

EFFICACY OF WET CUPPING IN THE MANAGEMENT OF LOW BACK PAIN: A CASE  
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**ABSTRACT**

**Background:** It is estimated that 540 million individuals worldwide suffer from low back pain. With an 84% lifetime prevalence, low back pain is one of the most common illnesses and grounds of work absences globally. Wet cupping therapy is one of the earliest recognized medicinal practices. **Objective:** This case series aims to show how wet cupping affects lower back pain. **Intervention:** Six patients who complained of low back pain were included to receive four sittings of wet cupping. Two large-sized cups (6.5 cm) were applied on the lumbosacral region once every 7 days for 28 days. The visual analogue scale (VAS) was used to statistically evaluate the patients at baseline, 7 days, 14 days, and 28 days. **Results:** Using the Friedman test, statistically significant improvements ( $p=0.00044$ ) were observed in all patients following the intervention. **Conclusion:** It's been demonstrated that wet cupping works well for relieving low back pain. So, we can conclude that for individuals with low back pain, wet cupping is a successful, safe, practical, and reasonably priced treatment plan.

**KEYWORDS:** Wet cupping; Low back pain; Unani medicine; VAS.**INTRODUCTION**

Pain is derived from the Latin word 'Poena', which means punishment or penalty.<sup>[1]</sup> The International Association for the Study of Pain defines pain as an unpleasant sensory and emotional experience associated with existing or potential tissue damage.<sup>[1]</sup> In Unani Medicine, low back pain is additionally referred to as *Waja uz Zahr* which comes under the domain of *Waja ul Mafasil* (arthritis).<sup>[2]</sup> In Arabic, the words *Waja uz Zahr* signify "pain" and "back," respectively.<sup>[3]</sup> Up to 84% of people will experience low back pain at some point in their lives, and 23% of people will experience low back pain chronically. Low back pain is estimated to impair 11–12% of the population.<sup>[4]</sup> The age group of 45–64 has the highest incidence.<sup>[5]</sup>

*Waja uz Zahr* can originate from the lumbar vertebrae, deeper to superficial muscles, and the lumbosacral region as a result of an excessive amount or accumulation of *Baroodat* (cold) and *Balgham kham* (raw phlegm).<sup>[6]</sup> The primary reason is thought to be the buildup of aberrant *balgham* in the joint structures of the lumbar region, which results in *sue-i-mizaj* (abnormal temperament) and leads to discomfort and tenderness in these joints.<sup>[2]</sup> Approximately eighty percent of backaches are caused

by sprained ligaments, disc-related issues, and strained back muscles as a result of back abuse.<sup>[6]</sup> Pain and disability are the two main symptoms associated with low back pain.<sup>[8]</sup> It usually primarily impacts the lumbosacral region, buttocks, and thighs. It is asymmetrical and is unlikely to extend beyond the knee.<sup>[9]</sup>

There are four main therapeutic options for low back pain management: Pharmacotherapy (non-steroidal inflammatory drugs, opioids, muscle relaxants), injectable form of treatment (epidural steroid injection), physical therapy (exercise therapy, transcutaneous electrical nerve stimulation, lumbar support, massage therapy), and surgical intervention.<sup>[4]</sup> Every prevailing pain-relieving regimen that is intended to be used in the present day is only short-term and exerts obvious and obnoxious side effects.

Wet cupping is a valuable therapeutic method for managing a variety of painful ailments. Given its great benefits and minimal risk of harm, this regimen could be ideal for treating mild backaches. A minor surgical excretory procedure known as "wet cupping" increases blood clearance and waste excretion through the skin by

causing superficial skin scarification to open the skin barrier, generating a pressure gradient and traction force across the skin and underlying capillaries to drain interstitial fluids.<sup>[10]</sup>

## CASE DESCRIPTION

### Case 1

This patient was a 40-year-old male driver who attended the outpatient department of the National Institute of Unani Medicine on 04/04/2023 with complaints of pain in the lower back for 2 months. He had no history of trauma, diabetes mellitus, or hypertension. His vitals were stable (BP=130/80 mmHg, Pulse rate = 72/min, Respiratory rate = 20/min, and temperature 98.7<sup>0</sup> F). X-ray of the lumbosacral spine was normal and his ECG was normal. The investigations of the patient before starting the treatment are shown in table no.1.

