A Critical Review of Publications related to Al-Hijama Therapy

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Short Communication

Evidence-based clinical practice emphasizes the use of information from well designed and conducted research in healthcare decision-making. It largely depends upon the outcomes from prospective randomized clinical trials in which the number of patients are sufficiently high to ensure that the results are robust. Such trials need to be adequately powered and to define from the beginning what magnitude of difference between treatments is being sought. The classical approach when assessing the value of new medications has been the use of blind assessments in which both patients and assessors do not know which drug or placebo they are receiving. The application of such an approach in Al-Hijama is either impractical or even unethical as it would require use of sham wet cupping. A recent review from Iran Bamfarahnak et al. [1] suggested Al-Hijama is currently prescribed for up to 120 diseases that are difficult to treat, including cutaneous (21.7%), musculoskeletal (15%), and central nervous system (13.3%) disorders. However, the number of such treatments subjected to rigorous assessment is relatively limited. In this review those studies which have dealt with pain will be considered first. Subsequently studies dealing with hypertension and cardiovascular risk factors will be assessed. In addition, its potential benefit in management of shingles will be considered. Al-Hijama and wet cupping are used in many other conditions, but research papers published in peer reviewed journals during the last twenty years are mainly restricted to the above fields. Of note few of the reported studies draw attention to the religious distinction between the technique of Al-Hijama and simple wet cupping, the recipients and the practitioners. However, in 2014 the Taibah theory was put forward as the basis for a physiological explanation of how Al-Hijama works and its distinction from simple wet cupping [2].

Spinal and related pain has been treated in controlled trials on several occasions. (Table 1) In only two studies were patients randomized to one of two interventions. The alternative treatment was with heat pads. In the other studies patients either received standard care or no active intervention. The numbers involved in these studies were small with the largest being of 98 patients with low back pain. Outcome measures were mainly pain rating scores. However, in all studies, patients who received Al-Hijama or wet cupping did significantly better than those who were controls. Future studies need to be larger and conducted over longer periods with independent blinded assessors of the efficacy of the treatments using well-recognized validated tools.

Table 1: Summary of Recent Studies on the use of Al-Hijama in the treatment of painful conditions.

<table>
<thead>
<tr>
<th>Study</th>
<th>Reference</th>
<th>No. of Patients</th>
<th>Outcomes</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck pain</td>
<td>Kim et al. [3]</td>
<td>40</td>
<td>1. Rating index</td>
<td>Al-Hijama v hot pads</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Neck disability index</td>
<td></td>
</tr>
<tr>
<td>Low back pain</td>
<td>Kim et al. [4]</td>
<td>32</td>
<td>1. Rating scale</td>
<td>Al-Hijama v nothing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. McGill Pain Score</td>
<td></td>
</tr>
<tr>
<td>Low back pain</td>
<td>Farhad et al. [5]</td>
<td>98</td>
<td>1. Pain scores</td>
<td>Al-Hijama v standard care</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Analgesic use</td>
<td></td>
</tr>
<tr>
<td>Carpel Tunnel Syndrome</td>
<td>Michalen et al. [6]</td>
<td>52</td>
<td>Pain scores</td>
<td>Al-hijama v hot pads</td>
</tr>
<tr>
<td>Brachialgia</td>
<td>Ludbke et al. [7]</td>
<td>20</td>
<td>Pain rating scale</td>
<td>Al-hijama v nothing</td>
</tr>
</tbody>
</table>

Similar approaches need to be adopted in assessing the role of cupping in the management of hypertension. Lee et al identified two studies after a systematic search of 15 different data bases. Lee et al. [8] One assessed the effectiveness of dry cupping on changes in cerebral vascular function compared with drug therapy. There was a significant effect in favor of cupping on vascular compliance and degree of vascular filling. An uncontrolled observational study tested wet cupping for acute hypertension and found that a one-time treatment reduced blood pressure. Such evidence is not convincing, but it is tantalizing and there is an urgent need for more rigorous assessments especially of wet cupping.

Other areas in which cupping has been investigated includes its role in the management of infection. Cao et al. [9] presented a
systematic review of eight randomized controlled trials involving 651 patients who had infection with Herpes zoster which had resulted in shingles. The methodological quality was considered generally fair in terms of randomization, blinding, and intention-to-treat analysis [9]. Meta-analyses showed wet cupping was superior to medication in the number of cured patients (Relative Risk 2.49, 95% Confidence Interval 1.91 to 3.24, p < .00001), the number of patients with improved symptoms (RR 1.15, 95% CI 1.05 to 1.26, p = .003), and reducing the incidence rate of post-herpetic neuralgia (RR 0.06, 95% CI 0.02 to 0.25, p = .0001).

In addition to considering whether and how effective cupping can be researchers have looked into its mechanism of action. Tagil et al. [10] investigated 31 healthy volunteers in whom they measured serum nitric oxide, malondialdehyde levels and the activity of superoxide dismutase and myeloperoxidase in venous blood. Levels fell consistent with the removal of oxidants and decreased oxidative stress. However, the study was flawed because of the absence of a control group [10]. This contrasts with a randomized controlled trial of 47 healthy young men in whom wet cupping led to a substantial decrease in LDL cholesterol (p < 0.0001) and in the LDL/HDL ratio (p < 0.0001). [10] In 2014 El Sayed [11] attempted to give an integrated physiological explanation as to how Al-Hijama works. His Taibah theory suggests that Al-Hijama works through a "surgical excretory procedure." During the first cupping step a fluid mixture is collected inside the uplifted skin due to the negative pressure inside the sucking cups [11]. This fluid mixture contains collected interstitial fluid, iron, ferritin and haemolysed red cells, filtered fluids from blood capillaries, haemolysed white cells and platelets. This fluid mixture does not contain intact blood cells as they are too big to pass through the pores of skin capillaries and cannot be filtered. Puncturing the skin up liftings and applying a second cupping creates a pressure gradient and a traction force across skin and capillaries and increases filtration at the arterial end of capillaries at net pressure of -163 to -433mmHg and at venous end of capillaries at net pressure of -143 to -413mmHg resulting in a clearance from the blood of iron, ferritin and haemolysed cells [12]. However, this theory needs independent confirmation and does not have the "solid scientific and medical base" claimed by the authors-yet!

In conclusion Al-Hijama continues to show clinical benefit in a range of conditions. Unfortunately, there have been few robust clinical trials which would convince a sceptic of its value. It is important that Muslim practitioners and patients are open to such studies. If this attitude is adopted it will ensure that practitioners deliver Al-Hijama to the highest standards and will reassure new patients and indeed attract more people for therapy. Once its value in clinical conditions has been demonstrated to the wider medical audience then the preventive benefit of Al-Hijama could be more easily investigated.

References
