



Research Article

Effect of Hijama (Wet Cupping Therapy) In Sciatica Pain Management

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[Received: 05/04/2020;

Accepted: 22/06/2020;

Published: 21/09/2020]

ABSTRACT:

In unani system of medicine Sciatica is described under the heading of *Irqunnisa*. As per unani classical text, it is caused mostly by *Insibab* (Pouring) of *Ghaleezkhilt* of *Dam* and *Balgham* (Thick sanguine and phlegm), occasionally by *Safra* (Yellow bile) and rarely *Sawda* (Black bile), on *Asab-e-Areeza* or *Asab-e-WarqiAzeem* (Sciatic nerve). It is characterized by moderate to severe pain arises from lower back and radiates to the leg or lower limb due to irritation of the sciatic nerve roots. Various treatment mentioned in classical text including massage, cupping, oral and local applications.

Present study was conducted in RRIUM, OPD situated in JJ Hospital Campus, Byculla Mumbai to evaluate the effect of *Hijama* (WCT) in Sciatica pain management. 20 known cases of sciatica willing to participate in the study were selected. Diagnosis were confirmed by detailed clinical examination, X-RAY LS Spin & MRI report showing lumbar spine osteoarthritis, disc compression or bulging of disc. *Hijama* (WCT) was performed on selected point as per criteria. At the end of the study there was significant reduction in the symptoms and signs of sciatica.

Key words: *Irqunnisa* (Sciatica), Hijama, Wet Cupping Therapy (WCT). Regional Research Institute of Unani Medicine (RRIUM).

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INTRODUCTION:

Sciatica is an overwhelming ailment in which affected person may experience pain and/or

paresthesia in the distribution of the sciatic nerve or an associated lumbosacral nerve root. It is a

largest nerve in the body, made up of the L4 through S2 nerve roots which combine at the pelvis to form the sciatic nerve.¹

In unani system of medicine Sciatica is described under the heading of *Irqunnisa* also called *ReenganBaao* or *Langdika Dard*^{2,3}. *Ibn Sina* given the detail description on sciatica in his famous book *Al Qanoon*. He explained that the pain of *Irqunnisa* arising from the hip joint and radiates through the back of the thigh up to the ankle joint. The descent of pain in the leg correlates with the duration of the disease. The affected thigh becomes thin. Patient feels comfort by pressing the leg and walking on the toes. He also emphasized that Sciatica pain often is worsened with flexion of the lumbar spine, twisting, bending, or coughing⁴.

The sciatic nerve provides direct motor function to the hamstrings, lower extremity adductors, and indirect motor function to the calf muscles, anterior lower leg muscles, and some intrinsic foot muscles. Also, indirectly through its terminal branches, the sciatic nerve provides sensation to the posterior and lateral lower leg as well as the plantar foot. It is an important distinction to know that most cases of sciatica result from an inflammatory condition leading to an irritation of the sciatic nerve. Conversely, direct compression of the nerve leads to more severe motor dysfunction which is often not seen, and if present, would warrant a more meticulous and expeditious workup⁵⁻⁷.

Most patients with acute sciatica have a favorable prognosis but about 20%-30% have persisting problems after one or two years. Confirm diagnosis is made by detailed history and physical examination while imaging is indicated only in patients with "red flag" conditions or in whom disc surgery is considered^{8,9}.

Patients with sciatica usually experience pain in the lumbar spine, and almost invariably the pain will be unilateral. A common characteristic is that pain may be radicular to the ipsilateral affected extremity. Often, patients may describe

pain or a burning sensation deep in the buttocks, and frequently they will describe paresthesia that accompanies the pain. Less commonly there is associated ipsilateral leg weakness. These patients may describe the affected leg feeling heavy. A straight-leg raise has variable sensitivity and specificity and may or may not be present depending on the underlying cause. The straight-leg test is a passive examination. The straight-leg test is performed by having the patient lay in a relaxed, supine position. The examiner then lifts the leg from the posterior aspect flexing at the hip joint and keeping the knee in full extension, or keeping the leg straight. Typically pain that is reproduced between 30 to 70 degrees of hip flexion and experienced primarily in the back is likely due to a lumbar disc herniation. Pain and parenthesis that are felt in the leg are likely due to lateralizing compression of a peripheral nerve. While not absolute, musculoskeletal causes of the pain will usually reproduce pain above 70 degrees of flexion and below 30 degrees of flexion¹⁰.