### Case 2

This patient was a 45-year-old male businessman who attended the outpatient department of the National Institute of Unani Medicine on 06/04/2023 with complaints of pain in the lower back for 4 months. He had no history of trauma, diabetes mellitus, or hypertension. His vitals were stable (BP=140/80 mmHg, Pulse rate = 74/min, Respiratory rate = 20/min, and temperature 98.7<sup>0</sup> F). X-ray of the lumbosacral spine was normal and his ECG was normal. The investigations of the patient before starting the treatment are shown in table no.1.

### Case 3

This patient, a 35-year-old male driver, came to the National Institute of Unani Medicine's outpatient clinic on August 4, 2023, complaining of lower back pain that had persisted for a month. He had no history of trauma, diabetes mellitus, or hypertension. His vitals were stable (BP=120/70 mmHg, Pulse rate = 70/min, Respiratory rate = 18/min, and temperature 98.6<sup>0</sup> F). X-ray of the

lumbosacral spine was normal and his ECG was normal. The investigations of the patient before starting the treatment are shown in table no.1.

### Case 4

On April 10, 2023, the 30-year-old male patient, a driver, went to the National Institute of Unani Medicine's outpatient department complaining of lower back pain that had persisted for four months.. He had no history of trauma, diabetes mellitus, or hypertension. His vitals were stable (BP=130/90 mmHg, Pulse rate = 75/min, Respiratory rate = 21/min, and temperature 98.5<sup>0</sup> F). X-ray of the lumbosacral spine was normal and his ECG was normal. The investigations of the patient before starting the treatment are shown in table no.1.

### Case 5

This patient was a 50-year-old male driver who attended the outpatient department of the National Institute of Unani Medicine on 12/04/2023 with complaints of pain in the lower back for 15 days. He had no history of trauma, diabetes mellitus, or hypertension. His vitals were stable (BP=125/75 mmHg, Pulse rate = 76/min, Respiratory rate = 20/min, and temperature 98.2<sup>0</sup> F). X-ray of the lumbosacral spine was normal and his ECG was normal. The investigations of the patient before starting the treatment are shown in table no.1.

### Case 6

This patient was a 38-year-old male driver who attended the outpatient department of the National Institute of Unani Medicine on 15/04/2023 with complaints of pain in the lower back for 3 months. He had no history of trauma, diabetes mellitus, or hypertension. His vitals were stable (BP=120/70 mmHg, Pulse rate = 71/min, Respiratory rate = 22/min, and temperature 98.2<sup>0</sup> F). X-ray of the lumbosacral spine was normal and his ECG was normal. The investigations of the patient before starting the treatment are shown in table no.1.

**Table no. 1: Investigations before Wet cupping.**

Investigations	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Hb (gm%)	12.1	14.5	13.1	14	12.8	13
BT (minutes)	3.30	3	3.50	4	4.20	4.5
CT (minutes)	6.30	6.50	6	7	7.2	7.5
HIV I/II	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive	Non-reactive
HBsAg	Negative	Negative	Negative	Negative	Negative	Negative

Hb; Hemoglobin, BT; bleeding time, CT; Clotting time.

**Informed consent:** The patient was willing to this study and informed consent was taken before the start of the intervention.

### Intervention

Before beginning each session of treatment, the patients were instructed to rest comfortably on the bed in the prone position, and their vital signs were taken. The selected area for treatment was exposed, shaved, and then cleansed with betadine solution. The cup was placed up at the desired spot, and a manual suction was used to

make the air inside the cup more dense. The cup clings to the skin and is left for 10 min. Using sterile surgical blades in sizes 15–21, superficial incisions were produced on the skin using the "multiple superficial incisions" technique. The cup was then placed back on the skin, using the same manner described above, until it was filled with blood from the capillary vessels. Once the blood had coagulated, the cup was taken out, and the cupped region was cleaned with antiseptic lotion, bandaged with antiseptic solution, and then the bandage

was taken off a day later. After the procedure, patients were asked to rest for at least 10 minutes.

**Site of cupping:** Lumbosacral region, as shown in Figure No. 1.

**Size of cups:** 6.5 cm (large cups).

**Number of cups used:** 2.

**Number of sittings:** 4 (once weekly for four weeks).

**Duration of Study:** 28 days.



**Fig. no. 1: Application of cups in lumbosacral region.**

#### Assessment

The pain was assessed on the 0<sup>th</sup> day, 14<sup>th</sup> day, 21<sup>st</sup> day, and 28<sup>th</sup> day on the basis of visual analogue scale.

