

The effect of Hijamah on different health parameters

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Summary. *Objectives:* To find Hijamah as preferred and accepted therapeutic procedure because of its effectiveness and safety in comparison to manufactured drugs toxicity. Cholesterol, triglycerides, blood sugar and blood pressure were selected to investigate the effectiveness of Hijamah in the current study. *Subject and Method:* twenty healthy females were selected as subjects for Hijamah in this study. The selected females were 25-38 years old. Their blood samples were collected and a routine biochemical assessment was carried out on collected venous blood samples. This assessment is carried out two times, once before Hijamah at baseline time and then after ten days of Hijamah. *Result:* The blood assessment results were compared and it is found that blood pressure (systolic and diastolic) was significantly reduced after Hijamah ($P < 0.05$). Furthermore, serum total cholesterol and fasting blood glucose levels were also found to be decreased after Hijamah ($P < 0.05$). *Conclusion:* According to these findings Hijamah is a therapeutic technique that can be effective in decreasing the risks of obesity as well as risks associated with cardiovascular diseases.

Keywords: Hijamah, wet cupping, dry cupping, traditional medicine, Kuwait

Introduction

Hijamah or Blood Cupping is used for therapeutic purposes in various populations around the world (1). The history of use of Hijamah was dated to Hippocrates time (400 BC) (2). Hijamah is considered a cultural practice in the Middle East for thousands of years. In eastern society, the ancient Egyptians were first who use the cupping practice. The first records of use of cupping in Egypt were found in their medical text-book Ebers Papyrus that was written in 1550 BC (3). The Hijamah practice is very old in the UK as well, and its records dated back a long time in the medical history of UK (3).

The Cupping practice can be performed in two ways, with wet-cupping and with dry-cupping. The dry-Cupping is more common in Far-East. Wet-Cupping and is more common in Middle East countries as well as in some parts of Europe (4).

The Dry-Cupping procedure is based on a single suction step. In this technique, the cups are used

to suck skins into the cups. The cups are moved and this therapy is known as moving cupping therapy. In Traditional Wet-Cupping therapy, the skin is cut superficially and cups are used to apply suctions on those cuts, therefore, the wet-cupping technique is a two steps procedure (2-4).

Hijamah is wet-cupping and it literally means to suck and it is one of the ancient methods that have been used in the treatment and cure of a broad range of conditions throughout the Eastern and Western societies. Hijamah is used to treat many medical conditions that include hemophilia, sciatica, migraine, back pains, rheumatic arthritis, and other blood related medical disorders. Traditionally, the primary purpose of cupping is to remove blood that is supposed to be detrimental to the body which in turn relieves the body of possible harm from symptoms leading to a reduction in health (2-4).

AlBalawi (5) suggested that cupping is a therapeutic procedure that can be effective in pain reliefs, to treat blood-related disorders, to relief in inflammatory conditions, and to boost mental and physical

relaxation of patients. It is also reported that deep tissue massage and varicose vein massage can result up to fifty percent improvement in fertility levels. It is considered that the basic principle behind acupressure, acupuncture and Hijamah are very much similar. The only difference is that in wet-Cupping the blood is sucked and released out while in case of acupressure and acupuncture the suction is applied to stimulate the affected areas to obtain the desired results (6-7).

Hijamah Procedure has no reported side effects aside from slight uneasiness due to skin cuts that are applied to suck blood while cupping. To avoid this discomfort and when the patient has a low threshold for pain then a local anesthetic agent can be applied. Also, other possible minor side effect that may occur is the feeling of light-headedness after Hijamah practice. As cupping therapy boosts blood flow to the cupped areas (hyperemia), one may therefore feel warmer because of the vasodilatation taking place and minor sweating may follow (8).

Until now, no studies have been conducted in Kuwait to investigate the effect of Hijamah on health. Therefore, this study aimed to explore the effect of Hijamah on cholesterol, triglycerides, blood sugar and blood pressure on a sample of twenty Kuwaiti women.

Methodology

Subjects

Volunteers were selected from a convenient sample of healthy Kuwaiti females, $n=20$ with a body mass index (BMI in kg/m^2) of 20-25 and ages 25-38 years. Subjects were recruited through flyers and by word of mouth. Excluded were those with high fasting blood glucose, on medication, or has abnormal body temperature. A consent form was signed by all subjects. This study was implemented in accordance with the principles established by the Declaration of Helsinki. The study was approved by the department of food science and nutrition, Kuwait University.

Experimental procedures

Hijamah was implemented only once a month. 2-4 cups with a volume of about 20ml were applied in a single session as needed. The patients were advised not to eat and bath at least 3 hours before Hijamah.

