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Review on cupping therapy (al-hijama): A miraculous alternative system of medicine, which is an unbeatable cure for all ailments

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Abstract

Objective: Cupping therapy (al-hijama) is time and again used and repeatedly promoted for the symptomatic treatment of various diseases and ailments. As it is currently outdated, the main aim of this review is to make people aware of its importance and popularize it worldwide as it is an efficient cure for major diseases.

Method: Randomized clinical trials (RCTs) on cupping therapy (al-hijama) for a variety of ailments were incorporated. This review focused on theories and hypotheses that explain various mechanisms of cupping therapy and its treatment for diseases from a modern medicine perspective. Theories related to traditional systems of medicine such as Traditional Chinese Medicine and Unani Medicine was included in this review.

Results: Diseases for which cupping therapy (al-hijama) was generally functional were fibromyalgia, fibrositosis, cervical spondylosis, sciatica, gouty arthritis, skin related ailments, osteoarthritis, pain, hyperlipidemia, persistent low back pain, chronic non-specific neck pain, non-specific low back pain, acute and chronic pain management, headache in migraine, cellulitis, gynecological disorders, etc.

Conclusion: Several randomized clinical trials (RCTs) on cupping therapy (al-hijama) have been accomplished and published throughout the past decades. This review demonstrated that cupping therapy has a potential effect in the treatment of fibromyalgia, fibrositosis, cervical spondylosis, sciatica, gouty arthritis, skin related ailments, osteoarthritis, pain, hyperlipidemia, persistent low back pain, chronic non-specific neck pain, non-specific low back pain, acute and chronic pain management, headache in migraine, cellulitis, gynecological disorders, etc. and other particular conditions. Nevertheless, additional thoroughly designed trials on its efficiency for other conditions are necessary.

Keywords: Cupping therapy, al-hijama, alternative medicine

1. Introduction

The word 'Hijama' means 'drawing out' in Arabic. It is currently being acknowledged as an alternative medicine or alternative way of treating different diseases and bodily disorders, which also involves one of the most deadliest and incurable ailments. Practitioners of traditional Chinese medicine (TCM) believe that diseases are produced by stagnant or blocked Qi, the vital energy or life force, and that cupping is capable to unblock and correct imbalances in the flow of Qi, thereby restoring health. In East Asia, cupping is a popular alternative remedy for a variety of ailments. It is mainly prescribed as a management for chronic pain, but is also designated for a whole diversity of respiratory, gastroenterological, and gynecological disorders. Cupping is safe and sound, effortless and inexpensive technique used to ease the pain and discomfort arising from disorders of the internal organs, muscle spasms, joint pains, and in many other circumstances. Modern medical science also witnesses the diverse benefits of Hijama and even uplifts its practice in certain diseases. Hijama is an ancient blood-letting procedure that has been employed in many countries to cure certain diseases or bodily disorders. While the Chinese seems to have done a principal role in utilizing this bloodletting technique to cure certain diseases, the Arabs have embraced it as much-stressed Sunnah of the prophet Mohammed (PBUH). The Europeans were as well doing hijama to treat numerous diseases. Cupping therapy is a treatment of alternative medicine. Due to the useful employment of cups, it is called as cupping therapy. Hijama is alternative name of cupping therapy.

2. History**2.1 Historical Definitions of Cupping**

A Cyclopedic Medical Dictionary unveils that the application of a glass vessel to the skin, from which air can be exhausted by heat or special suction equipment, is acknowledged as cupping.

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2.2 Ancient Egyptians and cupping therapy

According to a theory ^[10], cupping therapy was practiced in Egypt more than 5500 years ago, and was represented in ancient hieroglyphics.

2.3 Chinese culture and cupping therapy

The most primitive revealed record of cupping in China was in an ancient book written on silk. This book was discovered in a very old tomb of the Han Dynasty in 1973.

2.4 Arabic medicine and cupping therapy

The practice of cupping therapy in Arabic medicine started around 3500 B.C.

2.5 Unani medicine and Cupping therapy

According to Unani medicine, *Hijama* is an Arabic word which has two diverse meanings. *Hijama* refers to the course of scalp hair removal, *Hijamat* or the application of cups, *Seenghi*.

