



Effective Management Of Low Back Pain By Dry Cupping Therapy: A Case Report

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ABSTRACT

Introduction: In Unani medicine, wet cupping (*Hijāma-bish-shart*) and dry cupping (*Hijāma-bila-shart*) are known for treating musculoskeletal conditions. While studies show the short-term benefits of dry cupping, its role as a standalone treatment needs further exploration. This case study highlights significant relief from low back pain (*Waja-uz-Zahar*) achieved through dry cupping alone, suggesting its potential as an effective treatment option.

Case presentation: This report presents a case of relief in low back pain by dry cupping therapy on muscular spasm due to early-stage lumbar spondylosis in a 38-year-old male patient with complaints of severe low back pain for 15 days. Localized tenderness and restriction of motion due to pain and muscle tightness were observed over the lumbar vertebrae and surrounding paraspinal muscles. Oswestry Disability Index (ODI) 2.1a questionnaire for functional disability and Visual Analog Scale (VAS) for pain were used as assessment criteria. Dry cupping was applied to the low back on both sides over the paraspinal muscles where tenderness was felt on daily basis for 10 days. The patient's disability score by ODI 2.1a dropped from 52% to 18% as severe impairment (81-100%) toward minimal disability (0–20%). Pain levels, measured by the VAS (0 = no pain, 10 = severest possible pain) decreased from 9 to 1.

Conclusion: In this case, low back pain treated with dry cupping showed significant improvement, with complete resolution of symptoms within 10 days of treatment.

Key Words: *Ilaj bi'l tadbeer*; regimenal therapy; *Hijama-bila-Shart*; dry cupping; *Waja-uz-Zahar*.

Introduction:

Unani scholars define health as the optimal functioning of the body, resulting from the harmonious balance of *Arkan* (primordial essence). The interaction of *Umoor Tabiya* (basic principles) at various levels gives rise to *Kaifiyyat* (Mizaj), *Akhlat* (Humour), *Arwaah* (Pneuma), *Quwa* (faculties), and *Tabiyat* (Physis), which are crucial for understanding effective disease management and diagnosis in Unani medicine. *Ilmul Asbab* plays a vital role in disease prevention and causation. Unani medicine emphasizes the importance of congruence between *Asbab* (causes), *Alamaat* (symptoms), and therapeutics. Consequently, understanding *Ilmul Asbab* is essential for developing a treatment strategy¹. Razi[9] explained that cupping releases toxic blood from small superficial vessels in muscles.

Musculoskeletal conditions, such as low back pain (*Waja-uz-Zahar*), are a leading cause of disability and discomfort worldwide¹. Unani medicine, a traditional system of healthcare, offers various regimental therapies for managing such conditions, including cupping (*Hijāma*), which encompasses wet cupping (*Hijāma-bish-shart*) and dry cupping (*Hijāma-bila-shart*)². Among these, dry cupping has gained attention for its potential in alleviating musculoskeletal pain³. Research has demonstrated the effectiveness of dry cupping in reducing pain intensity and improving functional ability in patients with low back pain⁴. However, some studies have highlighted the short-term effects of this therapy, sparking debate about its long-term benefits⁵. Nevertheless, the sustained effects of dry cupping have been reported in several cases, suggesting its potential as a valuable therapeutic approach for chronic pain management⁴.

This case study aims to present a detailed account of a patient with low back pain who experienced significant relief following dry cupping treatment. By exploring the patient's response to this therapy, we hope to contribute to the growing body of evidence supporting the effectiveness of dry cupping in managing low back pain and highlight its potential as a complementary therapy in modern healthcare.

Case presentation :

A 38-year-old male patient presented to the outpatient department with complaints of severe low back pain from the past 15 days. The pain was described as sharp and continuous, significantly affecting his daily activities. On physical examination, tenderness was noted over the lumbar vertebrae and surrounding paraspinal muscles, with restricted range of motion due to pain and muscle tightness. X-ray imaging reveals early-stage lumbar spondylosis, with pain attributed to muscular spasms resulting from the spondylosis changes.

The patient underwent dry cupping therapy daily^[5] for 10 days. Manual suction was created on the skin using cups over low back on the tender areas and the power of suction is medium^[6]. With a total time of 10 minutes^[4], 5-6 reusable acrylic cups of large diameter (5 cm and 6.5 cm), were used, at each session.

Following the procedure, the patient experienced significant pain relief, with the Oswestry Disability Index (ODI) 2.1a^[7], a well-recognized tool for assessing physical impairment. On the first day, the patient had a disability score of 52%, in the range, between 41-60%. It indicates that the patient's daily activities were significantly compromised, with the pain and physical limitations dominating their ability to function properly. However, after 10 days of daily dry cupping therapy, their score remains 18%, a leap into the category of minimal disability. This range (0-20%) shows a near-complete return to normal functioning, where pain is either mild or easily manageable, and daily activities can be performed with only minor discomfort or restrictions. Visual Analog Scale (VAS)^[4] is a tool for assessing pain intensity. Initially, the pain was reported at a level of 9 on the VAS, where 0 represents no pain and 10 represents severe pain. However, after undergoing dry cupping therapy for 10 consecutive days, the pain level was reduced to 1 and there was no tenderness upon palpation.

This case demonstrates the potential efficacy of dry cupping in managing pain associated with lumbar spondylosis and paraspinal muscle spasm, as the patient experienced complete resolution of symptoms within ten days. The patient was advised on preventive measures and scheduled for a follow-up in two weeks.

