

## Cervical Spondylosis: Effect of Traditional Cupping Therapy (Hijama) in Reducing Pain and Activity limitation

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### Abstract

**Background:** Hijama is a cure for every disease if performed at the correct time. Cupping (hijama) is the best remedy recommended and used by Messenger (Sallallaahu Alayhi Wasallam). The Messenger (Sallallaahu Alayhi Wasallam) said, "Indeed the best of remedies you have is cupping (hijama)" [Saheeh al-Bukhaaree (5371)]. **Aim:** the aim of the present study was to investigate effect of traditional cupping therapy (hijama) in reducing pain and activity limitation. **Method:** The study design used was a two-group randomized controlled trial design. The current study conducted on 60 patients in the physiotherapy department. Patients were randomized to two groups, experimental and control. Each group included 30 patients, and the experimental group received cupping treatment in addition to routine care. Patients in the control group received routine care only. **Tools:** 3 formats were used to collect data pertinent to the study: ( a ) Sociodemographic and medical data sheet: (b)Comparative Pain Scale and (c ) The Patient-Specific Functional Scale. **Results:** As noticed from the current study, no significant statistical differences were seen between the study and control group. it was shown that study group subjects had more mean pain duration than the control group ones. It was shown that, a general improvement in pain levels and mean scores among both group subjects with a higher tendency of study group subjects to have a higher improvement than control group ones as (63.3%) of the study group subjects showed discomforting minor pain only after the 2nd., session compared to (43.3%) of the control group ones who had tolerable minor pain. Also, highly positive correlations between Activity restriction score, pain scores, and age were found with p-values <0.01. In conclusion, bloodletting cupping combined with conventional medicinal therapy has several advantages. It exerts marked improvement on the clinical condition of patients especially pain, and activity restriction. **Recommendations:** the study recommends the use of BLC [blood-letting cupping] therapy together with conventional therapy in patients suffering from cervical spondylosis.

**Key Words:** Cervical spondylosis, Hijama, Traditional cupping Therapy.

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### I. Introduction

Spondylosis is a term referring to degenerative osteoarthritis of the joints between the centra of the spinal vertebrae and/or neural foraminae. In this condition the facet joints are not involved. If severe, it may cause pressure on nerve roots with subsequent sensory and/or motor disturbances, such as pain, paresthesia, or muscle weakness in the limbs. This results in the vertebrae rubbing together and exerting pressure on the nerves. As the condition progresses, the bones may move out of their natural positions, causing pain and disability<sup>1</sup>.

Spondylosis progresses with age and often develops as a cause of repetitive strain injury caused due to lifestyle without ergonomic care, e.g., while working in front of computers, driving, traveling etc. Chronic cervical degeneration is the most common cause of progressive spinal cord and nerve root compression.

Treatment is usually conservative in nature; the most used treatments are nonsteroidal anti-inflammatory drugs (NSAIDs), physical modalities, and lifestyle modifications. Surgery is occasionally performed. Surgery is advocated for cervical radiculopathy in patients who have intractable pain, progressive symptoms, or weakness that fails to improve with conservative therapy. Many of the treatment modalities for cervical spondylosis have not been subjected to rigorous, controlled trials<sup>2</sup>.

Neck pain is a common musculoskeletal disorder characterized by periods of remissions and exacerbations. It is associated with significant disability in the general population. The disorders can result in substantial medical consumption, absenteeism from work and disability. Common treatment consists of drugs, massage, physiotherapy, exercise, and patient education. Systematic reviews showed unclear evidence for most of this treatment and the validity of many guidelines for the treatment of neck pain is still unclear<sup>3</sup>.

Cupping Therapy is a therapeutic treatment practiced for thousands of years. It spread to many nations around the world over time including Europe, USA, Africa, Russia, Middle East, Central, South East and South Asia. The first documented record of its practice were found in the 19th century; the "Ebers Papyrus" originated from Egypt. This medical text is thought to have been written in 1550 BC. The Chinese have predominantly also practiced Cupping Therapy for about 5000 years. They developed it in the field of acupuncture<sup>4</sup>.

