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A correlation between wet cupping therapy treatment and Serum lipids profile levels in Thi-Qar governorate –Iraq

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Abstract:

Serum samples,5 ml of venous blood collected before and after cupping from each person. The serum was isolated and processed for subsequent examination at 20 °C. Serum total cholesterol, HDL, LDL, VLDL and TG levels.

The results showed that there was a relative decrease ($p \leq 0.05$) in the group (2) total cholesterol level 147.5 ±23.47 mg/dl after cupping as compared to venous blood sample160.75 ±22.33 mg/dl before of cupping.

Blood sample after cupping, it noted that there was a relative decrease in Triglyceride level 102.5 ± 53.24 mg/dl as compared to venous blood sample125.62 ±53.58mg/dl before of cupping.

In the case of high-density lipoprotein (HDL), there was a relative increase 54.9-±15.11 mg/dl in human blood concentration after cupping as compared to venous blood sample39.06 ±9.08mg/dl before of cupping.

Blood sample from cupping showed highly significant decrease in low-density lipoproteins level72.2 ±31.67 as compared to venous blood sample96.56 ± 21.62 mg/dl before of cupping.

Introduction:

Cupping therapy is an ancient healing methodwhich applied to selected skin points and sub-atmospheric pressure produced, either by heat or by suction [1, 2].

The cupping mechanism of action defined by several hypotheses which till now is not clear [3].The theory of immunomodulation was suggested by [10], indicating that the same mechanisms of action exist for cupping and acupuncture. The immunomodulation theory suggests that by stimulating the skin, manipulating the microenvironment could transform the neuroendocrine-immune system into biological signals and activate it [10]. In general, the effects of sub-atmospheric pressure suction, facilitating peripheral blood circulation, and improving immunity likely played a major role in these mechanisms[4]. On the other hand, the effects of cupping therapy involve an increase in blood flow to the skin[5], a shift in the biomechanical properties of the skin[6], an increase in pain thresholds, an improvement in local anaerobic metabolism[7], a decrease in inflammation[8], and cellular image modulation.Furthermore, cupping therapy will help in cardiovascular disorders, immune system disorders, and metabolic diseases such as migraine, low back pain, fibromyalgia, shoulder pain, recurrent nonspecific neck pain, angina, arthritis, high blood pressure, myocardial ischaemic and inflammatory conditions, herpes zoster, Behc'et disorder, secondary amenorrhea, depression and anxiety, fatigue [9].

It is worth noting that Hyperlipidemia classified into two subcategories,a hypercholesterolemiathat caused for atherosclerosis and cardiac attacks, and a pancreatitis-responsible hypertriglyceridemia. In patients with hyperlipidemia who blood transfusion antihyperlipidemic medication, serum total cholesterol, LDL cholesterol, and triglyceride levels decreased almost twice as much as in patients treated with antihyperlipidemic medication alone [11].

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The present work will describe the effect of cupping treatment on the level total lipid (*i.e*. Total cholesterol, Triglyceride, HDL, LDL and VLDL) on volunteers on Thi-Qar governorate – Iraq.

Material and Methods:

Sixty men (30-45 years of age) were included in the study; patients who underwent wet cupping were fasted for 12-14 hours and the remainder of the study that not taking any antihyperlipidemic medication or high-calories diet intake. Wet cuppingperformed by a skilled person in one of the private cupping clinics in the Thi-Qar governorate. That include incisions (7 incisions with an average depth of 4 millimeters and a length of 1 centimeter) and vacuumed in interscapular region for 3 minutes used for the hygienic procedure. On average, each patient received a cumulative quantity of 40 ml of blood.

Samples Blood Collection

Serum samples: 5 ml of venous blood collected before and after cupping from each person. The blood was able to stand at 27 C° and after that centrifuged for 15 minutes at 2900 rpm. The serum was isolated and processed for subsequent examination at 20 °C. Serum cholesterol; HDL, LDL, VLDL and TGcalculated using the Biolabo Company (France) enzymatic kit system [12]. The equation (Friedwald formula) used to measure indirect serum LDL cholesterol: (TG/5)[13].

Statistical Analysis

To calculate the expressionof the mean± standard deviation. The Social Science Software Statistical Package (SPSS) for Windows version 10.0.0. used to perform all statistical studies. As statistically relevant, ($p < 0.05$) was recognized.

Results

For the findings concerning the serum lipid profile shown in Table (1), The results showed that there was a relative decrease ($p \leq 0.05$) in the group (2) total cholesterol level147.5 ±23.47 mg/dl after cupping as compared to venous blood sample160.75 ±22.33 mg/dl before of cupping.

Blood sample aftercupping, it noted that there was a relative decrease in Triglyceride level 102.5 ± 53.24 mg/dl as compared to venous blood sample125.62 ±53.58mg/dl before of cupping.