2.6 Prophetic medicine and cupping therapy

Prophetic medicine is an expression given to the information achieved from the teachings, advice and sayings (hadiths) of the prophet Muhammad (570 C.E.), associated to health and the cure of diseases.

2.7. European and American culture and cupping therapy

Cupping therapy extends from ancient Egypt to the medical practices of many European countries and the Americans. In the UK, the practice of cupping therapy furthermore dates back hundreds of years.

2.8 Historical uses of cupping

Cupping therapy has been employed therapeutically around the world for thousands of years, dating back to the age of the ancient Egyptian civilization. Cupping therapy has been applied historically to treat many acute and chronic diseases, counting numerous painful conditions, nausea and vomiting, urinary tract infections, disabilities, respiratory ailments and rheumatic disorders.

2.9 Types of cupping therapy

Early organization of cupping therapy categorized it generally into dry and wet cupping ^[39]. Dry cupping drags the skin into the cup without scarifications, while in wet cupping the skin is cut so that blood is strained into the cup.

3. Mechanism of action based on various theories

3.1 Pain-gate theory (PGT)

This theory widely elucidates how the pain is spread from the point of its origin to the brain, and how it is developed in the brain which drives back the efferent, protective signal to the stimulated or injured region. It is reported that local injury of the skin and capillary vessels works as a nociceptive stimulus.

3.2 Diffuse noxious inhibitory controls (DNICs)

An additional theory related to pain reduction as a method of action of cupping therapy is Diffuse Noxious Inhibitory Controls. DNIC indicates inhibition of action in convergent or broad vibrant range-type nociceptive spinal neurons elicited by a second, spatially distant, noxious stimulus.

3.3 Reflex zone theory

In cupping therapy, when the contaminated organ propels a signal to the skin during the autonomic nerves, the skin reacts

by becoming gentle and painful with swelling. Skin receptors are triggered when cups are applied to the skin. The entire method will effect in the growth of the blood circulation and blood supply to the skin and the internal organs through the neural relations.

3.4 Release of nitric oxide theory

Nitric Oxide (NO) is indicating gas molecule that arbitrates vasodilatation and controls blood flow and volume. NO controls blood pressure, adds to the immune responses, manages neurotransmission and involves in cell differentiation and in many more physiological functions. Cupping therapy could cause liberation of NO from endothelial cells and, so, encourage certain beneficial biological changes.

3.5 Activation of immune system theory

From the point of view of body immunity and defense, practitioners begin to realize the action of cupping therapy through modifying immunoglobulin and hemoglobin, and its diverse immunological effects. Cupping decreases serum IgE and IL-2 levels and increases serum C3 levels which are found to be unusual in the immune system.

3.6 Blood detoxification theory

This theory concentrates on the deletion of toxic matters from the affected part where the cups are applied. According to the blood detoxification theory, there is a decline in the level of uric acid, HDL, LDL and the molecular configuration and function of hemoglobin (Hb) and other hematological alterations. This theory elucidates how the body is comforted of toxins and harmful materials through the underlying mechanism of cupping therapy.

3.7 Genetic modulation theory

In wet cupping therapy, skin cuts are executed leading to superficial wounds. Mechanical pressure, pain, anaerobic metabolism plus or minus superficial cuts could create physiological and mechanotransduction signals. These signals can trigger or hinder gene expression. The effect is activation of transcription factors by signaling cascades which lead to trigger or hinder transcription of responsive target genes. This mechanism of action may cause some of the local and systemic therapeutic effects of cupping therapy.

4. Procedure for hijama (Cupping therapy)

Hijama can be executed nearly any place on the body, often at the site of an ache or pain in order to ease or alleviate it.

- The patient must be instructed to abstain from food for about 3 to 4 hours before cupping therapy (al-hijama).
- The location is first shaved if necessary, to ensure a tight seal with the cup. The mouth of a cup (metal, glass, and plastic cups are generally used, although traditionally horns were used) is placed on the skin at the site chosen for hijama (Cupping therapy).
- Then a tight seal is created. The traditional method is to burn a small piece of paper or cotton inside the vessel, so that the mouth of the cup clings to the skin. Some practitioners now use a machine instead of the manual cups. Some practitioners strictly adhere to the prophetic method with the use of fire, both for sterility and the benefits or properties from the element of fire itself that may be present.

