

## Persian medicine non-pharmacological therapies for headache: phlebotomy and wet cupping

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### Abstract

**OBJECTIVE:** To describe the common causes of headache as well as the different methods of Phlebotomy (Fasd) and wet Cupping (Hijamat) based on Persian Medicine.

**METHODS:** In this study, we searched Google Scholar, Science Direct, PubMed and Scopus to get any in vitro or clinical evidence of the efficacy and possible mechanisms of phlebotomy or wet cupping on different types of headaches. Also different types of headaches, according to PM, under the title of "Sodaa"; extracted from famous Persian medical text books with key words including "Sodaa",

"Bayze" and "Shaqiqe".

**RESULTS:** According to PM, diseases (dystemperament) are created by abnormal alteration in temperament. Temperament is a monolithic quality yielded by interaction between opposing qualities of four elements that are coldness, hotness, dryness and wetness. Headaches are caused by dystemperament (sue-Mizaj) in brain or in total body that are divided into simple and corporal. Common forms of the latter type are Vaporal and Migrant headache (Bokhari and Rihi). Each of these headaches is treated either through phlebotomy or wet cupping.

**CONCLUSION:** In Persian Medicine, Fasd and Hijamat are easy and economical methods for treatment of headache with reasonable results. By describing the precise areas and indications of phlebotomy and wet cupping, this study provides the first step for future clinical trials in this field.

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**Keywords:** Headache; Phlebotomy; Cupping therapy; Sodaa; Persian Medicine

### INTRODUCTION

Headache is one of the most common neurological disorders which have a negative impact on the individual's social life, education, and duties. It also decreases the patient's life expectancy. Its prevalence proportion has been reported as 31%-96% in different countries and 40%-70% and 20%-50% in women and men respectively.<sup>1</sup> International Headache Society (IHS) classified headache into primary and secondary types. Com-

mon primary headaches are migraine, tension-type, and trigeminal autonomic headache (or cluster type).<sup>2</sup> Several hypotheses are considered for pathophysiology of these headaches but the prevalent pathway is the ailment through trigeminal nerve fibers.<sup>1</sup>

There are multiple treatments for headache. The most conventional treatments for the acute phase are acetaminophen, aspirin, chlorpromazine, sumatriptan and non-steroidal anti-inflammatory drugs (NSAIDs) and for the chronic phase tricyclic antidepressants, beta-blockers and anti-epilepsy drugs are prescribed.<sup>3</sup> Due to the recurrence and episodic features of disease and repeated consumption of analgesics, side effects including depression, insomnia, dizziness, constipation, obesity,<sup>3</sup> ischemic colitis,<sup>4</sup> stroke and heart attack appears in patients.<sup>5-7</sup> Therefore more than 50% of patients stop their treatments.<sup>8</sup>

Multiple side effects of mentioned treatments and lack of an appropriate response to the medications, increases the propensity to Complementary and Alternative Medicine (CAM) such as herbal therapy, massage therapy, reflexology, acupuncture, hydrotherapy, homeopathy.<sup>9</sup> In recent studies, the number of patients with neurological problems that have relative improvement with CAM treatments has been increased worldwide.<sup>3,8-13</sup>

PM as a kind of alternative medicine is a method of prevention, diagnosis and treatment based on humoral theory which has a history as old as 8000 years.<sup>14</sup> Its booming period dates back to the golden era of Islam in the early medieval period.<sup>14,15</sup> Medieval Books such as Liber Continent (al-Hawi) of Rhazes (Razi, 9-10th AD), Liber Regius (Royal Book or al-Maliki) of Haly Abbas (10th AD), (al-Qanun fi-Teb) of Avicenna

(10-11th AD) which are the most prominent medical books of Iranian physicians played an important role in western universities as they were taught there up to the seventeenth century AD.<sup>16,17</sup>