Cupping (hijama) practice has been firmly established by the Sunnah and encouraged by the angels. Practising hijama brings about not only good health, but also reward from Allah. As it is based on religion and faith so, Muslims practice Hijama, based on what was ordained by Allah SWT (God) and practiced by Muhammad (PBUH). The word "hijama" is derived from "hajm" which means "sucking.", cupping is the process of applying cups to various points on the body by removing the air inside the cups to form a vacuum. Hijama is a treatment that stimulates specific points on the body by creating a vacuum in a suction cup placed at various points on the body leading to an increase in the flow of blood in this area. This is thought to draw out harmful excess blood from diseased organs nearby and so promote healing. It was the most recommended medical remedy by the Messenger (sallallahu alayhi Wasallam) who said, "Indeed the best of remedies that you have is cupping" (Bukhari)<sup>5</sup>.

Cupping (hijama) is a cure for every disease if performed in its correct time. The Messenger (Sallallahu alayhi Wasallam) said, "Indeed in cupping (hijama) there is a cure." [Saheeh Muslim (5706)]. The Messenger (Sallallahu alayhi Wasallam) said, "Whoever performs cupping (hijama) on the 17<sup>th</sup>, 19<sup>th</sup> or 21<sup>st</sup> day (of the Islamic, lunar month) then it is a cure for every disease." [Saheeh Sunan abi Dawud (3861)]<sup>6</sup>. and the best days of the week are Monday, Tuesday, and Thursday, so when these days and dates coincide therapists tend to be very booked up. If there are no sunnah days in the month, then the best days are the closest Monday, Tuesday or Thursday. If hijama is necessary, then it can be performed on any day of the week<sup>6</sup>.

Cupping therapy "Al hejama" is a very common non-conventional therapy in the Arabic societies that has been used in the treatment of a wide range of conditions, such as hypertension, rheumatic conditions, ranging from arthritis, sciatica and back pain, migraine, anxiety, and general physical and mental well-being<sup>7</sup>.

Men and women are allowed to have the treatments and it is recommended for all ages and all ailments. It is recommended that wet cupping be done rarely if a person is healthy; about twice a year during the seasons Spring to Autumn. The Patient should perform ghusl (ritual bathing) before a session. The Cupper and Patient should both be in Wudhu (ritual state of ablution) and recite Surah Fatiha ("The Opening"; 1st Passage of the Holy Quran) before cupping. The sunah points (back of neck and middle of shoulders) should be cupped first to gain optimum detoxification and relief. It should be performed on an empty stomach. A person who is fasting is allowed to have cupping done, but it is better not to for fear of becoming too weak<sup>7</sup>.

Dry cupping is the process of using a vacuum on the painful areas of the body in order to gather the blood in that area without incisions (small, light scratches made by a razor). But In "Wet Hijama" the skin is previously cut, so that blood would actually ooze into the cup where it could be removed<sup>8</sup>.

Hijama can be performed anywhere on the body, often at the site of an ache or pain in order to ease or alleviate it. A more conservative approach, warns against over use of cupping and suggests only that six optimal points on the body are all that is required to clean the entire cardiovascular system. The back of the head, two shoulders corresponding to the acupuncture heart position, the tail or small of the back, and the two inner ankles<sup>4</sup>.

The great Prophet Muhammad (peace and blessings be upon him) recommended the use of cupping in about 28 hadiths. Some of the prophetic narrations about Hijama include: "Healing is in three things: in the incision of the cupper, in drinking honey, and in cauterizing with fire, but I forbid my nation from cauterization with fire" (Sahih al-Bukhari). According to a hadith narrated by Anas Ibn Malik (may Allah be pleased with him) the Prophet (peace and blessings be upon him) says, "Cupping is the most helpful act for human beings to cure themselves." (Al-Bukhari and Muslim). The Prophet (peace and blessings be upon him) used cupping on his honorable head for migraine and on his honorable hip joint, back of the neck, lateral sides of the neck and shoulders.

Ibn `Abbas (may Allah be pleased with both) reported that the Prophet (peace and blessings be upon him) was treated with cupping, and he paid the cupper his fee.”<sup>9</sup>.

