

Available online on 15.12.2024 at <http://jddtonline.info>

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the CC BY-NC 4.0 which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited



Open Access Full Text Article



Case Report

Efficacy of Wet Cupping in the Management of Sciatica: A Case Report

Anam Tariq^{1*}, Niyazi Abdullah Khizar¹ , Mohd Nayab² , Abdul Nasir Ansari³¹ PG Scholar, Dept. of Ilaj Bit Tadbeer, National Institute of Unani Medicine, Bengaluru² Associate Professor, Dept of Ilaj Bit Tadbeer, National Institute of Unani Medicine, Bengaluru³ Professor, Dept of Ilaj Bit Tadbeer, National Institute of Unani Medicine, Bengaluru

Article Info:

Abstract



Article History:

Received 08 Sep 2024

Reviewed 23 Oct 2024

Accepted 19 Nov 2024

Published 15 Dec 2024

Cite this article as:

Tariq A, Khizar NA, Nayab M, Ansari AN, Efficacy of Wet Cupping in the Management of Sciatica: A Case Report, Journal of Drug Delivery and Therapeutics. 2024; 14(12):1-5 DOI: <http://dx.doi.org/10.22270/jddt.v14i12.6898>

*Address for Correspondence:

Anam Tariq, PG Scholar, Dept. of Ilaj Bit Tadbeer, National Institute Of Unani Medicine, Bengaluru

Sciatica, a prevalent and debilitating condition, is characterized by radiating pain along the sciatic nerve, often resulting from lumbar disc herniation, spinal stenosis, or degenerative disc disease. In Unani medicine, the condition is referred to as *Irq-un-Nasa*, considered a subtype of *Waja-ul-Mafasil* (joint pain). Unani texts attribute the cause of *Irq-un-Nasa* to the accumulation of morbid humors (*khilt*) like *Khilt-e-Balgham* or *Khilt-e-Dam*, causing inflammation and obstruction in the affected nerves and joints. This study evaluates the effectiveness of *Hijama* (wet cupping therapy) in treating sciatica through two case reports. Case 1 involves a 38-year-old female with L5-S1 disc herniation and left-sided sciatica, while Case 2 concerns a 42-year-old male with right-sided sciatica due to lumbar spondylosis. Both patients underwent four sessions of *Hijama* over 28 days. Results were measured using the Visual Analogue Scale (VAS) for pain assessment. These findings indicate that *Hijama* effectively alleviated sciatica pain in both cases. The therapeutic effect of *Hijama* is believed to involve neural, haematological, and immune mechanisms, promoting pain relief, blood circulation, and immune modulation. The results suggest *Hijama* as an effective, low-cost alternative for managing sciatica.

Keywords: *Irq-un-Nasa*, lumbar disc herniation, Low Back Pain, Unani medicine, *Hijama*, wet cupping therapy.

INTRODUCTION:

In clinical practice, back pain is a prevalent complaint that can be difficult to diagnose because of its wide range of possible causes. One of those etiologies is sciatica, which is characterized by radiating pain along the sciatic nerve, standing out for its debilitating nature and impact on the daily lives of patients. The causes of sciatica are usually lumbar disc herniation, spinal stenosis, or degenerative disc degeneration. Sciatica is caused by compression or irritation of the lumbar nerve roots. Sciatica patients may present with different clinical presentations; however, common symptoms include back pain, tingling, numbness, and weakness along the affected nerve distribution.^{1,2} It is an extremely prevalent complaint with an annual incidence of 1 to 5%. However, its prevalence in general population is 1.6% and in selected working population is 43%.³ In unani *irqunnasa* is an Arabic term, which means "name of a nerve" which originate from gluteal region and radiates toward lateral aspect of thigh and extends upto the ankle.^{4,5,6,7} *Irqunnisa* is a type of *wja ul mafasil*.^{1,8,9} A major cause of sciatica that significantly increases morbidity and impairs the

quality of life is lumbar disc herniation.¹ Sciatica discomfort is often unilateral, and it can start suddenly during physical exertion or develop gradually over time. Pain may be sharp and aching, may vary from a mild ache to severe burning, shooting, or tingling in nature which radiates along a broad pattern from the middle or lower buttock up to the dorsolateral aspect of the thigh in case of L5 nerve root compression, anterolaterally in case of L4 compression and posteriorly in thigh when compression is at S1 root. Sciatica can manifest as acute, sub-acute or chronic.¹⁰ middle age, smoking, mental stress and physically strenuous work are the risk factors of sciatica.³ The main cause of the *irqunnasa* is typically *khilt-e-dam* or *Khilt-e-Balgham kham wa galeez* which accumulates in the hip joint, but most of the time, the cause is *Khilt-e-Balgham* or a mixture of *Khilt-e-Balgham wa Safra*.^{11,10} The intensity of pain depends upon the *madda* (morbid matter) involves.¹²