Headache is defined as "Sodaa" in Traditional Persian medical books. More than 20 types of headaches (Sodaa) with different causes were listed and over 160 different drugs by oral, topical and nasal usage and non-pharmacological procedures such as Fasd and Hijamat have been used in the treatment of them.<sup>18-22</sup> Fasd and Hijamat among various approaches and methods are as the main non pharmacological treatments in PM,<sup>23</sup> and their application have been investigated in various diseases.<sup>24-32</sup>

Due to importance of headache disorder and therapeutic successes of PM in several diseases, especially in migraine and other types of headaches with Hijamat and Fasd<sup>24,25,29-31</sup> the aim of this study was to explain various techniques of phlebotomy (Fasd) and wet Cupping (Hijamat) therapy for headache in PM.

## METHODS

This study was conducted in the form of a review article, with data being gathered via authentic texts of PM (Illustrated in Table 1). These manuscripts are regarded as the most prominent texts among medical and pharmaceutical books of PM from 10th to 18th century AD.<sup>19-23,33-40</sup>

First, the history, complications, and prohibitions of phlebotomy and cupping therapy were described.<sup>16,17,25,28,41-44</sup> Then, the causes, signs and symptoms of common types of headache in PM are listed and are shown in

Table 1 List of traditional persian manuscripts/books used in this article

No.	Traditional Persian name	Latin or English name	Writer	Living period
1	Ferdows al-Hekmahfi'l-Tibb	The Paradise of Wisdom in Medicine	Ali Ibn Rabban Tabari	8-9th AD <sup>39</sup>
2	Al-Hawifi'l-Tibb	Liber Continent or Comprehensive Book of Medicine	Zakariya Ra'azi	9-10th AD <sup>35</sup>
3	Kamel al-Sanaat al-Tibbyyah	Liber Regius or Complete Book of the Medical Art or Royal Book	Ali Ibn Abbas Majusi Ahwazi (Haly Abbas)	10th AD <sup>37</sup>
4	Hedayat al-Mota'alleminfi'l-Tibb	An Educational Guide for Medical Students	Abu Bakr Akhawayni Bukhari	10th AD <sup>34</sup>
5	Al-Qanunfi'l-Tibb	Canon of Medicine	Hossein Ibn Ali Avicenna (Avicenna)	10-11th AD <sup>22</sup>
6	Zakhirey-e- Kharazmshahi	Treasure of Kharazmshah	Sayyed Esma'il Jorjani.	11-12th AD <sup>30</sup>
7	Al-Aghraz al-Tebbieh va al-Mabahes al-Alayieh	Medical Pursuits	Sayyed Esma'il Jorjani	11-12th AD <sup>36</sup>
8	Al-Mujaz fi al-Tibb	A Commentary on Ibn Sina's Canon	Ibn Nafis Qarshi	13th AD <sup>54</sup>
9	Ikhtiyarat-e-Badiyee	Selections for Badī'i	Zein al-Din Attar Ansari Shirazi	14th AD <sup>38</sup>
10	Tohfat al-Momenin	Rarity of the Faithful	Mohammad Momen Tonekaboni	16th AD <sup>40</sup>
11	Teb-e-Akbari	Akbari's Medicine	Akbar Arzani	17-18th AD <sup>21</sup>
12	Moalejat-e-aghili	Aghili's Treatments	Mohammad Hossein Aghili Khorasani	18th AD <sup>33</sup>
13	Kholasat al-Hekmah	The summary of wisdom	Mohammad Hossein Aghili Khorasani	18th AD <sup>23</sup>
14	Exir-e-Azam	Great Elixir	Mohammad Azam Khan Chasti	18th AD <sup>19</sup>

the Table 2.<sup>19,21,23</sup> Next, multiple pharmaceutical and non-pharmaceutical treatments related to different types of headache were surveyed, and as shown in Table 3; the areas of the body on which Fasd and Hijamat were done in various types of headaches were defined and classified.<sup>19-22,33,36</sup> Furthermore, PubMed, Scopus, Google Scholar and Science Direct databases during 1967 to 2017, were carefully searched with the following keywords: "Headache Syndrome", "Headache Disorder", "Persian Medicine", "Cupping", "Phlebotomy", "Hijamat", "Traditional Medicine", "Vene section", "Complementary and Alternative Medicine", and "Headache and Phlebotomy", and the gathering data was used to assess and explain the potential therapeutic mechanisms of Fasd and Hijamat in headache from the viewpoint of modern medicine.<sup>24,26,29,31,45-48</sup>