#### RESULTS

After the four sittings of wet cupping, there was a significant improvement ( $P= 0.00044$ ) in pain as shown in Table No. 2. The Freidman test was used for statistical analysis.

**Table no. 2: Effect of wet cupping on VAS.**

VAS	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
0 <sup>th</sup> day	9	8	8	7	7	9
7 <sup>th</sup> day	8	7	6	5	6	7
14 <sup>th</sup> day	6	5	4	4	5	5
28 <sup>th</sup> day	3	4	2	3	4	2

#### DISCUSSION

The outcome of this case series shows that wet cupping provides an opportunity to alleviate low back discomfort. Six patients with lower back pain were followed up on for 28 days in our case series. For local application, wet cupping was administered to the patients. In the conventional paradigm, non-steroidal anti-inflammatory drugs, opioids, muscle relaxants, steroids, and surgery can somewhat alleviate symptoms in a few cases but not entirely. Therefore, it is the need of the hour to develop a therapy that can manage pain without any side effects. With the advancements made in the medical sciences, wet cupping can work wonders in such circumstances. Given the aforementioned factors, wet cupping was chosen to evacuate morbid humours from the body that cause pain and was found to be effective in this case.

In Unani medicine, Wet cupping functions based on the *Tanqiya-i-Mawad* principle, which involves removing the morbid matter from the affected area.<sup>[11,12]</sup> *Gālin* has stated that the usage of a *Hijama* becomes extremely beneficial when the humours in the afflicted joint thicken.<sup>[13]</sup> It facilitates the elimination of the *Akhlāt-i-fāsida* from the body by opening the pores in the skin, enhancing blood circulation, nourishing the affected area with fresh blood, and strengthening the eliminative function. It aids in reestablishing unbalanced qualities.

i.e., *Hār* (heat), *Bārid* (cold), *Ratab* (moistness), *Hābis* (dryness).<sup>[11]</sup>

The physiological mechanisms through which wet cupping might function remain uncertain. According to certain theories, various components contribute to the effects of wet-cupping, such as (I) Neural, (II) Haematological, & (III) Immune system functioning.<sup>[14,15]</sup> Wet-cupping may specifically "suppress pain" by influencing three different neurological systems: (a) The "analgesia" system in the brain and spinal cord, which consists of the Raphamagnus nucleus, the Nucleus reticularis paragigantocellularis, the periaqueductal grey, and periventricular regions (b) the brain's opiate system (endorphins and enkephalins), and (c) most influential, through inhibition of pain transmission by simultaneous tactile sensory signals.<sup>[16]</sup> Furthermore, it is possible that diffuse noxious inhibitory controls (DNICs) play a role in the observed pain-relieving effect.<sup>[16]</sup>

In the neural system, the effect occurs through the regulation of neurotransmitters and hormones like serotonin, dopamine, endorphin, acetylcholine, etc.<sup>[14,17,18]</sup> In the hematological system, the primary effects occur by these two pathways: 1. Regulation of coagulation and anti-coagulation systems like a decrease in the level of a hematological element such as

fibrinogen<sup>[19]</sup> 2. Reduction in the hematocrit, followed by an increase in blood flow and oxygenation of the end organs.<sup>[15,17]</sup> In the immune system, the main effects occur by these three pathways: 1. Irritation of the immune system by producing local simulated inflammation followed by activation of the complementary system and increased level of immune products such as interferon and tumor necrotizing factors.

2. Organize lymph traffic and boost lymph flow through lymph vessels.

3. Effect on thymus.<sup>[14,17]</sup>

A few potential limitations of this case series include a small sample size, a brief study period, and constrained evaluation parameters. Thus, it is advised that longer-term, higher sample-size clinical trials using further thorough assessment scales be conducted in the future. Wet cupping's precise mode of action requires further clarification. Therefore, analytical research is required to determine its direct impact on lower back pain.

## CONCLUSION

The current study's findings imply that wet cupping has a greater immediate therapeutic benefit than standard treatment or normal care. Following the treatment, the individuals did not report any adverse effects.