According to *Ibn-e-Sina*, *Irq-un-Nasa* is a subtype of *Waja-ul-Mafasil*, in this condition the pain starts from the hip joint and radiates to the back of the thigh; and occasionally extends to the knee, ankle and up to the

toes. Ibn-e-Sina further explains that because of its chronicity and overabundance of morbid matter, the affected leg and thigh become weak and asthenic, which eventually leads to an inability to bend or to stand upright.¹³ the principal treatment of *Irq-un-Nasa* in Unani Medicine varies according to the underlying etiology and derangement in temperament (*Mizaj*). Evacuation (*Istefragh* or *Tanqia*) is necessary if morbid *khilt* is dominant either quantitatively or qualitatively. For *Irq-un-Nasa*, there are different kinds of regimens given, which are more effective with less adverse effects and, at the same time, cost-effective like *Hijama*, *Irsal-e-Alaqs* (Leech therapy), *Dalk* (massage), *Abzan* (Sitz Bath), and *Fasd* (Venesection). In unani system, *Hijama Bish Shart* is recommended for various subtypes of *waja ul Mafasil* and other diseases also including *irqunnasa*.^{13,4} Razi states that *Hijama bish shart* will be done over hip when disease starts from the site of pain. He further states, –If the humors become thick in the affected joint due to improper treatment *Hijama* becomes very useful for this condition. *Ibne Sina* writes under the treatment of *irqunnasa* that if the drug treatment is unable to treat the problem then *Hijama* (cupping) with and without scarification over the hip will be helpful. A *Hijama* is a type of minor surgical excretory procedure that opens the skin barrier by causing superficial skin scarification. It also improves blood clearance and waste excretion through the skin by creating a pressure gradient and traction force across the skin and underlying capillaries.¹⁴

PATIENT INFORMATION AND CLINICAL FINDINGS:

CASE 1: This patient was a 38-year old female housewife who attended the outpatient department of the National Institute of Unani Medicine on 8/05/2024 with complaints of pain in lower back for 2 months and radiates to the left lower leg. She had no history of trauma, diabetes mellitus or hypertension. Her vitals were stable (BP= 126/78 mmHg, Pulse rate= 72/min, Respiratory rate=20/min and temperature 98.6 °F). Her Hb was 13.2gm%, Bleeding time 2.30 minutes, Clotting time 5 minutes. Viral markers (HIV I & II, HBsAg) were carried out and found negative and nonreactive. She showed his previous investigation reports in which MRI of the lumbosacral spine revealed diffuse bulge of L5-S1 and postero central disc protrusion at L5-S1 levels with thecal sac indentation, lateral recess- neural foramen narrowing and exiting nerve root compression. X-ray lumbosacral spine showed lumbar spondylosis. Her ECG was normal. This hemodynamically stable patient was diagnosed with a case of sciatica based on general and specific (SLR – 30degree) examinations.

CASE 2: This patient was a 42-year-old male who attended OPD of the National Institute of Unani Medicine on 18/01/2024 with complaints of severe pain in the lower back for 8 months radiating to the right buttock, thigh and calf, for 15 days with numbness

and tingling sensation. He was a glass worker by occupation. He had no history of DMT2, Hypertension, or trauma. His Hb% was 14gm%, BT 2 minutes, CT 3.70 minutes. His vitals were stable (BP = 130/80 mmHg, Pulse rate = 86/min, Respiratory rate = 20/min, Temperature = 98.6°F) Viral markers (HIV I and II, HBsAg) were carried out and found negative and non-reactive. X-ray lumbosacral spine showed lumbar spondylosis. His ECG was normal. He showed his previous investigation reports in which MRI of the lumbosacral spine revealed a posterior disc bulge at L5-S1 level indenting the anterior thecal sac, causing mild spinal canal stenosis. The general examination of this hemodynamically stable patient was performed, including an SLR of the right leg, which was found positive at 30degree and diagnosed as a case of sciatica.