### Fasd

Fasd is an Arabic word which means to split and pierce vessel by scalpel, and phlebotomy is a Greek word that

refers to "Vein Cutting" by needle. For the first time, phlebotomy was used by the Egyptians more than 5000 years ago. In 500BC, Hippocrates used a more advanced type of phlebotomy. He believed that it can excrete the waste material out of the body across the vessels. Galen (130-200 AD) proposed phlebotomy for obesity, anxiety, insomnia, phobia, angina and headache. Figure 1 shows the areas that were used for Phlebotomy in the 14th century AD. Nowadays, Phlebotomy is used for polycythemia, hemochromatosis, porphyria, sickle cell disease, and nonalcoholic fatty liver disease with hyperferritinemia.<sup>16,17,27,29,44</sup>

Phlebotomy is accompanied with rare adverse events, such as nausea and vomiting that was occurred after rapid decrease in blood volume, thrombosis, hematoma at the drawing site, syncope and needle-stick injuries among health-care workers (HCWs).<sup>27,29</sup>

Contraindications including: (a) on very cold or very hot areas of the body;<sup>23,28</sup> (b) patients below 14 years old;<sup>23,28</sup> (c) pregnancy;<sup>28</sup> (d) general weakness;<sup>28</sup> (e) pa-

Table 2 Persian Medicine classification and description of the most common types of headaches

Type of headache	Short description in PM	Current type
Simple headache (Sodaa-e-sazaj, hot, cold, wet, dry)	Head lightness/Nose dryness special in Hot-Sodaa and Dry-Sodaa	Tension type
Corporeal headache (Sodaa-e-maddi) (sanguinary, biliary, phlegmatic, melancholic)	Head Heaviness/ Throbbing/Tinnitus /Nausea/Red eyes (Special in sanguinary type)	Migraine
Helmet headache (Sodaa-e-Bayze)	Long duration/Non intermittent/ Recovery with darkness/ Non throbbing	Tension type
Fluting headache (Sodaa-e-bokhari)	Head lightness/Tinnitus/Hot Head in touch/ Pain movement through the head/Throbbing/+_Vertigo and Dizziness	Migraine type
Migrant headache (Sodaa-e-rihi)	Head lightness/Tinnitus/Cold Head in touch/Pain movement through the head	Migraine type
Hemicranial headache (Sodaa-e-shaqiqe)	Throbbing/Hiccup/Nausea/ Anorexia+/-Mydriasis/Tinnitus/ Exacerbation with starving	Migraine type

Table 3 Different areas of fasd and hijamat according to various types of headache

Headache traditional type	Hijamat	Fads	Other method of treatment
Sodaa-e-Sazaj-hot	Interscapular area (the areas T2-T4)	Cephalic vein	Laxative after Fads
Sodaa-e-Sazaj-cold		If necessary, Cephalic vein	Laxative after Fads
Sodaa-e-sanguinary	Interscapular area or Occiput <sup>1</sup> Or calf <sup>2</sup> or Scarification over the auricular cartilage <sup>3</sup> or Noqhrea <sup>4</sup>	Cephalic or Median Vein Or Forehead or Nasal Vein	Laxative /Blood adjust/ Rubbing feet
Sodaa-e-Biliary	Interscapular area	Cephalic vein	Laxative/Heat relief/ Laxing bile
Sodaa-e-Phelegmatic	calf or Occipital	If needed, Median vein	Dry cupping of under breast and calf
Sodaa-e-Melangholic		Cephalic vein with the vast cut	
Sodaa-e-Bayze	Interscapular area	Cephalic vein	
Sodaa-e-Rihi and Bokharri-hot	Interscapular area	Cephalic vein	
Shaghighe-sanguinary	Interscapular area and calf	Cephalic vein or Median Vein or Forehead or Saphenous vein	
Shaghighe-biliary		Cephalic vein and subscapular vein and Basilic vein	Excretion of bile
Shaghighe-cold		Cephalic vein or Median Vein	One week before phlebotomy, eat Monsaj (humor equalizer) and abstain heavy and concentrate food