- The cup is left to cling to the skin for a few minutes, then it is lifted off and several very small incisions are made for the skin.
- He cup is then put back as it was before until the flow of blood subsides.
- After 15 to 20 minutes cups should be removed then clean the impure blood from the hijama sites.

- Apply the antiseptic lotion or cream in the hijama site and the patient should be advised to abstain food for 1 hour after performing the cupping.

5. Sunnah points of hijama

There are a total of 9 points of the body where prophet Muhammad (P.B.U.H) performed hijama (cupping therapy). These are the Sunnah points of hijama.

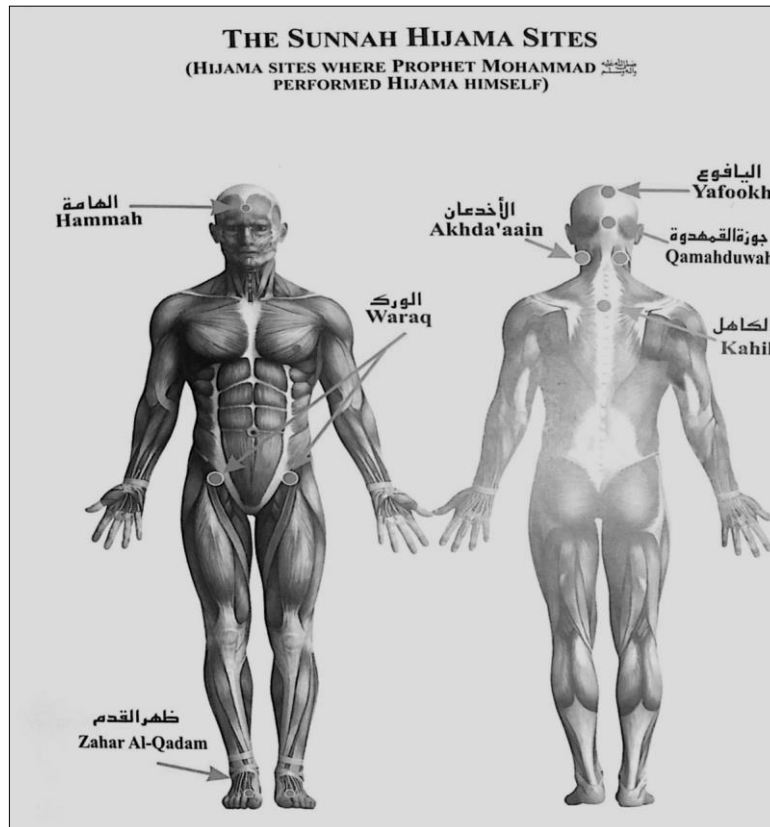


Fig 1: Sunnah points of hijamah (Cupping Therapy)

6. Benefits of hijama (Cupping Therapy)

The largely evident benefits of cupping are a relief of pain and a reduction and increased flexibility of rigid tendons and muscles. Cupping enhances the cleansing flow of lymph, while eliminating congested blood from the muscles. If cupping is applied to the joints, the blood flow to the joints is improved and there's an improved secretion of synovial fluid into the joint cavity. *Hijamah* is extremely valuable in constipation, diarrhoea, irritable bowel syndrome (IBS), headaches, depression, emotional problems, menstrual pain, suppressed or irregular menses, back pain, arthritis, traumatic injuries, lumbago, sciatica, asthma, bronchitis, piles, hydrocele, epistaxis, etc.

7. Contraindications

- Patients with bleeding disorders such as haemophilia or who are being treated with anticoagulants, cupping may not be the finest healing alternative.
- Cupping should not be executed on skin locations with active inflammation, burns, infection, and open wounds.
- Subsequent to energetic exercise for fear of dehydration and general weakness.
- Children below two years and in aged persons exceeding sixty years of the age since the humors are viscid in these age groups.

8. Safety Concerns

- The patient's blood pressure and pulse must be confirmed prior to the process.
- The practitioner should wear disposable latex gloves while carrying out the process.
- Apparatus must be comprehensively sterilized.
- The blades employed for wet cupping cuts should be disposable.
- The cuts in wet cupping should be superficial, concerning the epidermis only.
- An antiseptic cream must be applied to the cuts following the process.
- The patient should be inquired for any strange sensation or fever.
- The patient must be educated to sit and not to make abrupt movements while cupping.