### **Significanc of the study**

Almighty Allah has sent the Qur'an as a book of guidance and a book of revelation, it is not originally a book of science, yet within its pages you would find numerous ayahs which have scientific bases. Allah has sent these ayahs as a proof of the Quran's Divine nature and as a challenge to the opposing people. Similarly Prophet Muhammad was not a scientist or a physician yet his words would carry a lot of scientific and medical signs that prove his truthfulness and prophethood. Muslims around the world should know about the Sunnah of this natural healing art. It is legal in UK, much of Europe, Africa, Asia, Middle East, South Asia and Far East<sup>4</sup>.

In the Middle East, cupping was advocated for by prominent physicians like Abu Bakr Al-Razi (AD 854-925), Ibn Sina (AD 980-1037), and Al-Zahrawi (AD 936-1036). In China, cupping was recorded as a medical treatment in the Mawangdui Silk texts (sealed in 168 BC). Cupping therapy was used in ancient Europe as well. In the first century AD, Celsus advised cupping therapy for extracting poison from bites and for abscesses. In the 2nd century AD, Aretaeus treated prolapse of the uterus, cholera, epilepsy, and ileus with wet cupping. Galen was an advocate for cupping therapy and detailed a variety of materials that could be used for cups like horns, glass, and brass<sup>10</sup>.

Ibn `Abbas said: "The Prophet was cupped on his head for an ailment he was suffering from while he was in a state of ihram, at a water place called Lahl Jamal." Ibn 'Abbas added: "Allah's prophet was cupped on his head for migraine headache while he was in a state of ihram." (Al-Bukhari). What is initially striking is the complete agreement of the sayings of Prophet Muhammad (peace and blessings be upon him) with modern scientific data and yet it is unthinkable that a man from Muhammad's time could have been the author of them. Almighty Allah says, (And thou (O Muhammad) wast not a reader of any scripture before it, nor didst thou write it with thy right hand, for then might those have doubted, who follow falsehood. But it is clear revelations in the hearts of those who have been given knowledge, and none deny Our revelations save wrong-doers.) (Al-`Ankabut 29: 48,49).

### **The aim of the study**

The aim of the present study was to investigate effect of traditional cupping therapy (hijama) in reducing pain and activity limitation.

## **II. Subjects & Methods**

### **Study design**

The study design used was a two-group randomized controlled trial design.

### **Setting**

The current study was conducted in Egypt at physiotherapy department in Quwesna hospital.

### **Sampling**

The study sample included 60 Patients under the supervision of the chief physician through june to sebtember 2022. Patients were randomized to two groups, experimental and control. Each group included 30 patients, the experimental group received cupping treatment in addition to routine care. Patients in the control group received routine care only, which consisted of a combination of medication and physician-recommended exercises.

**Inclusion criteria included :** (a) neck pain persisting for 4 weeks or more ; (b) age 17–68 years ; and (c) current episode of neck pain having at least a 4-week duration.

**Exclusion criteria** included possible spinal pathology (e.g., carcinoma), severe or progressive motor weakness or central disc prolapse, previous back surgery, bleeding disorders (e.g., hemophilia), and current treatment with cupping. All protocols were approved by the administrator of the hospital and the chief physician of physiotherapy department.

### **Tools**

Data were collected using three tools :

**(a) Sociodemographic and medical data sheet:** covered the following, age, gender, level of education, socioeconomic status, diagnosis, duration of pain.

**(b) Comparative Pain Scale :** which was developed by Harich (2002)<sup>11</sup>, it is a neumerical scale from 0 to 10 . 0 score means No pain where, 10 scores means Unimaginable or Unspeakable.

Use of it gives pain ratings that can more reliably be compared, both from patient to patient, and from day to day on the same patient. It is objective and repeatable because it compares your pain to a known level of pain or behavioral symptoms.

**(c) The Patient-Specific Functional Scale :** which was developed by (Stratford, Gill, Westaway & Binkley (1995)<sup>12</sup> it is a numerical scale from 0 to 10. This useful questionnaire can be used to quantify activity limitation and measure functional outcome for patients with any orthopaedic condition.