Notes: 1: squamous part of the occipital bone; 2: posterior upper third of the leg, on the gastrocnemius bulk; 3: asterion (parieto-mastoid suture); 4: posterior middle third of the nape.



Figure 1 Early 14th century pen drawing showing a nude figure of a man indicating parts of the body for bloodletting. Surrounding text is in Latin. Courtesy of Wellcome Library, London<sup>16</sup>

tients over 70 years old;<sup>28</sup> (f) severe thinness<sup>21</sup> or obesity;<sup>28</sup> (g) feverish patients;<sup>28</sup> (h) anemic patients.<sup>28</sup>

### Hijamat

Cupping therapy dates back to approximately 3500 BC, and was first conducted by the Egyptians. Hippocrates and Galen were the first pioneers who recommended cupping therapy for different types of diseases. Avicenna advised the use of wet cupping in the treatment of several diseases and symptoms.

Hijamat is an Arabic word which means to expansion, sucking, and depletion. In this method a cup-like tool is used on the skin. Suction is made by heating or mechanical measures, so from the depths of the body, blood and body fluids, including interstitial fluid is drawn toward the surface of the skin. Then several little scratches are made on the skin to excrete blood.<sup>25,26,41-43,49</sup>

Recent evidences suggest that Hijamat has been very effective in cardiovascular diseases, low back pain, fibromyalgia, shoulder pain, chronic nonspecific neck pain, angina pectoris, arthritis, high blood pressure, ischemic and inflammatory myocardial conditions, herpes zoster, Behçet disease, secondary amenorrhea, depression, anxiety, fatigue, metabolic syndrome and acne vulgaris.<sup>24,26,31,50</sup> Figure 2 shows some of the special areas on which Hijamat is done.<sup>23</sup>

Blister, ecchymosis, infection (including herpes viral infection), factitial panniculitis, vasovagal syncope, compartment syndrome in thigh due to extensive bruising, anemia, skin pigmentation, cardiac hypertrophy, cervical epidural abscess and amnesia due to cupping on the dorsal side of the skull in rare cases; are reported as complications of wet cupping. If it is performed in a fully sterile condition by experienced performer, many of these complications does not occur.<sup>42,43,51</sup>

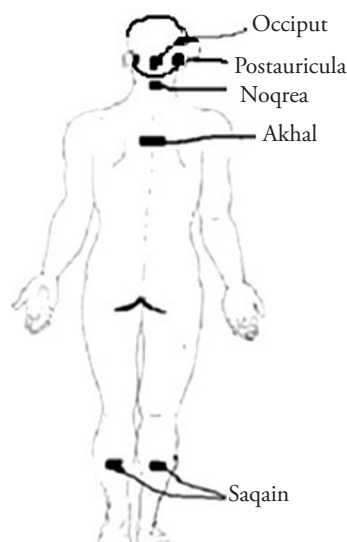


Figure 2 Common places of Hijamat

Contraindications including: (a) patients with dry skin and constipation;<sup>42,43</sup> (b) patients with involuntary spasms;<sup>42,43</sup> (c) ill or weak patients with the risk of fainting;<sup>51,52</sup> (d) feverish patients;<sup>42,43</sup> (e) people under 2 years old and over 60 years old;<sup>42,43,53</sup> (f) acute abdomen or ileus;<sup>43</sup> (g) severe thinness or obesity;<sup>42,43</sup> (h) dyspepsia;<sup>43</sup> (i) pregnant women especially before the fifth month of pregnancy and menstruating women;<sup>42,43</sup> (j) skin areas with dermatitis, ulceration, swelling, enlarged blood vessels, varicose veins, thrombosis, aneurysms, advanced arteriosclerosis, a recently traumatized area;<sup>42,43</sup> (k) patients with bleeding disorders such as aplastic anemia, hemophilia, leukemia, and so on.<sup>42,43,51,52</sup>