9. Adverse Events

Cupping therapy is moderately secure. Cupping therapy has no side effects as long as performed appropriately. Cupping therapy adverse events (AEs) are once in a while reported but are not rare. Most AEs are gentle to reasonable in severity. Most AEs linked to cupping therapy are scar developments, followed by burns. Additional observed AEs are headache, pruritus, dizziness, tiredness, muscle tension, anemia, nausea, bullae formation, small hematoma or pain at cupping site,

abscess formation, skin infection, insomnia, hyperpigmentation, and vasovagal attack.

10. Indications

Cupping therapy has been utilized for health support, preventive, and therapeutic functions. Cupping therapy has accounted benefits in the treatment of lower back pain, neck and shoulder pain, headache and migraine, knee pain, facial paralysis, brachialgia, carpal tunnel syndrome, hypertension, diabetes mellitus, rheumatoid arthritis, and asthma. These syndromes can be grouped into localized diseases (neck pain, lower back pain, and knee pain) and systematic diseases (diabetes mellitus, hypertension, and rheumatoid arthritis). Cupping therapy sites are preferred according to the treated disorder. The back is the most general site of application, followed by the chest, abdomen, buttocks, and legs. Additional parts, such as the face, may as well be treated by cupping.

11. Treatment of various diseases using al-hijama (Cupping Therapy)

11.1 Fibromyalgia

Description: Fibromyalgia is a condition described by extensive musculoskeletal pain with related symptoms including stiffness, fatigue, sleep disturbance and functional impairment.

Methods: Electronic literature searches were performed to trace all RCTs of acupuncture for fibromyalgia.

Results: Five RCTs met the inclusion criterion. Three trials were of sensibly good methodological quality (Jadad score⁴³), reporting the randomization process, featuring dropouts and blinding patients, data analysts and coordinators. The highest Jadad score for any acupuncture trial would be 4 (not 5) as therapist blinding is not an option.

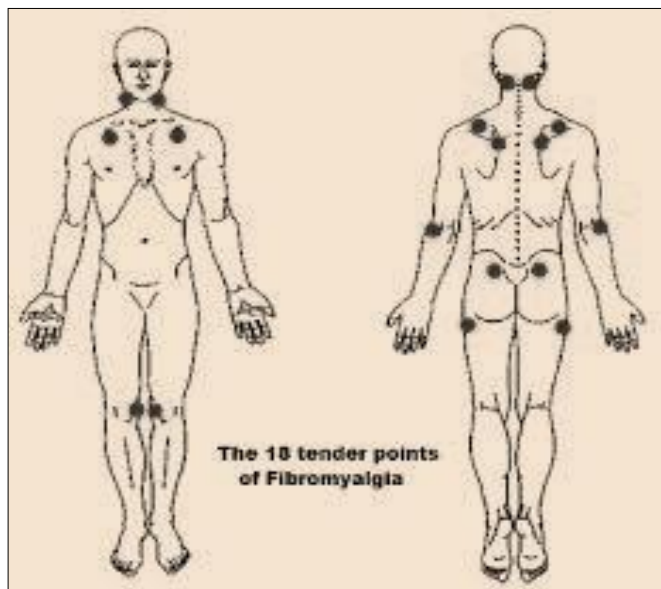


Fig 2: Cupping therapy points for fibromyalgia.

11.2 Cervical Spondylosis

Description: Cervical spondylosis is a generally and often encountered disorder. It tends to arise to more young people today and has turned out to be one of the major problems that cause danger to the human health.

Objective: To examine the clinical effectiveness of treating cervical spondylosis with combined acupuncture and cupping therapies.

Method: The patients in the treatment group (30 cases) were treated with combined acupuncture and cupping therapies; and the patients in the control group (30 cases) were treated with acupuncture therapy only.

Result: The χ^2 test demonstrated that there was significant difference ($P < 0.01$) between the two groups in recovery rate, total effective rate, relapse rate after six months, and average treatment span.