The steps involved in Hijamah are as following:

1. The cupping sites were selected and cleaned with 75% alcohol swabs.
2. A 20 ml cup is applied on the selected sites, the cups were sterilized and a vacuum is created by using a manual vacuum pump. The vacuum is used to make the cup adhere to the selected site.
3. After five minutes, these cups were removed and a sterilized surgical blade was used to make superficial cuts at the site of cupping. After that cups were again applied on these areas as described above.
4. These cups were then removed after 5-10 minutes of suction. The average volume of collected blood was about 5ml/cup.

A maximum of six points (two on each site) were selected in a single session of Hijamah located at the level of kidney, C7 and T2 at the back.

Two samples were taken from each participant, first sample was blood taken before Hijamah at base line and the second sample was taken ten days after Hijamah was performed. All blood samples were tested for serum total cholesterol, triglycerides (TG), and fasting blood glucose (FBG). Moreover, systolic and diastolic blood pressures of the subjects have been recorded before and after Hijamah.

Data Analysis

Paired t- test was performed to evaluate the statistical significance of the results before and after Hijamah values using SPSS software version 21, p values <0.05 were considered significant.

Results

Table 1 shows the demographic characteristics of the participants. According to the table, more than 70% of the study participants received higher education. The majority of the participants were between 25-29 years, which denoted roughly 80% of the total. Fifty four percent of the participants have a monthly income between 1000 and 2000 Kuwaiti Dinar (KD), and 30% have income less than 1000 KD. Fifty seven and forty three percent of the participants live in urban and rural areas, respectively.



Biochemical parameters

Table 2 reveals the comparison of cholesterol, triglycerides and blood glucose of samples before and after Hijamah. Blood samples obtained after Hijamah showed a significant decline in cholesterol level of 4.74 ± 0.13 mmol/L as compared to the cholesterol level before Hijamah 5.01 ± 0.27 mmol/L. There was also a significant decline in blood glucose level after Hijamah 5.10 ± 0.07 mmol/L as compared to the blood glucose level before Hijamah 5.26 ± 0.05 mmol/L. Blood samples obtained after Hijamah showed an insignificant rise in triglycerides level 0.91 ± 0.21 mmol/L as compared to the triglycerides level before Hijamah 0.86 ± 0.16 mmol/L.

Arterial blood pressure

Table 2 also reveals the comparison of systolic and diastolic blood pressure of the patients before and after hijamah. Systolic blood pressure has declined significantly after hijamah (130.78 ± 4.65 mm of Hg) as

compared to the systolic blood pressure before hijamah (141.00 ± 4.54 mm of Hg). Diastolic blood pressure has declined insignificantly after hijamah (80.90 ± 2.9 mm of Hg) as compared to the diastolic blood pressure before hijamah (85.57 ± 2.50 mm of Hg).

Discussion

The current study was performed to evaluate the health improvements in 20 Kuwaiti healthy females after the Hijamah procedure. The medical parameters selected in this study were clinically important in patients with high blood sugar levels, high cholesterol levels and high blood pressures.

The most important factor noted in this study is the decline in the total blood cholesterol level that results in improving metabolic control in patients. Hijamah has been reported to have properties on inhibiting hyperlipidemic formation (9,10). Subsequently, Hijamah may be an effective technique to improve lipoprotein metabolism and defensive against atherosclerosis (11).

The study also reveals that fasting blood sugar level was also significantly declined after Hijamah. Hijamah enhances insulin sensitivity in healthy subjects with normal glucose levels and normoferritinemia (12). Bleeding, due to Hijamah, was found to decrease serum glucose and TG in patient with diabetes (13). This is in agreement with our results.

Hijamah is found to increase blood circulation, eliminate stasis and could have beneficial effect in temporarily decreasing blood pressure due to the reduction in blood volume (13). This is in agreement with our study, since systolic and diastolic blood pressures have dropped significantly before and after Hijamah.

Table 2: Comparison of different health parameters before and after Hijamah

Parameter	Normal values	Before Hijamah	After Hijamah	p-value
Cholesterol (mmol/L)	5.2-6.2 mmol/L	5.01 ± 0.27	4.74 ± 0.13	0.005
Triglycerides (mmol/L)	> 1.7 mmol/L	0.86 ± 0.16	0.91 ± 0.21	0.451
Glucose (mmol/L)	> 5.5 mmol/L	5.26 ± 0.05	5.10 ± 0.07	0.027
Systolic pressure (mm of Hg)	120 mm of Hg	141.00 ± 4.54	130.78 ± 4.65	0.039
Diastolic pressure (mm of Hg)	80 mm of Hg	85.57 ± 2.50	80.90 ± 2.9	0.041

Conclusion

The findings of this study suggest that Hijamah can be effective in treating hypertension as it found to decrease blood pressure. It is also an effective and harmless procedure and might be effective against obesity and blood-related disorders. This is a preliminary study that needs to be confirmed in a large sample.

Acknowledgement

The authors are highly grateful to the participants who gave up their time by taking an active part in this study.

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