

Role of Blood-Let out Cupping Therapy in Angina and Angina Risk Management

Salwa AM Nasrat¹, Salah M El-Sayed² and Abdullah M Nasrat^{3*}

¹Department of Physical Therapy, Cardiac Surgery Academy, Cairo, Egypt

²Department of Biochemistry and Molecular Biology, Taibah University, Medina, Saudi Arabia

³Department of Surgery, Balghsoon Clinic, Jeddah, Saudi Arabia

Abstract

The study aimed at demonstration of the effect of cupping therapy in ischemic myocardial conditions. Despite advances in treatment of myocardial infarction, the mortality rate is still high. In spite of the efficacy and safety of coronary stenting, the overall adverse cardiac events after stent insertion is also high; 8.1%. Accumulation of toxic mediators in the body is a documented fact. These substances can induce vascular spasm and other effects on vascular endothelium. Impairment of the vascular endothelial function is involved in the pathogenesis of wide variety of cardiovascular diseases and hence is considered a therapeutic target. Production of ischemic metabolites within the myocardium due to lack of proper perfusion constitutes a toxic element which can contribute to progression of the coronary heart disease. Elimination of these toxic elements from the targeted tissues and circulation is a challenge that would definitely help to correct an underlying micro-circulatory error. Withdrawal of these ischemic tissue metabolites, being interstitial, is only feasible via superficial scratching on the skin and suction by the traditional therapeutic cups; a maneuver which could lead to correction of an associated spastic ischemic situation at the micro-capillary level.

Three male patients aged between 61-65 years with history of two coronary stents insertion, have developed chest tightness few months after coronary stenting. They hesitated towards undergoing further coronary procedures. They were scheduled for basic cupping therapy on the upper back and front of the chest.

All patients demonstrated dramatic symptomatic relief and documented clinical recovery. Cupping therapy is promising in relieving ischemic myocardial conditions via elimination of inflammatory mediators that compromise the microcirculation.

Keywords: Angina; Angina risk; Cupping therapy

Introduction

Ischemic heart disease is the leading cause of morbidity and mortality in a worldwide epidemic. The epidemic of diabetes and obesity in the developed world and the transition from infectious diseases to cardiovascular disease in the developing world will place an increasing demand on health-care strategies. Diabetes mellitus and peripheral arterial disease are both coronary artery disease equivalents [1-3].

The evolution in clinical practice and the modern management built on clinical evidence base drawn from many studies over the past three decades has substantially reduced mortality and morbidity associated with acute myocardial infarction (MI) [2]. Despite the advances in treatment of MI, the mortality rate before any therapy is administered is still high, with half of all fatalities occurring within 2 hours of symptoms onset [4]. The success of treatment of acute MI and chronic myocardial ischemia has improved general medical care scores, but resulting in an increasing population of patients with chronic and congestive heart failure [5].

The modern developments in medicine allowed adequate facilities of advanced investigations that helped approaching proper diagnosis and assessment of the grade of myocardial ischemia. Decision of the type of interference is vital and time factor is essential in the success of treatment particularly fibrinolysis [4]. Meanwhile it was suggested by some workers that immediate coronary catheterization could be mandatory for high risk patients with typical chest pain even in the emergency department. Other investigators have emphasized that both endothelial and smooth muscle micro-vascular dysfunction could develop after cardiac surgery which would play in turn an important role in the development of what so called micro-vascular angina [6-8].

Restoration of coronary circulation entails a sort of reperfusion injury in the form of myocardial tissue edema, leucocytic infiltration and expression of inflammatory mediators which could further embarrass myocardial perfusion and contributes in this way in the process of the micro-vascular dysfunction following reperfusion [9,10].

The accumulation of toxic metabolites and inflammatory mediators in the tissues and circulation is a fact that has been documented in literature. These substances are implied to induce coronary artery spasm and other effects on vascular endothelium [11]. The vascular endothelium plays an important role in coordinating the coronary micro-vascular flow and vascular smooth muscle tone by liberating several vasodilator substances. The impaired endothelial regulation is therefore involved in the pathogenesis of a wide variety of cardiovascular diseases and hence considered an important therapeutic target [1].

The challenge in the matter of myocardial ischemia is the accumulation of the pro-inflammatory mediators; cytokines and chemokines, in the tissues of the myocardium and circulation leading to micro-vascular spastic situations. Coronary catheterization and insertion of coronary stents are high technologies but can not achieve

***Corresponding author:** Abdullah M Nasrat, Department of Surgery, Balghsoon Clinic, Jeddah, P.O. Box 52611, Jeddah 21573, Saudi Arabia, Tel: +966-012-667-3645; Fax: +966-012-667-3645; E-mail: abdullahalnasrat@yahoo.com

Received April 04, 2015; **Accepted** April 27, 2015; **Published** April 29, 2015

Citation: Nasrat SAM, El-Sayed SM, Nasrat AM (2015) Role of Blood-Let out Cupping Therapy in Angina and Angina Risk Management. J Clin Case Rep 5: 523. doi:10.4172/2165-7920.1000523

Copyright: © 2015 Nasrat SAM, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

in many instances a solution for spasms at a micro-vascular level [9,12]. Withdrawal of these toxic mediators; being interstitial and diffuse, is not feasible via the available clinical measures. Skin scratching and suction via the traditional therapeutic cups is the only way to extract these metabolites; a maneuver that would definitely lead to correction of a coronary micro-circulatory embarrassment. Cupping suction works specifically on the blood trapped within the tissues together with the acidic metabolites which are believed to be functionally obliged to it [12].