### Persian medicine paradigm

Traditional Persian scholars believed that the temperament (Mizaj) of each person is regarded as the basis for their proper nutrition, disease prevention and treatment. Temperament is defined as the combination of the four qualities (coldness, hotness, dryness and wetness) in the body. There are one balanced temperament and eightim balanced temperaments (sue-Mizaj). When food passes through digestive tract, it generally converts to natural humors, including sanguinary (or dam), mucus (or phlegem or balqam), yellow bile (or safaaa), black bile (or melancholy or souda). Diseases that are called sue-Mizaj (dystemperament) in traditional medicine are caused by changes in four qualities or quantities of these cardinal humors in the body. There are two types of dystemperament called simple and compound. Alterations only in qualities of humors are called simple dystemperament and in both quantity and quality are called corporal (Maddi) dystemperament.<sup>14,16,19-23,33,55</sup>

### Etiology of headache in Persian Medicine

In the view point of PM, several causes can lead to headaches, among which the most common mechanisms are dystemperament (sue-Mizaj) in brain or in the whole body, dissociation of brain connections, and



some vapors coming from the stomach, kidney, liver, uterus, peritoneum, and spleen. Furthermore eating some foods including dates (*Phoenix dactylifera*), onion (*Allium cepa*), garlic (*Allium sativum*), walnut (*Juglans regia*), mushroom, cinnamon (*Cinnamomum zeylanicum*) and leek (*Allium porrum*) can also cause headache.<sup>16,17</sup>

### ***Wind/Ventus (Rih) and Vapor (Bokhar) in Traditional Medicine***

Rih means 'wind' that is the cold steam engendered by impacting of mild heat upon thick fluids and moves through the body. It has an important role in the internal organs to help excretion of urine, feces, ejaculation, and erection. It is produced in brain, stomach, uterus and kidney and then moves toward all parts of body such as brain.<sup>50</sup> Generally speaking, this Rih is mostly created by the effect of low body heat on abnormal mucus (balqam) or black bile (souda). The significant feature of Rih in headache sufferer is its role in moving the pain from one point into another, and also in creating a feeling of head lightness, and coldness in some head areas. Vapor (bokhar) is mostly generated by the effect of heat on abnormal sanguine (dam) or yellow bile (safra). In contrast to Rih, Bokhar causes a warm feeling in some head areas.<sup>19,20,22</sup>

### ***Headache types in Persian Medicine***

According to the causes, signs, symptoms and position of pain, the common types of headache (Sodaa) are classified to simple headache (Sodaa-e-sazaj) and corporal headache (Sodaa-e-maddi). That the latter include fluting headache (Sodaa-e-bokhari), migrant headache (Sodaa-e-rihi), hemicranial headache (Sodaa-e-shaqiqe) and helmet headache (Sodaa-e-bayze) that are demonstrated in Table 2.<sup>19-22,33,34,36</sup>

Briefly; internal and external factors that cause headaches include:<sup>19-22,33</sup>

External simple hot headache (Sodaa-e-harr-e-sazaj): caused by intense sunlight, wind, warm bath, or doing extreme physical movements.

Internal simple hot headache (Sodaa-e-harr-e-sazaj): caused by continuous use of dry and hot spices such as pepper, fenugreek, ajwain, and ginger.

External simple cold headache (Sodaa-e-bared-e-sazaj): caused by staying in cold and snowy weather.

Internal simple cold headache (Sodaa-e-bared-e-sazaj): caused by drinking cold water and eating cold and wet foods.