0 score means Unable to perform activity.

10 scores means Able to perform activity at the same level as before injury or problem. Patients should be Asked to perform an activity related to their painful area (for example, deep breath and cough for thoracic injury or move affected leg for lower limb pain).

Observe patient during the chosen activity and score A, B or C.

A - No limitation meaning the patient's activity is unrestricted by pain.

B - Mild limitation means the patient's activity is mild to moderately restricted by pain.

C - Severe limitation means the patient ability to perform the activity is severely limited by pain.

### **Validity and reliability**

Face and content validity of the tools for clarity, comprehensiveness, appropriateness, and relevance by a board of five experts' professors in medical surgical and community health nursing at Monufyia University with more than ten years of experience in the field were assessed; the board ascertained the face and content validity of the tools after modifications. Reliability was assessed through Cronbach's alpha reliability test  $\alpha = 85\%$ . The tools' reliability was estimated by using the Pearson correlation coefficient test to compare variables. The Pearson correlation coefficient for the variables ranged between ( $P. < 0.5$ ) and ( $P. < 0.001$ ), which indicated a highly significant positive correlation between variables of the subjects.

### **Pilot Study**

A pilot study was carried out before starting data collection on 10% of the sample (6 patients), to evaluate the tentative developed tools for clarity and applicability, as well to estimate the time needed for data collection. (Tools were tested for content validity).

### **The cupping technique**

For ethical reasons, patients randomly assigned to the cupping treatment were offered the opportunity to refuse consent to the research and offer usual treatment only. Experimental group divided into 3 sub groups: (10 patients for each), cupping (hijama) performed on the 17th, 19th or 21st day (of the Islamic, lunar month) each day 10 patients were cupped, before applying the technique, the patients instructed to perform ghusl (ritual bathing) before a session. To come the session on an empty stomach. The researcher and Patient should both be in Wudhu (ritual state of ablution) and recite Surah Fatiha ("The Opening"; 1st Passage of the Holy Quran). then, Vacuum plastic cups with vessels were applied as recommended on The sunah points (back of neck and middle of shoulders). cupping treatment procedure lasted about 20 min and was conducted in five steps:

Primary sucking: The cup is placed on the selected site and the air inside the cup rarified via manual (1) suction. The cup clings to the skin and is left for a period of 3–5 min.

Scarification: Superficial incisions are made on the skin using the "multiple superficial incisions" technique (2) with sterile surgical blades size 15–21 for incision. In the "multiple superficial incisions" technique, As a result, after healing of the wound, the scar lesion does not remain.

Bloodletting: The cup is placed back on the skin, using the same manner described above, until it is filled (3) with blood from the capillary vessels. The volume of blood varied across patients. treatment effects are unrelated to the volume of blood. In fact, the duration is more important than the blood volume released. The cup is removed., then Dressing done.

### **Measures**

Basic demographic and medical information was collected then pain and function assessment at first visit for each patient individually, for the two groups (first assessment) using the tools discussed above (baseline data). The second assessment for the two groups were done after finishing the first session done for experimental group, the third assessment were done for the two groups after finishing the second session done for experimental group.

## **III. Data analysis**

Upon completion of data collection each sheet was manually scored. The background data sheet was coded and prepared for calculations. Calculations were made utilizing SPSS program version 11. The following tests for significance were used : Means and Standard deviation as well as percentage, frequency, Chi-Square tests, correlation coefficient, F- ratio and t-test for comparison of means. Probability level of 0.05 was adopted as the level of significance for testing hypothesis.