INTERVENTION:

After the assessment, First, the patient will be positioned correctly for *Hijama* and the area to be cupped will be exposed properly; hairs if present on the area will be removed to fix the cup firmly on the body. Negative pressure inside the cups will be created with the help of a vacuum pump and the cups will remain placed at that site for up to 10 minutes. Thereafter, these cups will be removed, and skin cleaned with spirit and betadine solution. At that specific part of back multiple superficial small incisions will be made in the form of pricks with 11 no. sterilized surgical blade. The same cups will be applied to the area of incision. During this procedure vitals and general condition of the patient will be monitored continuously to observe any adverse effects. Once the blood had coagulated, the cup was taken out, and the cupped region was cleaned with antiseptic lotion, and bandaged with antiseptic solution, The blood will be collected in a measuring pan. The dressing will be removed after 10-12 hours.

Site of cupping: Lumbosacral region, thigh and calf as shown in figure 1

Size of cups: 6.5 cm (large cups).

Number of cups used: 4

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

Duration of Study: 28 days.

ASSESSMENT:

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

RESULTS:

The assessment of the patients was done based on the Visual Analogue Scale (VAS) for pain. Before the first sitting the VAS score was 8 on 0 day, and on the last sitting it was 4, indicating significant improvement. In case2 before the first sitting it was 7 and after 28 days it was 4 which means there is a significant improvement was observed as shown in table 1.



Figure 1:

(TABLE 1) Show the Result According to VAS

VAS	0 day	7 th day	21 th day	28 th day
CASE 1	8	7	5	4
CASE 2	7	5	4	4

DISCUSSION:

Sciatica is an overwhelming ailment in which an affected person may experience pain or paresthesia in the distribution of the sciatic nerve or an associated lumbosacral nerve root.¹⁵ The outcome of these case studies shows that wet cupping provides an opportunity to alleviate sciatica. Two patients with lower back pain with radiating pain were followed up on for 28 days in our case study. For local application, wet cupping was administered to the patients. In conventional medicine, the available treatment is, oral NSAIDs, Opioid and non-opioid analgesics and surgery. The long term use of these medications causes many adverse effects. Therefore, it is the need of the hour to develop a therapy that can manage pain without any side effects. wet cupping was chosen to evacuate morbid humour 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.^{16,17}

According to *Gallin*, the use of cupping becomes very advantageous when the humours in affected joint thicken. It opens the skin pores, improves blood circulation, supplies fresh blood to the affected area, and fortifies the eliminative function, all of which help the body get rid of the *Akhlāt-i-fāsida*.¹⁸ The exact physiological mechanisms by which wet cupping may work are yet unknown. Various factors, including (I) neural, (II) haematological, and (III) immune system functioning, are thought to contribute to the effects of wet-cupping.¹⁸ particular, wet-cupping may "suppress pain" by affecting three distinct neural systems: (a) The "analgesia" system in the brain and spinal cord, which

includes the periaqueductal gray and periventricular areas the Raphae nucleus, the Nucleus reticularis paraventricularis (b) the brain's opiate system (endorphins and enkephalins), and (c) most influential, through inhibition of pain transmission by simultaneous tactile sensory signals.¹⁹ Moreover, diffuse noxious inhibitory controls (DNICs) might contribute partially to the pain-relieving effect witnessed.²⁰

It is also plausible that the observed analgesic effect is partially attributed to diffuse noxious inhibitory controls (DNICs).¹⁹ In the neural system, the effect occurs through the regulation of neurotransmitters and hormones like serotonin, dopamine, endorphin, acetylcholine etc.^{21,22,23} In the hematological system, the primary effects occur by these two pathways: 1. Regulation of coagulation and anticoagulation systems like a decrease in the level of a haematological element such as fibrinogen 2. Reduction in the hematocrit, followed by an increase in blood flow and oxygenation of the end organs.¹⁴

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 tumour necrotizing factors.

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

3. Effect on thymus.¹⁸ this reveals that *Hijama* not only induce evacuation and diversion but it has anti-inflammatory and demulcent effects as well.²⁰ it may provide quicker relief of leg pain in sciatica than conservative treatment.²⁴

CONCLUSION:

The results of this study suggest that wet cupping offers a more substantial immediate therapeutic benefit than conventional care or treatment. Following the treatment, the individuals did not report any adverse effects.

Acknowledgment: I owe a debt of gratitude to all authors for their inspiration, guidance, and assistance in helping me to put this work together.

Funding Source: No funding sources

Source of Support: Nil

Conflict of Interest: The authors report no conflict of interest.

Informed Consent: before the study intervention the patient gave their informed consent and the patient was willing to participate in it.

Author Contributions:

AT: Conceptualization, Writing, Data curation, Formal analysis, Investigation.