In conventional medicine the available treatment is, use of hot or cold packs for comfort and to decreased inflammation or oral NSAIDs, Opioid and non-opioid analgesics. The long term use of these medication causes many adverse effects on vitals. While surgical intervention and correction of any structural abnormalities such as disc herniation, epidural hematoma, epidural abscess or tumor are the last option for treating Sciatica cases.

Hence keeping this in consideration a pilot study was planned to evaluate the effect of WCT in Sciatic pain management at RRIUM, OPD situated I JJ Hospital Campus. The GOPD of RRIUM, Mumbai having a good flow of musculoskeletal disorders cases seeking Unani Medicine as a primary choice or as an adjuvant therapy. Hence those cases who are regularly taking Unani medicine (Oral & Local) as primary treatment since 3 months for sciatica pain but

there was no relief in their sign and symptoms were advised for *Hijama*.

MATERIAL & METHODS:

Total 20 known female cases of sciatica from 40 to 60 year of age group, presenting with complaint of lower back pain, tenderness, stiffness and SLR positive test and willing to participate in the study were selected. Diagnosis was confirmed by detailed clinical examination, X-ray of LS Spin or MRI report, which shows lumbar spine osteoarthritis or disc compression or Bulging of disc. Patients those having chronic illness like Diabetes Mellitus, Hypertension, Obese (BMI more than 30) or any other chronic illness which required long term treatment and those having worst sign and symptoms of sciatica were excluded from the study. All the details of procedure were well explained to each case. WCT was performed on selected point as per criteria at every fortnight for four visits. Details of visit was as follows:

First visit - 0 day (base line)

Second visit - 14th day (first follow up)

Third visit – 28th day (second follow up)

Fourth visit – 42th day (End of the study)

Pre & Post Instructions for WCT procedure:

Included cases were instructed to succumbed the following instructions prior to perform the WCT.

- Bring the reports of recent X-ray and MRI for screening only (to enrolled the cases)
- Bring the reports of Hb%, BT CT and Blood Sugar Fasting for screening only (considerable within 3 days of testing).
- Do breakfast before one hour to the appointment
- Light or semisolid diet is preferable for one day
- No bath after Hijama (WCT)
- No heavy Diet after Hijama (WCT)
- Better to have bed rest for one day.
- Keep hydration better for one day.

- If any complication or adverse reaction happened during the procedure or after the procedure, kindly report it within two days.

Procedure of WCT:

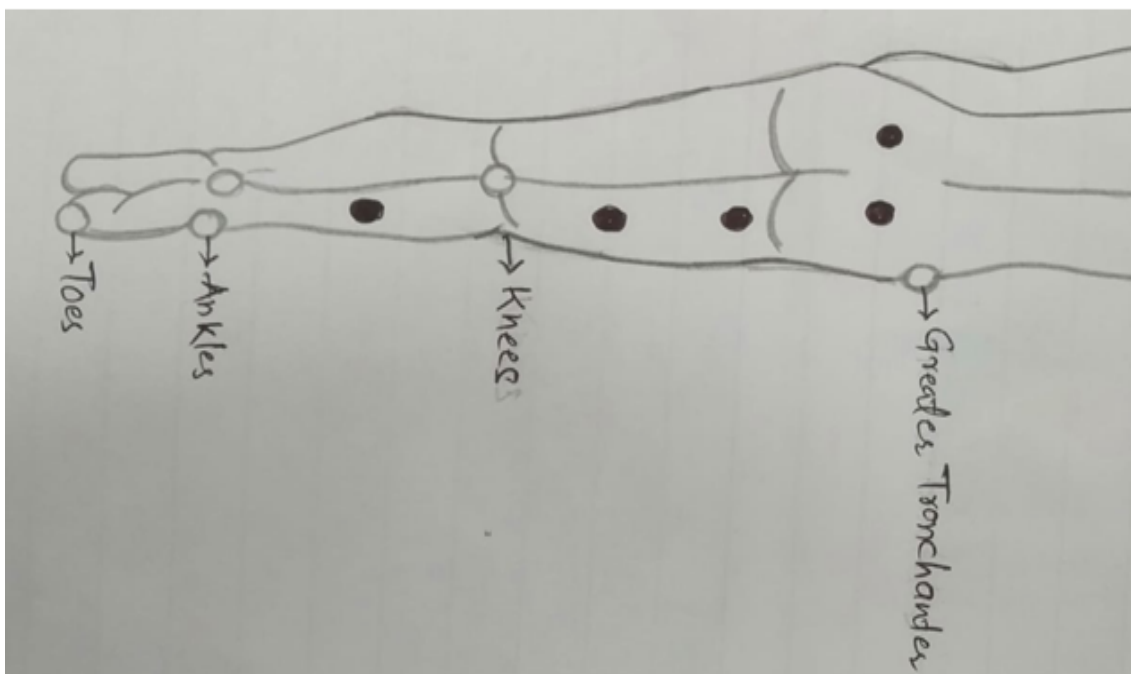
In present study wet cupping therapy (WCT) was performed on selected cases. The area from hip joint to lower limb was selected and total 5 large cups were applied in each sitting or visit. During the procedure the first suction by negative pressure was applied on targeted area followed by skin scarification to open the skin barrier and excrete out bloody mixture of fluids with soluble wastes and causative pathological substances (morbid matter). Second negative pressure suctioning completes the process of excretion of waste. The following procedure was followed for *Hijama*(WCT):

- **Ist Step:** patient was instructed to side lying position to projecting the target area (5 points from hip to heel). Targeted area was shaved & cleaned thoroughly with antiseptic solution.
- **IInd Step:** Mild suction is made by disposable cups (1mint)
- **IIIRD Step:** Maximum 12 -15 Small longitudinal, superficial incision is made with 11 no. surgical blade on the targeted area.
- **IVth Step:** Strong suction is created on the same point. The skin lift upward and the blood from the incision are allowed to flow freely till it coagulates or required blood is evacuated.
- **Vth Step:** Pressure is released after 3-4 minutes.
- **VIth Step:** Blood is collected and the incision is cleaned properly with antiseptic solution and dress with sterile bandage or gauze.

Following image is showing the Hijama cups location performed on enrolled cases of Sciatica. Total 5 disposable cups of large size (6 Number) was placed at targeted area (black dots)

at every visit. Sterile 11 no. surgical blade, sterile gauze, cotton and gloves, betadine solution,

kidney tray and mask & gown was used every visit as an aseptic precaution.



Parameters of the Study

1. Straight leg raising test
2. Radiating pain in affected limb
3. Numbness in the affected limb
4. Pain in lower back
5. Tenderness in lower back

All 5 parameters were given 0-3 score as per the severity and analyzed before and after completion of treatment.

Symptoms grading	SLR Test grading
0 for absent/normal	0 (Normal) score for leg raising over 90°
1 for Mild	0.5 for 71-90° (Sub normal)
2 for Moderate	1 for 51-70° (Mild)
3 for severe	2 for 31-50° (Moderate)
	3 score for leg raising upto 30° (Severe).