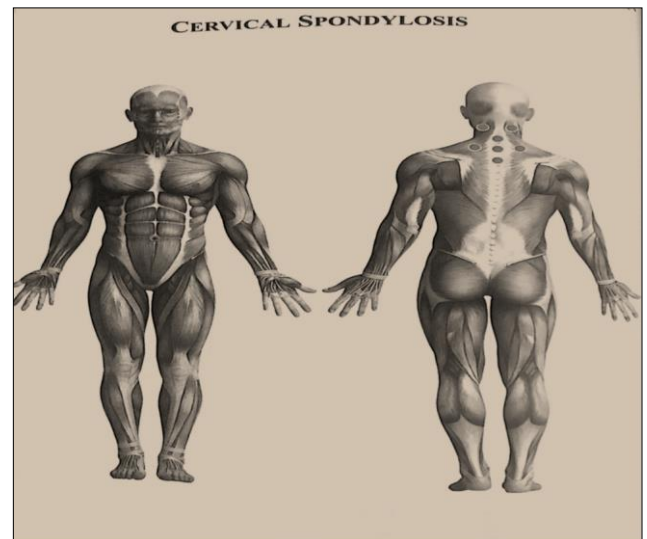


Fig 3: Cupping therapy points for cervical spondylosis

11.3 Pain

Description: Pain is mainly, the most universal reason for seeking therapeutic substitutes to conventional medicine and the more rigorous the pain, the more regular is the use of such therapies.

Objective: The purpose of this study was to review the evidence for or against the efficiency of cupping as a treatment alternative for pain.

Method: 14 databases were explored. Randomized clinical trials (RCTs) testing cupping in patients with pain of any basis were considered.

Results: 7 RCTs met the entire inclusion criterion. Two RCTs recommended significant pain reduction for cupping in low back pain contrasted with usual care ($P < .01$) and analgesia ($P < .001$). Another two RCTs too proved positive effects of cupping in cancer pain ($P < .05$) and trigeminal neuralgia ($P < .01$) compared with anticancer drugs and analgesics, correspondingly. Two RCTs accounted favorable effects of cupping on pain in brachialgia compared with usual care ($P = .03$) or heat pad ($P < .001$). The further RCT failed to explain superior effects of cupping on pain in herpes zoster compared with anti-viral medication ($P = .065$).

11.4 Hyperlipidemic patients (Effect on serum profile levels)

Description: Hyperlipidemia which is categorized into two subcategories; hypercholesterolemia which is accountable for

atherosclerosis and ischemic heart disease, and hypertriglyceridemia which responsible for pancreatitis.

Objective: The present study was conducted to assess the effect of cupping therapy on serum lipid profile concentration and associated to some trace elements (Cu, Zn, and Mn).

Results and Discussion

Patients with hyperlipidemic who were subjected to cupping show a major decrease ($p \leq 0.05$) in total cholesterol, LDL cholesterol and LDL/HDL ratio (5.04 ± 0.67 , 3.62 ± 0.69 , 3.44 ± 0.94) (5.06 ± 0.71 , 3.56 ± 0.85 , 3.38 ± 1.08) mmol/L in weeks 1 and 2 correspondingly by comparison before cupping (5.41 ± 0.68 , 4.03 ± 0.7 , 3.99 ± 1.08) mmol/L. While there were no significant modifications in serum HDL cholesterol and triglyceride (1.07 ± 0.12 , 1.71 ± 0.41) (1.08 ± 0.11 , 1.69 ± 0.32) mmol/L in weeks 1 and 2 correspondingly by comparison before Cupping (1.04 ± 0.11 , 1.69 ± 0.42) mmol/L.

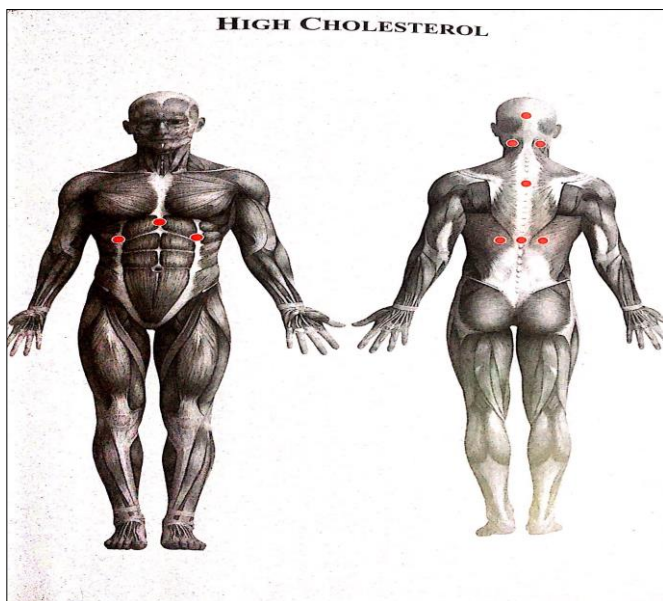


Fig 4: Cupping therapy points for hyperlipidameia

11.5 Persistent Non-Specific Low Back Pain

Description: Persistent non-specific low back pain (PNSLBP) is one of the most widespread pain disorders in primary care.