AAKKA: Writing and editing, Data curation, Formal analysis, Investigation, Software

MA: ORCID: Visualization, Validation, Writing review and editing

ANA: Email: Supervision

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Ethics approval: N/A

REFERENCES:

- 1) Moussa M, Akel M, Ziq A, Shah S, Hernandez S. When surgery is not the answer: A case of sciatica and patient preference
- 2) Bernstein I, Malik Q, Carville S, Ward S. Low back pain and sciatica: Summary of NICE guidance, British medical journal; 2017, pp.356. <https://doi.org/10.1136/bmj.i6748> PMID:28062522
- 3) Akhaddar A. Atlas of Sciatica: Etiologies, Diagnosis, and Management. Springer Nature; 2024 Jan 11. <https://doi.org/10.1007/978-3-031-44984-0>
- 4) Sheeraz M, Quamri MA, Ahmed ZA. A Comparative Clinical Study on the Effects of Mehjama Nariya (fire cupping) and Hijamat Bila Shurt (dry cupping) in Irqunnasa (sciatica). Spatula DD. 2013;3(4):161-6. <https://doi.org/10.5455/spatula.20131127023056>
- 5) Baghdadi IH. Kitabul Mukhtarar Fit Tib Vol.-4 New Delhi CCRUM;2007
- 6) Arzani A. Tibbe Akbar Deoband: Faisal Publications; YNM
- 7) Khan MA. Al-Ikseer New Delhi: Ejaz Publishing House; 2003
- 8) Majoosi ABA. Kamilus Sana'ah Vol.-1 part-2.New Delhi: CCRUM; 2010 .
- 9) Razi ABMBZ. Kitabul Hawi-11 New Delhi: CCRUM
- 10) Aziz A, Rather SA, Bhat SA. Comparative Clinical Study of Hijama bil shart (Wet Cupping) and Hijama bil nar (Fire Cupping) in Irq al-nasa'(Sciatica). Journal of Drug Delivery and Therapeutics. 2022 Feb 15;12(1-S):54-9 <https://doi.org/10.22270/jddt.v12i1-S.5212>
- 11) Khan F, Nayab M, Ansari AN. Management of Irq-Un-Nasa (Sciatica) by Fasd (Venesection): A Case Report. CellMed. 2022;12(2):6-1
- 12) Ali SJ, Nayab M, Tarique BM. Effect of Fasd (venesection) in the management of acute cases of Irqunnasa (Sciatica): a case series study. Res Rev J Herb Sci. 2016;5(1):17-21.]
- 13) Yaqoob M, Shamsi Y, Akhtar MW, Azam R, Jain A, Khan SA. A randomized controlled clinical study to evaluate the efficacy of Hijamah (wet cupping) in Irq-un-Nasa (Sciatica). JOURNAL OF RESEARCH IN TRADITIONAL MEDICINE. 2022 Mar 29;8(1):13 <https://doi.org/10.5455/jrtm.2022/135439>
- 14) Kouser HV, Nayab M, Tehseen A, Mahfooz S, Ruqaiyya B, Anwar M. Evidence-based therapeutic benefits of cupping therapy (Hijama): A comprehensive review. Journal of Drug Delivery and Therapeutics. 2021 Aug 15;11(4-S):258-62. <https://doi.org/10.22270/jddt.v11i4-S.4969>
- 15) Gulati S. Importance of Wet Cupping in Sciatica Patients: A Literature Review. International Journal of Convergence in Healthcare. 2024 Mar 12;4(1):4-. <https://doi.org/10.55487/ny9spq50>
- 16) 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. <https://doi.org/10.33545/2616454X.2017.v1.i1a.6>
- 17) 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.
- 18) Wani KR, Bhat UA, Nabi A, Nayab M, Ansari AN. Efficacy of Wet Cupping In The Management Of Low Back Pain: A Case Series

- Study. European Journal of Pharmaceutical and Medical Research, 2024;11(5):609-612
- 19) 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. <https://doi.org/10.1016/j.ctim.2008.05.003> PMID:19114223
- 20) Sheeraz M, Ahmed Z, Baig MG, Quamari MA. Pragmatic approach towards the role of hijamat in irqunnasa (sciatica)-a review. *International Journal of Current Research and Review*. 2014 Jan 15;6(2):6.
- 21) 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. <https://doi.org/10.1016/j.jbmt.2015.11.009> PMID:26891653
- 22) 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.
- 23) 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. <https://doi.org/10.1177/2156587214524578> PMID:24647093
- 24) Nawaz A, Iqbal A, Ahmed A, Mushtaq A, Chishti MA, Ahmad I, Usmanghani K. Treatment of Sciatica by HIJAMA (Regimental Therapy-Cupping). *RADS Journal of Pharmacy and Pharmaceutical Sciences*. 2014 Apr 20;2(2):22-5.