Aim

Demonstration of the effect of Blood-Let Out (BLO) cupping therapy in the recovery of ischemic myocardial conditions.

Patients and Methods

The study included three male patients aged between 61-65 years with history of two coronary stents insertion. They were average to well-built, non-smokers without any history of diabetes or dyslipidemia. They were mild to moderate hypertensive well controlled on medications. They developed persistent mild discomfort and recurrent mild chest tightness few months after coronary stent insertion; electro-cardiac examination, level of cardiac enzymes and echocardiography confirmed recurrence of mild myocardial ischemia. They were advised for coronary catheterization and possible stenting but they hesitated towards undergoing a further coronary procedure, they were put on medical treatment and considered to be candidates of chronic myocardial ischemia. They did feel any better in spite of adequate medications; therefore, they were scheduled for a basic BLO cupping therapy on the upper back and front of the chest.

The routine aseptic measures were followed before scratching and after completing suction. Patients were reassured about the skin scratching and about the whole procedure that it includes no risk as the blood removed by cupping suction is just interstitial; sharing in no biological value to the body and is not derived from the circulation [13].

A basic session of cupping therapy while in the prone position was done for all patients on the upper back for the purpose of sero-clearance using 5 large and medium-sized cups. That was followed after short interval by the definitive cupping therapeutic session in supine position over the front of chest using 4-5 medium-sized cups.

Results

All patients demonstrated dramatic symptomatic relief and clinical recovery which was documented by ECG, cardiac enzymes and echocardiography. Interestingly, two patients expressed disappearance of all chest symptoms while they were still in the prone position in the middle of the cupping session on the back. That was correlated to the effect of sero-clearance which is a recognized biological effect of BLO cupping therapy leading to improvement of the oxygen carrying capacity of blood and the ischemic symptoms in turn [13].

Discussion

Since the risk of coronary occlusion is not proportional to stenosis severity alone, it is not surprising that treating one or more stable tight lesions does not reduce the rate of subsequent major cardiac events [14]. This can be explained in part by the fact that the underlying pathology causing the coronary micro-angiospasm which is the inflammatory mediators is not eliminated by the procedure of coronary stent insertion and in another part that the stent could correct an error in a main coronary vessel but not a micro-capillary spastic situation. Therefore;

invasive procedures in myocardial ischemia require a high likelihood of success and acceptable risk of morbidity and mortality and patients should be fully informed about the risk of the therapeutic modality. The technology of coronary stent insertion has achieved a great deal of efficacy and safety; in spite of that, the overall major adverse cardiac events rate after stent insertion was determined around 8.1% which is still a considerable figure [14,15].

Restoration of the coronary circulation in acute myocardial events still constitutes a great challenge in spite of the achieved advanced technology [9]. Successful coronary surgery might not protect from the development of micro-vascular angina due to a micro-circulatory compromise caused by persistence of the reasons leading to endothelial dysfunction [6-8]. Restoration of the coronary circulation entails the risk of ischemia/reperfusion injury which could further embarrass myocardial perfusion and contributes in the development of micro-vascular dysfunction. Nevertheless, ischemic myocardial events remain critical challenge in the medical field and myocardial damage is not terminated immediately even with successful primary percutaneous coronary intervention [9,10].

Prevention is all the time better than treatment. Cupping therapy might give prophylactic and therapeutic answers for many challenges encountered in the matter of myocardial ischemia through withdrawal of the underlying pathology which is the inflammatory mediators particularly in case of angina risk and recurrent conditions of angina. It has been suggested that accumulation of pro-inflammatory cytokines and chemokines constitutes the axis of the problem in myocardial ischemia and that inhibition or disruption of this axis could be a new therapeutic target in selected cardiovascular diseases as well as in stroke in future [9].

A definite previous clinical experience with cupping therapy in myocardial ischemia is not available. Cupping blood-letting out therapy is an experimental observational traditional therapeutic practice that includes a definite solid scientific background derived across centuries from the experimental observations of individual experience. Cupping BLO therapy represents a fundamental cure in case of myocardial ischemia because it eliminates the underlying etiologic pathology which is the trapped ischemic inflammatory mediators within the tissues and myocardium. These substances are being seen and tested at the end of every BLO cupping procedure; even if these elements are not completely removed during the procedure, the circulation can wash out the remaining residual amounts as becoming not obliged to any blood within the tissue spaces any more. The blood removed during BLO cupping therapy is being derived from within the tissues and not from the circulation as documented by the observational evidence that the procedure of BLO reaches a point where blood letting stops whatever the suction is, even in patients under anticoagulants. If it is derived from the circulation, blood-letting out will not stop so long the suction is on. Response of blood to suction is a property of the blood itself and not a property of suction as proved by the observational finding that skin scratching near an abscess or infection followed by suction lets out blood only but never pus or inflammatory exudates; in spite of that, healing of infection is fastened due to local circulatory enhance. Suction in cupping therapy is specific for the blood trapped within the tissues together with the acidic inflammatory mediators which are believed to be functionally obliged to it. There is no available evidence about this functional obligatory relation between the ischemic metabolites and the blood within the tissues except the experimental observation of the physiological behavior of the let-out blood; it never clots within the tissues same as the behavior of blood inside a blood donation bag