#### IV. Results

**Table no 1:** Sociodemographic Characteristics of Both Study and Control Groups in Percentage Distribution

Variable	Study group(N=30)		Control group(N=30)		x-p values
	No	%	No	%	
<b>Sex:</b>					X <sup>2</sup> =.80 n.s
Male	12	40	9	30	
Female	18	60	21	70	
<b>Age:</b>					X <sup>2</sup> = 1.14 n.s
30-	7	23.3	4	13.3	
40-	9	30.0	8	26.7	
50-	14	46.7	18	60.0	
x- ±SD	49.36	8.75±	49.83	± 10.50	
<b>Occupation:</b>					X <sup>2</sup> = .43 n.s
Housewife	9	30.0	12	40.0	
Employée	11	36.7	10	33.3	
Drivers	10	33.3	8	26.7	
<b>Education:</b>					X <sup>2</sup> = 1.35 n.s
Illiterate	5	16.7	6	20.0	
Read and write	6	20.0	11	36.7	
Secondary	9	30.0	7	23.3	
University	10	33.3	6	20.0	
<b>Marital status:</b>					X <sup>2</sup> =.60 n.s
Single	8	26.7	6	20.0	
Married	22	73.3	24	80.0	

n.s = not significant

It is clear from table (1) that more than half of study group subjects, and more than two thirds of control groups subjects were females (60%, 70%), more than two thirds of both groups were married (73.3%, 80%) respectively. As regard to age, it was found that more than one third of study group subjects and more than half of control groups subjects aged between 50- 60 years (46.7%,60%) with mean age of (49.36 ±8.75) , (49.83 ± 10.50) respectively. Also, about one third of study group subjects were employées and had university degrees (36.7%, 33.3), however, more than one third of control groups subjects were housewife and only can read and write (40%, 36.7%). No significant statistical differences were seen between the two groups in relation to the above-mentioned demographic variables.

**Table no 2 :** Differences between Study and Control Group Subjects in Relation to duration of pain pre intervention.

Variable	Study group N=30		Control group N=30		t-p values
	X	±SD	X	±SD	
duration	5.733	.6914	4.900	.8847	4.06***

X= Mean                      ±SD= Std. Deviation

As regarding to duration of pain, it was showed that study group subjects had more mean of pain duration than the control group ones with a mean of (5.733 ±.6914) , (4.900 ± .8847) respectively. There was highly statistical difference between both study and control group with p value p= 0.001

**Table no 3 :** Differences in Levels and mean Scores of Comparative Pain Scale Between Study and Control Groups.

Group	pain Scale	Study group N=30						Control group N=30						x2 - p values			
		First assessment		After 1st., session		After 2 <sup>nd</sup> ., session		First assessment		After 1st., session		After 2 <sup>nd</sup> ., session		Pre	mid	post	
		N	%	N	%	N	%	N	%	N	%	N	%				
No pain	(0) No pain	0	0	0	0	0	0	0	0	0	0	0	0	0	x2 =	x2 =	x2 =
Minor	(1) Very Mild	0	0	0	0	0	0	0	0	0	0	0	0	.70	4.41**	5.95**	
	(2)	0	0			19	63.	0	0	0	0	0	0	N.	*	*	

	Discomforting (3) Tolerable	0	0	21	70	11	36.7	0	0	5	16.7	13	43.3	S
Moderate	(4) Distressing	0	0	9	30	0	0	0	0	18	60.0	17	56.7	
	(5) Very Distressing	0	0	0	0	0	0	0	0	7	23.3	0	0	
	(6) Intense	0	0	0	0	0	0	0	0	0	0	0	0	
Severe	(7) Very Intense	5	16.7	0	0	0	0	5	16.7	0	0	0	0	
	(8) Utterly Horrible	7	23.3	0	0	0	0	6	20.0	0	0	0	0	
	(9) Excruciating Unbearable	6	20.0	0	0	0	0	5	16.7	0	0	0	0	
	(10) Unimaginable Unspeakeable	12	40.0	0	0	0	0	14	46.6	0	0	0	0	
X ±SD		8.83 ±1.147		3.30 ±3.30		2.36 ±.49		8.93 ±1.17		4.06 ±.63		3.56 ±.50		
F - p values		F =619.99***						F =388.15***						

\* = Indicate statistical significance at 0.05      \*\*\* = Indicate statistical significance at 0.001      N.S = Not significant

This table shows a general improvement in pain levels and mean scores among both group subjects with a higher tendency of study group subjects to have a higher improvement than control group ones as (63.3%) of the study group subjects showed discomforting minor pain only after the 2<sup>nd</sup>. session compared to (43.3%) of the control group ones who had tolerable minor pain, with  $\chi^2$  -p values of 5.95 , p < .01. Moreover, there were high statistical significant differences all through the study period of the study group subjects were found with the following F- p values of F = 619.99 p<.001

**Table no 4 :** Differences in Levels and mean Scores of The Patient-Specific Functional Scale Between Study and Control Groups.