Sanguinary headache (Sodaa-e-Damavi): caused by hyperemia and its raised vapor toward brain.

Phlegmatic headache (Sodaa-e-balqami): caused by the accumulation of abnormal concentrated phlegmatic humors in the brain vessels and membranes.

Yellow biliary headache (Sodaa-e-safravi): caused by the domination of yellow bile and vapors are created toward brain.

Black biliary headache (Sodaa-e-Soudavi): caused by ascending melancholy (souda) toward brain.

External, internal, migrant and fluting headache (Sodaa-e-Rihi and Sodaa-e-Bokhari): caused by ascending external or internal wind (rih) and vapor (bokhar) toward brain.

Helmet Headache (Sodaa-e-Bayze): It is a bilateral, non-throbbing, and late-treated headache which is deteriorated by increased movement, loud sound, and light. It is mainly caused by the aggregation of ventus (rih) and abnormal humors under brain membranes.

Hemicranial Headache (Sodaa-e-Shaqiqe): It is a unilateral, throbbing, and recurring type of headache that is similar to bayze headache, with the exception that in this case, vapors (bokharat) and humors are mainly transferred by either the vessels (arteries and veins) or internal and external brain membranes (the pia mater and dura mater).

### ***Phlebotomy and wet cupping techniques in Persian Medicine***

As shown in Table 3, different methods of Fasd and Hijamat are recommended for various types of Sodaa including the following ones:<sup>19-22,33,36,37,39</sup>

External and internal hot simple headache (Sodaa-e-harr):

If the patient's pulse and symptoms indicate an increase of body humors, these humors will be excreted by Fasd which is performed by Fasd of Cephalic (qifal) Vein. If the patient's constitution is too weak and Fasd cannot be performed, wet cupping between the two scapular areas (akhal) will be used. When more purgation is necessary, laxative is used after fasd.

Cold simple headache (Sodaa-e-bared):

Only when external cold have led to the aggregation of heat and hot-dry vapors in the brain, and only if the necessary conditions, including the patient's competence and gender, as well as the season are all considered; Fasd can be performed.

Sanguinary headache (Sodaa-e-damavi):

At the beginning, Fasd of cephalic (qifal) vein is done at the painful side. Then Hijamat of calf (Hijamat-e-Saqain) will be performed if Fasd is not enough.

Yellow biliary headache (Sodaa-e-safravi):

If expelling of blood is necessary, Fasd of cephalic (qifal) vein will be performed and if it is unfeasible, Hijamat on the Interscapular area will be done.

Phlegmatic headache (Sodaa-e-balqami):

Generally, Fasd is not necessary, but if pharmacological therapies or other non-pharmacological procedures are caused continuous non-stop nasal bleeding, Fasd of cephalic vein will be performed according to the law of "Deviation of the Material" (enheraf-e-madde) according to PM treatment.

Black biliary headache (Sodaa-e-soudavi):

If blood is concentrated, rotten, and redundant; Fasd will be performed regarding the patient's requirement and competence. The incision must be vast enough to let the concentrated black bile be excreted. If blood is not redundant, Fasd will not be necessary.

**Helmet headache (Sodaa-e-Bayze):**

If Sodaa is caused by the sanguinary domination or inflammation in brain membrane, Fasd will be performed, and if there is any impediments against Fasd, Hijamat on interscapular area will be done.

**Sanguinary hemicranial headache (Sodaa-e-Shaqiqe-e-damavi):**

Either Fasd in forehead vein, nose vein, and posterior auricular veins, or Hijamat on interscapular area or in calf are recommended.

**Yellow biliary hemicranial headache (Sodaa-e-Shaqiqe-e-Safravi):**

If it cannot be ameliorated by the ordinary measures, and if there are no contraindications, phlebotomies will be performed with several-day interval on Basilic vein and Cephalic vein in the same side of pain in order to restore the patient's competence.