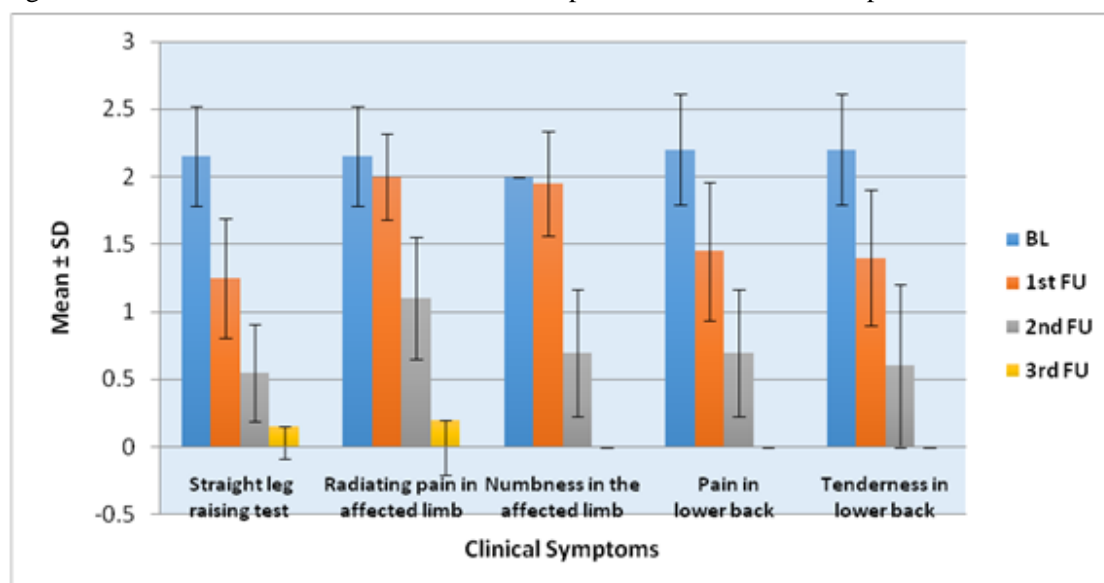
RESULTS & INTERPRETATION:

In Demographic data, it was observed that out of 20 cases, sciatica pain intensity was more severe in age group of 40 - 50 year while those who were between 50- 60 year of age had moderately affected. It was also observed that severely affected cases were overweight (BMI more than 25 & less than 29) and inactive in daily routine work or had a sedentary lifestyle and both the factors (obesity and sedentary lifestyle) are the major risk factor for sciatica

Table -1: Changes in Clinical parameters before & After WCT.

S. No.	Clinical parameters	Mean ± SD				Efficacy					
		Baseline	1 st FU	2 nd FU	3 rd FU	At 1 st FU		At 2 nd FU		At 3 rd FU	
						Efficacy (%)	P-value	Efficacy (%)	P-value	Efficacy (%)	P-value
1	Straight leg raising test	2.15 ± 0.37	1.25 ± 0.44	0.55 ± 0.36	0.15 ± 0.24	41.86	0.18	74.42	<0.001	93.02	<0.001
2	Radiating pain in affected limb	2.15 ± 0.37	2 ± 0.32	1.1 ± 0.45	0.2 ± 0.41	6.98	0.97	48.84	<0.05	90.70	<0.001
3	Numbness in the affected limb	2 ± 0	1.95 ± 0.39	0.7 ± 0.47	0 ± 0	2.50	0.99	65.00	<0.001	100.00	<0.001
4	Pain in lower back	2.2 ± 0.41	1.45 ± 0.51	0.7 ± 0.47	0 ± 0	34.09	0.13	68.18	<0.001	100.00	<0.001
5	Tenderness in lower back	2.2 ± 0.41	1.4 ± 0.5	0.6 ± 0.6	0 ± 0	36.36	0.18	72.73	<0.001	100.00	<0.001

Figure -1:BL = Base Line / 1st FU = 1st Follow up/ 2nd FU = 2nd Follow up/3rd FU = 3rd Follow up



Interpretation of Clinical Parameters:

Table-1 & Figure -1, describes the changes in baseline and follow up values of clinical subjective parameters. All parameter was statistically analyzed using Friedman post-hoc test. The result was expressed as the Mean ± SD. P<0.05 has been considered as statistically significant and p<0.01 and p<0.001 have been

considered as statistically highly significant.

This significant reduction in stiffness, tenderness and pain may be due to effect of Hijama therapy which relaxes the muscles, however exact mechanism or mode of action of Hijama therapy is not well defined till today but it may be due to base on the principles of evacuation (*Tanqiya*) and diversion (*Imaala*) of morbid humors.