Group pain Scale	Study group N=30						Control group N=30						t/x2- p values		
	First assessment		After 1st., session		After 2 <sup>nd</sup> . session		First assessment		After 1st., session		After 2 <sup>nd</sup> . session		First assessment	After 1st., session	After 2 <sup>nd</sup> . session
	No	%	No	%	No	%	No	%	No	%	No	%			
A No limitation	0	0	6	20	26	86.7	0	0	5	16.7	x2 = .35N.S				
B Mild limitation	5	16.7	24	80	4	13.3	4	13.3	19	63.3	18	60.0	t = 4.15***		
C Severe limitation	25	83.3	0	0	0	0	26	86.7	11	26.7	7	23.3	t = 7.84***		
X ±SD	7.36±.80		4.80±.88		2.26±.78		7.166±.98		5.96±.85		5.13±.77		t = 14.22***		
F - p values	F =284.60***						F =40.94***								

\* = Indicate statistical significance at 0.05      \*\*\* = Indicate statistical significance at 0.001      N.S = Not significant

A- No limitation meaning the patient’s activity is unrestricted by pain

B - Mild limitation means the patient’s activity is mild to moderately restricted by pain

C - Severe limitation means the patient ability to perform the activity is severely limited by pain.

From table (4) it was noticed obviously that, a general improvement in levels and mean Scores of the patient-specific functional scale was found among both groups’ subjects with a higher tendency of study group subjects to have a higher improvement than control group ones as (86.7%) of the study group subjects showed unrestricted activity by pain. After the 2<sup>nd</sup>. session compared to only(16.7%) of the control group ones. , with  $\chi^2$  -p values of 5.40, p < .01. Moreover, there were high statistically significant differences all through the study period of the study group subjects were found with the following F- p values of F = 284.60, p<.001

**Table no 5:** Correlation Matrix for Age, pain scores, activity restriction scores, Duration of pain.

Variables	age	Pain scores	Activity restriction scores	Duration of pain
Age	1.00			
Pain	.55**	1.00		
Activity	.86**	.72**	1.00	
Duration of pain	.11	.10	.11	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table ( 5 ) cleared that age was positively correlated with pain scores, activity restriction scores with p-values <0.01 . Also, highly positive correlations between activity restriction score, pain scores and age were found with p-values <0.01 .

## V. Discussion

An increasing number of systematic reviews of cupping therapies were published in recent years. The majority concluded that there is a favourable effect of wet cupping in pain conditions<sup>13</sup>. In china, Hijama therapy has been used widely for thousands of years, for treating different diseases, it is a safe, and inexpensive technique. It is used by practitioners of Chinese medicine to treat colds, lung infections, and problems in the internal organs. Moreover, it is utilized to alleviate back spasms and pain in the muscles and joints. Combining acupuncture and cupping therapies are a better therapy for cervical spondylosis, with a shorter treatment course and low relapse rate, according to a recent study that looked at the clinical effectiveness of treating the condition<sup>14</sup>.

Many Arabic institutions have been concentrating on the advantages of Islamic remedies, according to El Hasbani (2021)<sup>15</sup>, who claimed that the mode of action of the hijama is still under examination, realistically speaking -on the therapeutic level of Hijama - it has proven to be a great success in several domains such as: Hijama for pain control, migraines and headaches, rheumatic conditions. Moreover, a study conducted by Almoallim ( 2014 )<sup>16</sup>, was done to assess the effectiveness of blood-letting cupping (BLC) therapy as a supplemental treatment for rheumatoid arthritis (RA) and to look into how it affects soluble interleukin-2 receptors and natural killer cells (NK) (SIL-2R).