**Cold hemi cranial headache (Sodaa-e-Shaqiqe-e-Bared):** If necessary, Fasd of Cephalic vein or Median vein can be used, of course with avoiding overeating and slow-digestion foods at one week before Fasd.

Other measures that must be mentioned are laxation and purgation by proper syrups such as sweet plums, violets, and jujube. In sanguinary headache, foot massage or feet rubbing have been recommended as well as using laxatives.

## DISCUSSION

Headache is a common disabling and annoying neurological syndrome with different causes.

Recent studies have confirmed the effectiveness of Hijamat and Fasd in several diseases including fibromyalgia syndrome, acute gouty arthritis, acute facial paralysis, hyperlipidemia, hypercholesterolemia, cough, asthma, acne, atopic dermatitis, chronic idiopathic urticaria, viral infections e.g. herpes zoster, viral hepatitis, bacterial infections e.g. cellulitis, pneumonia and the other diseases. Ghemochromatosis, polycythemia vera, porphyria cutaneatarda, sickle cell disease, nonalcoholic fatty liver disease with hyperferritinemia, acute myelitis and neuralgia.<sup>24-32</sup>

Hijamat probably by reducing interstitial fluid pressure, capillary venous return, venous pressure, and peripheral vascular resistance ameliorates blood flow and relieves congestion and swelling by declining toxins, prostaglandins and inflammatory mediators. These alterations reinstate neuroendocrine balance and hemostasis, relieve muscle spasms, increase oxygen supply, improve tissue perfusion and decrease oxidative stress.<sup>41, 51,52,60</sup>

The above-mentioned advantage of Hijamat lead to these hypothesized for headache:

- (a) It reduces the inflammatory mediators such as IL-6 and Cyclooxygenase-2 that are effective in creating headache.<sup>60-62</sup>
- (b) It excretes the effective neuropeptides in headache

such as substance P, vasoactive intestinal polypeptide and calcitonin gene-related peptide.<sup>46-48,51,60,63</sup>

(c) By decreasing interstitial fluid pressure, subsequent reduction in blood pressure as well as improvement in trigeminal neuralgia are caused that these are predisposing factors for headache.<sup>41,60</sup>

(d) It improves oxygenation and tissue perfusion leading to enhancement of hypoxia that is an involved factor in some types of headache.<sup>41,60,64,65</sup>

(e) It decreases muscle spasm that is a significant cause of different kinds of headaches.<sup>11,41,66</sup>

(f) It reduces free radicals and oxidative stress which are responsible factors for causing in some types of headaches.<sup>41,67-69</sup>

Furthermore according to Traditional Chinese Medicine, wet cupping by scratching the skin can lead to activation of Primo vessels system that this system is being in and around the blood and lymph vessels, nerves, viscera and fascia as well as in the skin, adipose tissue, the brain and the spinal cord, that can produce and mobilize the *Qi* energy that this energy is vital and regulates the body functions. Following these manipulation different organs such as the heart, brain, liver and lymph and blood vessels are connected to each other functioning as a network and this leads to the balance of body.<sup>41,70-73</sup>

Phlebotomy (Fasd) has been recommended in the hyperemia and it acts by decreasing the blood volume.<sup>17,74</sup>

The important issue is that Fasd and Hijamat therapies as the invasive therapeutic methods are not recommended at the first stage of treatment and only when the routine approaches are failed they are prescribed.<sup>19</sup> As the results show; headache that is called Sodaa in PM, is divided into different types which can be treated by several non-pharmacological methods that have been described in details. Regarding the effects of Fasd and Hijamat that have been mentioned in traditional and modern medicine, it seems that Hijamat by several mechanisms and Fasd on the basis of decreasing hemoglobin are very effective methods for headache treatment.<sup>48,74</sup>

In conclusion, Fasd and Hijamat are easy and economical methods for treatment of headache with reasonable results. Therefore, it is recommended for health care workers to learn the exact and correct sites of bloodletting (Fasd and Hijamat) and their indications in different types of headache.

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