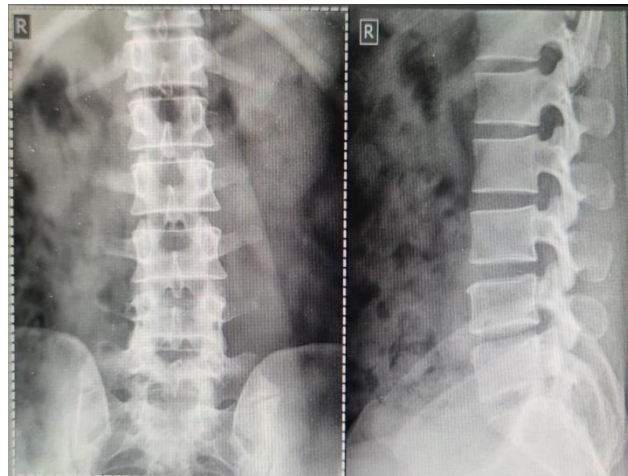


Figure 1: X-ray spine shows early lumbar spondylosis. That was the main cause of muscular spasms.

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Figure 2: Application of suction cups over paraspinal muscles in lumbar region

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Conclusion:

This case study illustrates the potential effectiveness of dry cupping therapy as a non-invasive treatment for managing severe low back pain associated with lumbar spondylosis and paraspinal muscle spasm. Over a period of 10 days, the patient experienced a substantial reduction in both pain intensity and functional disability, as demonstrated by the significant improvements in the Oswestry Disability Index (ODI) and Visual Analog Scale (VAS) scores.

The patient's initial ODI score of 52%, indicative of severe disability, was reduced to 18%, placing the patient in the minimal disability range, with daily activities largely restored. Similarly, the VAS score, which started at a severe pain level of 9, dropped to a minimal pain level of 1 following

treatment. These outcomes highlight the rapid improvement in symptoms and suggest that dry cupping can provide effective relief in cases of musculoskeletal pain linked to early-stage lumbar spondylosis.

Additionally, no adverse events or complications were reported during or after the cupping sessions, reinforcing the safety of this therapeutic approach when performed correctly. Based on these findings, dry cupping therapy may be considered a viable option for patients experiencing low back pain due to lumbar spondylosis, especially when muscular spasms are present. Further follow-up would be necessary to ensure long-term relief and to monitor for any recurrence of symptoms.

Discussion:

Low back pain is a common musculoskeletal condition that significantly impacts patients' quality of life and imposes a substantial burden on healthcare systems worldwide. Conventional treatments for low back pain often include medications, physical therapy, and in some cases, surgery. However, these approaches may not always provide satisfactory relief and are sometimes associated with side effects. As a result, there has been growing interest in alternative therapies, such as cupping (*Hijāma*), particularly within the frame work of Unani medicine.

Cupping including both wet cupping (*Hijāma-bish-shart*), and dry cupping (*Hijāma-bila-shart*), has been traditionally used to treat various ailments, including musculoskeletal pain. Dry cupping involves creating a vacuum on the skin using cups, which are believed to enhance blood circulation, relieve muscle tension, and reduce pain. The case presented in this study involved a 38-year-old male patient with severe low back pain radiating to the left leg, which showed significant improvement after undergoing dry cupping therapy. The patient reported a reduction in the disability score by ODI 2.1a from 52% to 18% as severe impairment (81-100%) toward minimal disability (0–20%). And also reduction in pain from 9 out of 10 on the Visual Analog Scale (VAS) to 1 within ten days, underscoring the potential efficacy of this treatment.

The therapeutic effects of dry cupping can be partially explained by the increase in local blood circulation and the resultant anti-inflammatory effects. Studies have suggested that the negative pressure applied during cupping may help to stimulate blood flow to the affected area, promoting the removal of metabolic waste products and enhancing oxygen delivery to tissues. This process can reduce inflammation and promote tissue repair, which may explain the rapid pain relief observed in this patient^[6].

Furthermore, the mechanical action of cupping on the skin and underlying tissues may influence neural pathways, leading to pain modulation. This is supported by research suggesting that cupping can activate endogenous opioid systems and modulate pain-related neurotransmitters, contributing to the analgesic effects observed^[7]. These neurophysiological changes could explain the immediate reduction in pain that the patient experienced after the first session of dry cupping therapy.

Several studies have explored the benefits of cupping therapy for musculoskeletal conditions. For instance, a randomized controlled trial by Teut et al. demonstrated that dry cupping was effective in reducing pain and improving quality of life in patients with chronic low back pain^[8]. Similarly, Kim et al. reported that cupping therapy significantly reduced pain intensity and improved mobility in patients with chronic low back pain^[9]. These findings align with the outcomes observed in the current case, where dry cupping led to a marked reduction in pain and a return to normal activities within a short period.

Despite the promising results, it is important to acknowledge the limitations of this case study. As a single-case report, the findings cannot be generalized to all patients with low back pain. Further research, particularly large-scale randomized controlled trials, is necessary to confirm the efficacy of dry cupping and to better understand the mechanisms underlying its therapeutic effects. Additionally, comparative studies examining the effectiveness of dry cupping against other conventional and alternative treatments for low back pain would be valuable.

This case highlights the potential of dry cupping as a safe and effective treatment for low back pain. The rapid and sustained pain relief observed in this patient suggests that dry cupping therapy could be a valuable addition to the therapeutic options available for managing low back pain. However, further studies are needed to validate these findings and to establish standardized protocols for the use of dry cupping in clinical practice.

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