Also, about one third of study group subjects were employées and had university degrees, however, more than one third of control groups subjects were housewife and only can read and write. Moreover, As regarding to duration of pain, it was found that study group subjects had more mean of pain duration than the control group ones, these findings supported by the literature which stated that, spondylosis progresses with age and often develops as a cause of repetitive strain injury caused due to lifestyle without ergonomic care, e.g., while working in front of computers, driving, traveling<sup>17</sup>.

Also, a general improvement in pain levels and mean scores was found among both group subjects with a higher tendency of study group subjects to have a higher improvement than control group ones After the 2nd., session. Moreover, there were high statistical significant differences all through the study period of the study group subjects were found.

In Egypt, various studies investigated the efficacy of cupping therapy in treating chronic headache and chronic back pain supported these findings, for example, Hssanien, Ahmed, Al Emadi, Hammoudeh, (2011)<sup>18</sup> concluded in their study that the effect of cupping therapy (Al hejjamah) for chronic headache and back pain has been studied and the results revealed significant improvements in participants as a result of cupping therapy. Further studies with larger samples, for longer duration of follow up and use of a comparison group are recommended.

Another study<sup>19</sup> concluded that, Blood Letting Cupping combined with conventional therapy, exerts marked improvement on the clinical condition of the patient. Especially in the analogue of pain scale, reduces the laboratory markers of disease activity and it modulates the immune cellular conditions, particularly of innate immune response NK cell % and adaptive cellular immune response SIL-2R. In Germany<sup>20</sup>, a study done to investigate the effectiveness of “wet cupping” of a defined connective tissue area (over the Musculus trapezius) in patients suffering from brachialgia paresthetica nocturna. Thier study revealed that Pre- to post-treatment change of brachialgia severeness, calculated from 1-week averages of the means of three subscales (pain, tingling and numbness), each assessed on a -10 numeric analogue scale. Treatment effects can be found in the active (-2.3+/-1.9 score points) but not in the control group (+.5+/-1. points; p=.002; triangle test). The results are supported by secondary outcome criteria, adverse events were not documented in any patient.

From the current study, it was noticed obviously that, a general improvement in levels and mean scores of the patient-specific functional scale was found among both groups subjects with a higher tendency of study group subjects to have a higher improvement than control group ones after the 2nd., session , with x2 -p values of 5.40, p < .01. Moreover, there were high statistical significant differences all through the study period of the study group subjects were found with the following F- p values of F = 284.60, p<.001.

a study done to investigate The effectiveness of wet-cupping for nonspecific low back pain supported the current study findings as the researcher found that, Wet-cupping care was associated with clinically significant improvement at 3-month follow-up<sup>21</sup>. The experimental group who received wet-cupping care had significantly lower levels of pain intensity ([95% confidence interval (CI) 1.72–2.60] mean difference = 2.17, p< 0.01), pain-related disability (95% CI = 11.18–18.82, means difference = 14.99, p< 0.01), and medication use (95% CI = 3.60–9.50, mean difference = 6.55, p< 0.01) than the control group. The differences in all three measures were maintained after controlling for age, gender, and duration of lower back pain in regression models (p< 0.01).

Lastly, the study cleared that age was positively correlated with pain scores, activity restriction scores with p-values <0.01. Also, highly positive correlations between activity restriction score, pain scores and age were found with p-values <0.01. These results supported by the literature as In Canada, Finland and the United States, more people are disabled from working as a result of back pain than from any other group of diseases<sup>22</sup>, Over 60% of Americans, 40% of the adult population in Britain, and 62% of adults in African countries, are reported to experience low back pain at some point in their lives, and between 10 and 30% of populations in these nations suffer from chronic low back pain at any point of time<sup>23,24,25</sup>.

## VI. Conclusion

Cupping (hijama) combined with conventional medicinal therapy has several advantages. It exerts marked improvement on the clinical condition of patients, especially comparative scale of pain, it significantly reduces the activity restriction.

## VII. Recommendations

Based on the results of the study, the following recommendations are suggested:

The use of traditional cupping therapy together with the conventional therapy in patients suffering from cervical spondylosis.

Expanded studies in Cupping (hijama) and its effect are also needed.

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