Evacuation (*Tanqiya*) means the resolution and excretion of morbid humors (*Akhlat-e-Faasida*) and excess fluids from the body, thereby maintaining the homeostasis in the quality and quantity of four body humors, which is actually responsible for the maintenance of normal health. Diversion (*Imaala*) refers to the diversion of the morbid fluids from the site of affected organ to the site where from it is easily expelled from the body tissues. Based on this holistic approach, Unani physicians have been widely using this therapeutic regimen for treating musculo skeletal disorders. The effectiveness of this therapy may also be attributed to the anti-inflammatory actions (*Muhallil*), analgesic (*MusakkinAlam*), increase innate immunity, regulate the hormones, increase amount of cortisone in blood and protecting the body against harmful substances via creating specific changes in local tissue structures, local negative pressure in the cups which stretches the nerve and muscle causing an increase in blood flow along with increase capillary permeability at particular point. It is also suggested that putting cups on targeted area produces hyperaemia or haemostasis which results in a therapeutic effect of pain reduction.

CONCLUSION:

Significant reduction in severity of symptoms and signs of sciatica were noted after completion of the study. No local and systemic side effects such as local reaction, itching etc. were observed during the study. Thus it is concluded that the application of *Hijama* (WCT) is best option for sciatica pain management. However, this finding cannot be generalized to all patients. Therefore, further confirmatory, comparative, randomized clinical trials in a larger sample size for Sciatica are needed.

Scope & Limitation of Study:

This study has several limitations. It is a single arm pilot study included female

gender only and there was no compare group to evaluate the efficacy of Hijama as well as oral and local application. However, further interesting research based on this study may involve confirmation of whether Hijama has long-term effects and determination of which subgroup would benefit more from Hijama therapy. The subgroup can be defined based on the specific method of Hijama, such as cupping type, location, number of cups and frequency of treatments or by participant characteristics such as sex, age, risk factors, and cause.

ACKNOWLEDGEMENT:

The authors gratefully acknowledge Prof. Dr. Asim Ali Khan, the Director General CCRUM and Dr. Haseeb Alam, Incharge, RRIUM, Mumbai to provide the basic facilities, logistic support and infrastructure to conduct this study.

Conflict of interest: none

Funding: Nil

REFERENCE:

1. Flug JA, Burge A, Melisaratos D, Miller TT, Carrino JA. Post-operative extra-spinal etiologies of sciatic nerve impingement. *Skeletal Radiol.* 2018 Jul;47(7):913-921.
2. Nafees Burhanuddin, (1934). *Kulliyat-e-Nafeesi Mukammal*, Translated by Hakim Kabeeruddin, Idara Matbuat-e-Sulemanee, Lahore, pp.425-426,488.
3. Majoosi, A.B.A., (1889b). *Kamil-us-Sana*, Part II, Translated by Ghulam Husnain Kantoori, Munshi Nawal Kishore, Lucknow, pp. 326,675.
4. Ibn Sina, (1971). *Kulliyat-e-Qanoon*, Hafiz Rizwam Ahmed, Dar-ut-Talifat, Karachi, pp.349-540.

5. Lagerbäck T, Fritzell P, *et al.* Effectiveness of surgery for sciatica with disc herniation is not substantially affected by differences in surgical incidences among three countries: results from the Danish, Swedish and Norwegian spine registries. *Eur Spine J.* 2019 Nov;28(11):2562-2571.
6. Alrwaily M, Almutiri M, Schneider M. Assessment of variability in traction interventions for patients with low back pain: a systematic review. *Chiropr Man Therap.* 2018;26:35..
7. Hong X, Shi R, Wang YT,*et al.* Lumbar disc herniation treated by microendoscopic discectomy: Prognostic predictors of long-term postoperative outcome. *Orthopade.* 2018 Dec;47(12):993-1002.
8. Koes, B.W. *et al.*, (2007). Diagnosis and treatment of sciatica, *BMJ*, 23 June 2007, Vol. 334, pp.1313-1317.
9. Munro, J.F. and Campbell, I.W., (2000). *McLeod's Clinical Examination*, Churchill Livingstone,Edinburg,London,p.220.
10. Kasper *et al.*, (2005). *Harrison's Principles of Internal Medicine*, McGraw Hill MedicalPublishingDivision,NewDelhi,pp.1975,2036-2038,2040,2042-2044.