In the case of highdensity lipoprotein (HDL), there was a relative increase 54.9-±15.11 mg/dl in human blood concentration after cupping as compared to venous blood sample39.06 ±9.08mg/dl before of cupping.

Blood sample from cupping showed highly significant decrease in low density lipoproteins level72.2 ±31.67 as compared to venous blood sample96.56 ± 21.62 mg/dl before of cupping.

Finally, the results showed a relative decrease in concentration VLDL level 20.4 ±10.45mg/dl after cupping as compared to venous blood sample25.12 ±10.17mg/dl before of cupping.

Table (1) Showed Serum Lipid Profile ConcentrationsBefore and afterthe process

LSD	Group (2)	Group (1)	Lipid profile
After therapy		Before therapy	
16.37	147.5 ±23.47	160.75 ±22.33	Total Cholesterol
	[mg / dl] (mean , ±SD)		
38.17	102.5 ± 53.24	125.62 ±53.58	Triglyceride
	[mg / dl] (mean , ±SD)		

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8.91	54.9 ±15.11	39.06 ±9.08	HDL
	[mg / dl] (mean , ±SD)		
19.38	72.2 ±31.67	96.56 ± 21.62	LDL
	[mg / dl] (mean , ±SD)		
7.56	20.4 ±10.45	25.12 ±10.17	VLDL
	[mg / dl] (mean , ±SD)		

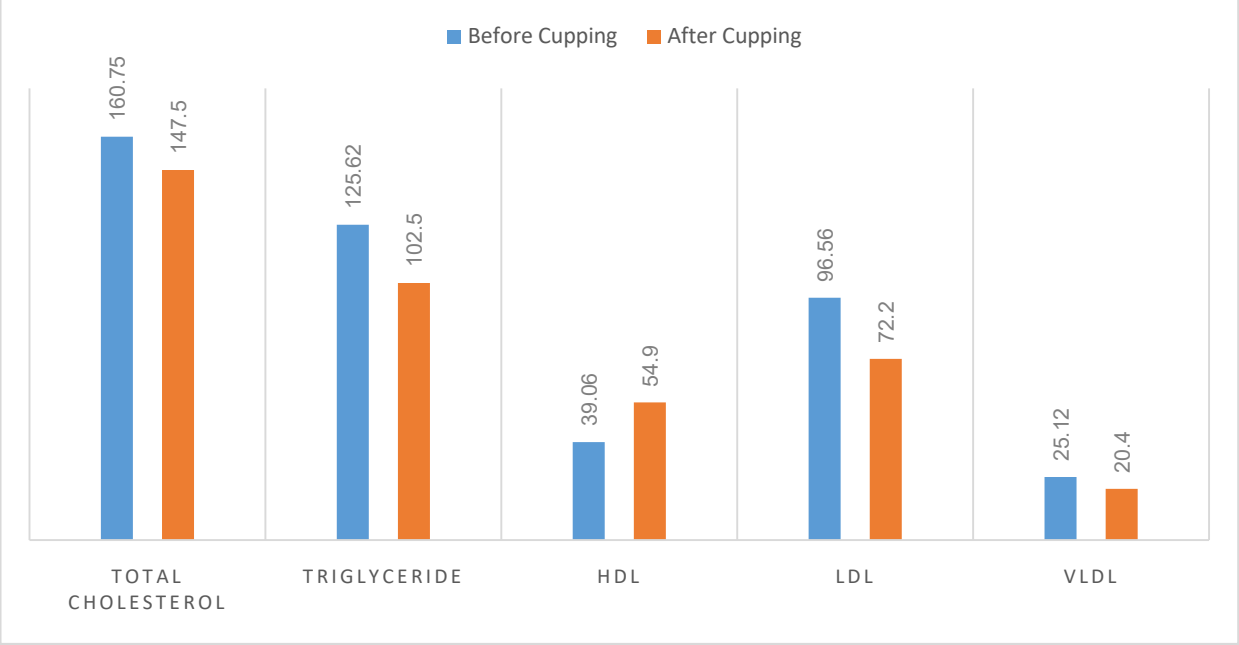

Figure (1) Showed Serum Lipid Profile Concentrations Before and after cupping therapy.

Discussion

The results of the current study showed a significant decrease in total cholesterol, LDL-cholesterol, triglyceride, and LDL after cupping compared to before cupping ($p \leq 0.05$). Although serum HDL increases. Cholesterol and VLDL concentrations in blood highly level correlated with the incidence of ischemic heart disease all over the world. Here comes the significance of cupping therapy with respect to reducing heart disease by raising the concentration of new cholesterol and decreasing harmful cholesterol and triglycerides. Wet cupping may also be one of the ways of improving the lipid profile in patients with diabetes, thus acting as an important tool for improving the metabolism of lipids and thus preventing the production of atherosclerosis, which is in agreement with other studies[14, 15]. A common type of male anxiety and depressive disorders is dyslipidemia [16, 17]. The decrease in lipid profile parameters in males in resent study suggested that wet cupping used to reduce the symptoms of depression. These results of previous study that showed that cupping to help psychological well-being by reduce anger[18].The lipid profile reduced in the men in recent study and that enhance the health of cardiac activity in long term.