Methods: We enlisted 32 participants (21 in the wet-cupping group and 11 in the waiting-list group) who had been having PNSLBP for at least 3 months. Suitable participants were arbitrarily allocated to wet-cupping and waiting-list groups.

Results: The results demonstrated that the NRS score for pain decreased (-16.0 [95% CI: -24.4 to -7.7] in the wet-cupping group and -9.1 [-18.1 to -0.1] in the waiting-list group), but there was no statistical difference between the groups ($p = 0.52$). Nevertheless, the PPI scores showed major differences between the two groups (-1.2 [-1.6 to -0.8] for the wet-cupping group and -0.2 [-0.8 to 0.4] for the waiting-list group, $p < 0.01$). Also, less acetaminophen was used in the wet-cupping group throughout 4 weeks ($p = 0.09$). The ODQ score did not show major differences between the two groups (-5.60 [-8.90 to -2.30] in the wet-cupping group and -1.8 [-5.8 to 2.2] in the waiting-list group, $p = 0.14$). There was no description of adverse events due to wet-cupping.



Fig 5: Cupping therapy points for lower back pain

11.6 Osteoarthritis

Description: Osteoarthritis (OA) is a clinical condition of joint pain escorted by unstable degrees of functional limitation and reduced quality of life.

Methods: In a two-group, randomized controlled exploratory pilot study patients with a clinically and radiological confirmed knee OA (Kellgren-Lawrence Grading Scale: 2-4) and a pain intensity > 40 mm on a 100 mm visual analogue scale (VAS) were incorporated. 40 Patients were randomized to either 8 sessions of pulsatile dry cupping within 4 weeks or no interference (control).

Results: 21 patients were assigned to the cupping group (5 male; mean age $68 \pm SD 7.2$) and 19 to the control group (8 male; 69 ± 6.8). After 4 weeks the WOMAC global score enhanced considerably more in the cupping group with a mean of 27.7 (95% confidence interval 22.1; 33.3) contrasted to 42.2 (36.3; 48.1) in the control group ($p = 0.001$). After 12 weeks the WOMAC global score were still considerably different in favor for cupping (31.0 (24.9; 37.2) vs. 40.8 (34.4; 47.3) $p = 0.032$), however the WOMAC sub scores for pain and stiffness were not significant anymore. Significantly improved results in the cupping group were also observed for pain intensity on VAS and for the SF-36 Physical Component Scale compared to the control group after 4 and 12 weeks. No significant difference was observed for the SF-36 Mental Component Scale and the total number of ingested Paracetamol tablets between both groups (mean 9.1, SD ± 20.0 vs. 11.5 ± 15.9).

11.7 Chronic non-specific neck pain

Description: Neck pain, that is, pain linking the occipital bone, the thoracic vertebra, and the extensions to the shoulder joint, is a foremost health-related socioeconomic problem and the lifetime occurrence is about 48.5%.

Methods: 50 CNP patients were randomly allocated to treatment (TG, $n = 25$) or waiting list control group (WL, $n = 25$).

Results: Baseline characteristics were alike in the two groups. following cupping TG reported considerably less pain (PR: -17.9mm VAS , 95%CI -29.2 to -6.6 ; PM: -19.7 , 95%CI -32.2 to -7.2 ; PaDi: -1.5 points on NRS, 95%CI -2.5 to -0.4 ; all $P < 0.05$) and high quality of life than WL (SF-36, Physical Functioning: 7.5 , 95%CI 1.4 to 13.5 ; Bodily Pain: 14.9 , 95%CI 4.4 to 25.4 ; Physical Component Score: 5.0 , 95%CI 1.4 to 8.5 ; all $P < 0.05$). No significant result was found for NDI, MDT, or VDT, but TG showed much higher PPT at pain-areas than WL (in lg (kPa); pain-maximum: 0.088 , 95%CI 0.029 to 0.148 , pain-adjacent: 0.118 , 95%CI 0.038 to 0.199 ; both $P < 0.01$).