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## REFERENCES

- Sultan ST. Guidelines for basic understanding and management of pain. Pain and Resuscitation Society Sindh, 2017.
- Razi Z. Kitabul Hawi. Vol. 11. New Delhi: CCRUM, Ministry of Health and Family Welfare, Govt. of India, 2004.
- Tashani OA, Johnson MI. Avicennas concept of pain, 2010; 5(September).
- Balague, F., Mannion, A.F., Pellis e, F., Cedraschi, C., 2012. Non-specific low back pain. *Lancet*, 379: 482–491. [https://doi.org/10.1016/S0140-6736\(11\)60610-7](https://doi.org/10.1016/S0140-6736(11)60610-7).
- Goldman L, Schafer AI, Cecil RL. Goldman-Cecil Medicine. Philadelphia, PA: Elsevier, 2020.
- Ahmad KR. Tarjuma Shahrah Asbab. Vol. 3. New Delhi: CCRUM, Ministry of Health and Family Welfare, Govt. Of India, 2010.
- Verhelpen S. Non-Specific Low Back Pain. *Physiopedia*, 2020; 1-16.
- Koes, B.W., Van Tulder, M.W., Thomas, S., 2006. Diagnosis and treatment of low back pain. *Br. Med. J*, 332: 1430–1434. <https://doi.org/10.1136/bmj.332.7555.1430>.
- Cohen, S.P., Argoff, C.E., Carragee, E.J., 2009. Management of low back pain. *BMJ*, 338: 100–106. <https://doi.org/10.1136/bmj.a2718>.
- Kouser HV, Nayab M, Tehseen A, Mahfooz S, Ruqaiyya B, Anwar M. Evidence-based therapeutic benefits of cupping therapy (hijāma): A comprehensive review. *Journal of Drug Delivery and Therapeutics*, 2021; 11(4-S): 258–62. doi:10.22270/jddt.v11i4-s.4969
- Lari A, Nayab M, Tausif M, Lari JA, Alam MdA. Therapeutic potentials of hijama-bila-shart (dry cupping therapy): A Review. *International Journal of Unani and Integrative Medicine*, 2017; 1(1): 21–4. doi:10.33545/2616454x.2017.v1.i1a.6
- Nayab M, Anwar M, Qamri MA. Clinical study on waja-ul-mafasil and evaluation of efficacy of Hijamat-Bila-Shurt in the treatment. *Indian J tradit knowl*, 2011; 10(4): 697-701.
- Qamri AM. Minhaj ul Ilaj (Urdu Translation of Ghina Muna), New Delhi: Central Council for Research in Unani Medicine, Ministry of Healthand Family Welfare. Govt. ofIndia, 2008.
- Rozenfeld E, Kalichman L, New is the well-forgotten old: The use of dry cupping in musculoskeletal medicine. *Journal of Bodywork and Movement Therapies*, 2016; 20(1): 173-178. doi: 10.1016/j.bmt.2015.11.009.
- Farhadi K, Schwebel DC, Saeb M, Choubsaz M, Mohammadi R, Ahmadi A, The effectiveness of wetcupping for nonspecific low back pain in Iran: a randomized controlled trial. *Complementary Therapies in Medicine*, 2009; 17(1): 9-15. doi: 10.1016/j.ctim.2008.05.003.
- Farhadi K, Schwebel DC, Saeb M, Choubsaz M, Mohammadi R, Ahmadi A. The effectiveness of wet-cupping for nonspecific low back pain in Iran: A randomized controlled trial. *Complementary Therapies in Medicine*, 2009; 17(1): 9–15. doi:10.1016/j.ctim.2008.05.003
- Hasan I, Standardization of Cupping Therapy Points and Mechanism of Action in the Light of Science, *Indo American Journal of Pharmaceutical Science*, 2018; 5(1): 249-261.
- Nimrouzi M, Mahbodi A, Jaladat AM, Sadeghfard A, Zarshenas MM, Hijamat in traditional Persian medicine: risks and benefits. *Journal of Evidence Based Complementary and Alternative Medicine*, 2014; 19(2): 128-136. doi: 10.1177/2156587214524578.
- Sultana A, Rahman K, Hijamat (cupping therapy) and gynecological diseases—A Review, *Journal of International Society for the History of Islamic Medicine (JISHIM)*, 2012; 10-11. (19-20-21-22): 127-35.