimulating the expansion of blood vessels, hence increase blood flow and facilitates the flow of lymph. It also affects joints by increasing blood flow to the joint and secretion of synovial fluids.

If there is incursion of coldness (*barudat*) in certain body part, *hijamah* is used to provide heat to that part by increasing the blood circulation (Masih, 1986). John

Brazier described the mechanism of cupping. He concluded that the application of cupping is very simple but its effects are dramatic as our health and immune system are totally reliant on the movement of blood and body fluids; oriental medicine teaches us that all pain is due to stagnation of these systems. This stagnation can be a result of injury, stress, lack of blood supply or invasion of cold in the body and joints. Whatever the cause, cupping application on the specific points provide warmth and helps to release the stagnation of blood and body fluids and ultimately results in reduction of pain (Azam, 2007). *Hijamah* is applied to increase local circulation of blood and lymph and to relieve painful muscle tension. In clinical practice cupping is regularly observed to bring about pain relief and to increase patient's general well being (Lauche, 2011). Sayed et al. (2013) proposed Taibah theory for scientific mechanism of *hijamah*. They relate the principles of *hijamat-bil-shart* (wet cupping) with the principles governing excretory functions of kidney to the extent that wet cupping may be regarded as an artificial kidney that performs skin capillary filtration. The Taibah theory explains the effect of *hijamah* in relieving pain, breakage of tissue adhesions, improving blood and lymphatic circulation and increase in innate and acquired immunity (Syed et al., 2013).

According to a review done by Cao et al. (2010) there is an improvement in the number and quality of clinical studies on cupping therapy during the last 50 years. Among the top 20 studies, the studies on MSDs were those of cervical spondylosis (19 studies), lumbar sprain (19 studies), arthritis (10 studies) and sciatica (7 studies). In two different studies wet-cupping was found to have potential effect in reducing current pain associated with persistent non-specific low back pain (Ali, 2013; Kim et al., 2011). A study on cupping therapy in Carpal tunnel syndrome (CTS) found to be effective in relieving the pain and other symptoms related to CTS (Michalsen et al., 2009). Lauche et al. (2011) found effectiveness of dry cupping in chronic non specific neck pain. A study done by Kim et al. (2012) found out that cupping therapy and an exercise program may be effective in reducing pain and improving neck function in video display terminal workers (Kim et al., 2012).

## CONCLUSION

Musculoskeletal disorders are major public health problem which needs prompt intervention for its management. As we know that allopathic treatments and technologies are abundant, whereas, some patients have found that these have not provided a satisfactory solution. All the above cited actions of *hijamah* have potential benefits in treating MSD. Numerous studies on cupping therapy showed significant improvement in various musculoskeletal disorders. The procedure of *Hijamah* is economical, easy and safe and can reach out to the mass easily. Clinically *hijamah* helps in treating number of musculoskeletal disorders but to ascertain its efficiency and safety on scientific parameters, comprehensive clinical studies and medical & scientific

evaluation of mechanism of *hijamah* are needed to be done.

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