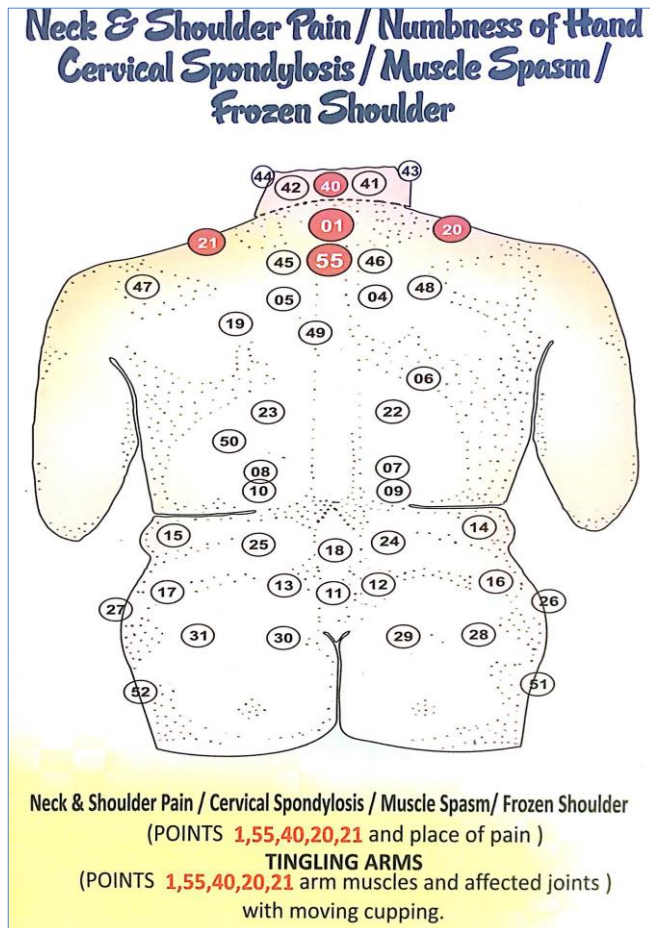


Fig 6: Cupping therapy points for chronic non-specific neck pain.

11.8 Non-specific low back pain

Description: Low back pain (LBP) is amongst the major unbearable, most costly, and most frequent complaints patients raise throughout routine physical examinations globally.

Objectives: To establish the efficiency of wet-cupping for treating constant nonspecific low back pain.

Results: The experimental group who received wet-cupping care had considerably 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 dissimilarities in all three measures were sustained after controlling for age, gender, and duration of lower back pain in regression models ($p < 0.01$).

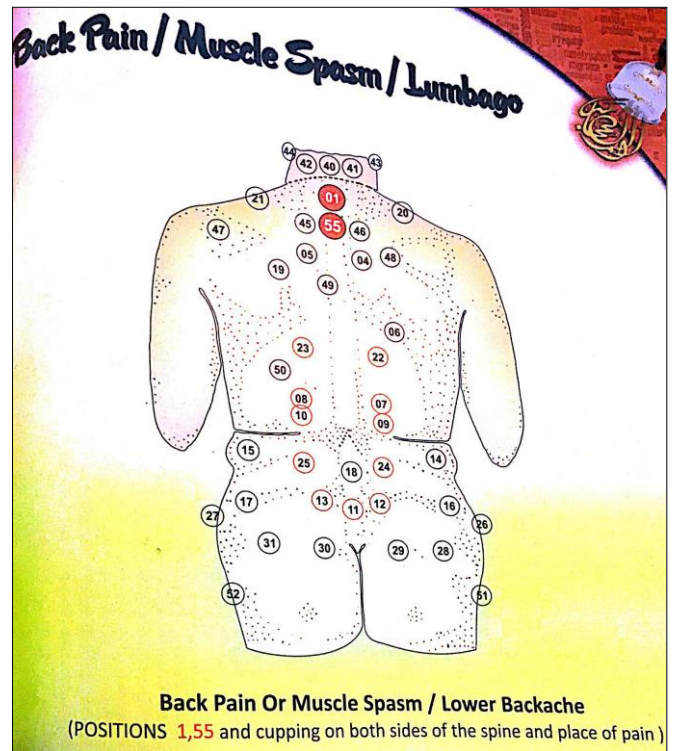


Fig 7: Cupping therapy points for non-specific low back pain.