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References

1- Arslan M, Yes¸ilc¸am N, Aydin D, Dane S¸. Wet cupping therapy restores sympathovagal imbalances in cardiac rhythm. J Altern Complement Med 2014 Apr 1; 20(4):318e21.
2- Mehta Piyush, Dhapte Vividha. Cupping therapy: a prudent remedy for a plethora of medical ailments. J Tradit Complement Med 2015; 5.3:127-34.
3- Cao H, Li X, Liu J. An updated review of the efficacy of cupping therapy. PLoS One 2012 Feb 28; 7(2):e31793.
4- Zeng K, Wang JW. Clinical application and research progress of cupping. J Acupunct Tuina Sci 2016 Jul 1; 14(4):300e4. Wei, L. I. U...
5- Wei LI, Piao SA, Meng XW, Wei LH. Effects of cupping on blood flow under the skin of back in a healthy human. World J Acupunct Moxibustion 2013 Sep 30; 23(3):50e2.
6- Saha FJ, Schumann S, Cramer H, Hohmann C, Choi KE, Rolke R, et al. The effects of cupping massage in patients with chronic neck pain-a randomized controlled trial. Complement Med Res 2017; 24(1):26e32.
7- Emerich M, Breunig M, Clement HW, Lu¨dtke R, Huber R. Mode of action of cupping local metabolism and pain thresholds in neck pain patients and healthy subjects. Complement Ther Med 2014 Feb 1; 22(1):148e58.
8- Lin ML, Lin CW, Hsieh YH, Wu HC, Shih YS, Su CT, et al. Evaluating the effectiveness of low-level laser and cupping on low back pain by checking the plasma cortisol level. IEEE International Symposium on Bioelectronics and Bioinformatics (IEEE ISBB). 2014 Apr 11. p. 1e4. Chung Li, Taiwan.
9- Khalil AM, Al-Qaoud KM, Shaqqour HM. Investigation of selected immunocytogenetic effects of wet cupping in healthy men. Spatula DD 2013 Jul; 3(2):51e7.
10- Guo Y, Chen B, Wang DQ, Li MY, Lim CH, Guo Y, et al. Cupping regulates local immunomodulation to activate neuroendocrine-immune worked. Complement Ther Clin Pract 2017 Aug 31; 28:1e3.
11- Niagara, M.; Kosari, F.; Ahmadi, A. (2007). The effect of wet cupping on serum lipid concentrations of clinically healthy young men: A randomized controlled trial. J. Altern. and Compl. Med., 13(1), 79-82.
12- Burtis, C. A.; Ashwood, E.R. (1999). In: "Tietz Textbook of Clinical Chemistry and Molecular Diagnostics". 3rd edn. Saunders Co. Philadelphia, 857p.
13- Rifai, N.; Warnick, G.R. (2006). Lipids, lipoproteins, apolipoproteins, and other cardiovascular risk factors. In: "Tietz Textbook of Clinical Chemistry and Molecular Diagnostics" (Burtis, C. A.; Ashwood, E.R.; Bruns, D.E.). 4th edn. Saunders Co. Philadelphia, pp. 948.
14- Ranaei-siadat S, Kheirandish H, Adibi Z, Agin K, Barshan Tashnizi M. The effect of cupping (hejamat) on blood biochemical and immunological parameters. Iran J Pharm Res 2010 ;(Supplement 2):31e2.
15- Mahdavi MRV, Ghazanfari T, Aghajani M, Danyali F, Naseri M. Evaluation of the effects of traditional cupping on the biochemical, hematological, and immunological

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factors of human venous blood. A compendium of essays on alternative therapy Croatia. In Tech 2012; 6.

16- Liang Y, Yan Z, Cai C, Jiang H, Song A, Qiu C. Association between lipid profile and depressive symptoms among Chinese older people: mediation by cardiovascular diseases? Int J Behav Med 2014; 21(4):590e6.

17- Sharma S, Shrestha L, Ojha SP, Jha B. Status of serum lipids in individuals with depression. Ann Clin Chem Lab Med 2016; 2(1):24e7.

18- Farahmand SK, Gang LZ, Saghebi SA, Mohammadi M, Mohammadi S, Mohammadi G, et al. Does wet cupping on the interscapular region improve depression and anxiety? Focus Altern Compl Ther 2014; 19(2):64e9.