due to presence of citrates. Contrary to any other blood in the body like circulating blood or blood within the muscles caused by trauma, the blood within the tissues of cupping therapy never clots inside the body, although it does not lack the ability to clot as it clots fast and hard when it is let outside the body. There should be a substance simulating citrates of the donation bag in effect which gets obliged to this trapped blood to prevent its clotting within the tissues; that should be the acidic inflammatory metabolic mediators which are demonstrated at the end of each cupping procedure; they were isolated and found to be mostly interferon, interleukin and tumor necrosis factor. The definitive therapeutic cupping procedure for myocardial ischemia on the front of chest should be preceded by a basic session of BLO on the upper back for the purpose of sero-clearance or elimination of the undesired blood elements from the circulation. Sero-clearance is an integral biological talent of cupping therapy as it improves blood saturation and tissue perfusion with oxygen. The dramatic relief of chest symptoms expressed by two patients while still being in the middle of the procedure on the back confirms this suggested biological effect of cupping [12,13,16].

Conclusion

The interstitial space, where a lot of biological events take place, is the intelligent yard where cupping therapy exerts its biological talents. The role played by cupping therapy in mild or chronic myocardial ischemia such as recurrent angina and angina risk demonstrated in this study is promising and supports the concept that BLO cupping therapy is worthy of wider practical application and further accurate redetermination. It constitutes a motive for its employment in further grades of myocardial ischemia in future.

References

1. Shimokawa H, Yasuda S (2008) Myocardial ischemia: current concepts and future perspectives. *J Cardiol* 52: 67-78.
2. White HD, Chew DP (2008) Acute myocardial infarction. *Lancet* 372: 570-584.
3. Darius H, Trampisch HJ, Pittrow D, Allenberg JR, Haberl RL, et al. (2008) [Comparison of two coronary risk equivalents: diabetes mellitus and peripheral arterial disease]. *Dtsch Med Wochenschr* 133: 2317-2322.
4. Danchin N, Durand E, Blanchard D (2008) Pre-hospital thrombolysis in perspective. *Eur Heart J* 2008 Oct 23. Epub ahead of print.
5. Brehm M, Stanske B, Strauer BE (2008) Therapeutic potential of stem cells in elderly patients with cardiovascular disease. *Exp Gerontol* 43: 1024-1032.
6. Lee HY, Yoo SM, White CS (2009) Coronary CT angiography in emergency department patients with acute chest pain: triple rule-out protocol versus dedicated coronary CT angiography. *Int J Cardiovasc Imaging* 25: 319-326.
7. Feng J, Liu Y, Clements RT (2008) Calcium-activated potassium channels contribute to human coronary microvascular dysfunction after cardioplegic arrest. *Circulation* 118: S46-S51.
8. Liu QM, Zhou SH, Qi SS, Zhao SP, Minghui L (2008) Significance of the lipid profile and endothelium-dependent vasodilatation in the pathogenesis of microvascular angina. *Cardiol J* 15: 324-328.
9. Bucova M, Bernadic M, Buckingham T (2008) C-reactive protein, cytokines and inflammation in cardiovascular diseases. *Bratisl Lek Listy* 109: 333-340.
10. Ramaraj R, Movahed MR (2008) Microvascular dysfunction following primary percutaneous coronary intervention in the setting of ST-elevation myocardial infarction. *J Invasive Cardiol* 20: 603-614.
11. Ozben B, Erdogan O (2008) The role of inflammation and allergy in acute coronary syndromes. *Inflamm Allergy Drug Targets* 7: 136-144.
12. Nasrat AM (2010) It is neither re-implantation nor implantation, it is hair plantation. *The International Congress of Aesthetic Dermatology, Bangkok, Thailand.*
13. Nasrat AM (2010) Role of blood-let out cupping therapy in taming the wild hepatitis B Virus. *The International Congress of Aesthetic Dermatology and Preventive medicine, Paris.*
14. Galli M, Ebert AG, Carluccio M (2008) [Coronary angiography in stable angina: friends and foes]. *G Ital Cardiol (Rome)* 9: 716-725.
15. Ostovan MA, Mollazadeh R, Kojuri J, Mirabadi M (2008) Experience with paclitaxel-eluting Infimum coronary stents. *Asian Cardiovasc Thorac Ann* 16: 454-458.
16. Nasrat AM (2010) Role of blood-let out cupping therapy in female pelvic congestion syndrome. *The International Congress of Aesthetic Dermatology and Preventive medicine, Dubai.*