11.9 Acute gouty arthritis

Description: Gout is a disorder of purine metabolism, primarily affecting middle aged to elderly men and postmenopausal women.

Methods: The 34 cases of acute gouty arthritis were treated by blood-letting cupping and herbal medicine.

Results: 21 cases were healed and 13 cases enhanced.

11.10 Acute and chronic pain management

Description: Pain can be categorized physiologically as skeletal, neuropathic, or inflammatory.

Methods: 13 databases and 4 trial registries were explored for randomized clinical trials.

Results: 16 trials with 921 participants were suitable and incorporated. 6 trials were evaluated as low risk of bias, another 6 trials were of uncertain risk of bias, and the remaining 4 trials were of high risk of bias.

11.11 Skin-related parameters

Background: This method can be used for several skin disorders, together with hair loss, hirsutism, acne, urticaria, psoriasis, and herpes zoster.

Methods: The metabolites of the wet cupping blood and venous blood were evaluated in 20 healthy individuals using a metabonomics method.

Results: by means of various modeling techniques, such as OSC-PLS, 17 differentiating metabolites were identified and acknowledged by the Human Metabolome Database and 16 differentiating pathways were accepted with Metaboanalyst among the 2 kinds of blood, including cholesterol, cortisone, aldosterone, primary bile acids, L-arginine, taurine, hypotaurine, D-glucose, and pyridoxamine.

11.12 Headache in migraine sufferers

Introduction: Migraine has a compilation of symptoms described by recurrent and severe headaches.

Materials & Methods: This study was conducted before and after clinical trial; the samples were 47 patients diagnosed with migraine headaches.

12. Results

The means for pain intensity at the start and the conclusion of the study were significantly decreased ($p=0.001$). In the majority of patients, pain was unbearable before wet-cupping (averagely 7.79%), yet, after the first (53.1%) and second (48.9%) sessions of wet-cupping, pain correspondingly lessened (3.15%). There was no statistically significant association between pain, educational level, marital status, or employment in the statistics from the beginning to the end of the study.

13. Conclusion

This review was done by analyzing authentic cupping therapy (Hijama) manuscripts, thesis reports and published scientific journals. The aim of this editorial column is to intensify this fascinating topic, slightly analyzed in the present literature, in order to elucidate the technique and deal with the confirmation of the effects of cupping therapy (Hijama) in various disorders. Reports of adverse events with cupping were sparse and those that were reported were mild. It is additionally worth assuming that about 70% diseases or disorders are promoted by the failure of blood to circulate efficiently in the body. This review also acknowledged some probable mechanisms of cupping therapy based on definite theories that enlighten its diverse effects. It is alleged to be advantageous in the treatment of a whole assortment of disorders, a few of which have been alluded earlier. Some times when conventional treatment fails to accomplish the preferred, objectives. In such condition, application of cupping therapy might be favorable. We advocate consideration of wet-cupping as an interesting option for treatment of different diseases and ailments because it is (a) effectual and efficient to administer, (b) involves only fundamental, low-cost knowledge and machinery, (c) recommends a reasonably priced medication, (d) has no considerable side-effects, and (e) connects the power of the body's innate capability to heal and correct itself. The cupping on the affected region could prevent and alleviate pain, also suspend the contaminated and toxic impurities and eliminate blood stasis, and encourage the blood circulation throughout the body. The cupping therapy (hijama) points in the above illustrated pictures has been assumed to have a cumulative effect on various diseases, which was observed by Indian, Arabian, and Chinese practitioners by trial and error method. Devoid of any adverse reactions, blood-letting cupping therapy (Hijama) is successful and efficient for treating several diseases such as fibromyalgia, fibrositosis, cervical spondylosis, sciatica, gouty arthritis, skin related ailments, osteoarthritis, pain, hyperlipidemia, persistent low back pain, chronic non-specific neck pain, non-specific low back pain, acute and chronic pain management, headache in migraine, cellulitis, gynecological disorders, etc., which is worthy to be recommended in clinical application.

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