

PROPHETIC WET CUPPING PRACTICES FOR DEGENERATIVE DISEASES AT THE WAROENG SEHAT TANGERANG SELATAN: A PRELIMINARY STUDY

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Abstract – Wet cupping recommended by the Islamic prophet is known as the prophetic cupping and believed as the treatment for many illnesses. Yet, evidences are not significantly convincing to suggest cupping is effective for treating chronic degenerative diseases including hypertension, diabetes mellitus, lipid metabolism disorders. In this before and after study, subjects were recruited purposively and interviewed with guided questionnaire. Wet cupping was applied two times in one-month duration. Subjects were analyzed for physical examination including blood pressure and laboratory examination including plasma uric acid, total cholesterol and blood glucose level. Among 15 subjects, 80% already had cupping as routine treatment since 86.7% subject got an improvement during cupping therapy and 93.3% believed cupping is a safe treatment. Systolic and diastolic blood pressures, plasma blood glucose and uric acid level were decreased in the subjects; however, the results did not gain significances from the statistical analysis. Interestingly, plasma total cholesterol level was significantly decreased after the study compared to the before study. In conclusion, subjects believed that cupping is a good and safe treatment. Furthermore, cupping gives a beneficial role in decreasing total cholesterol level in hypercholesterolemia subjects.

INTRODUCTION

Cupping has been practiced throughout centuries as a remedy for many illnesses. The Ebers Papyrus in 1550 B.C had mentioned wet cupping as the treatment to remove noxious or foreign substances from the body. Additionally, ancient Greek physicians had applied cupping for sucking up dangerous materials to the skin surface and continued the blood-letting action to remove the contagious blood from the body. Cucurbit, the other name of cupping in Roman history, was commonly practiced by the physicians in the Roman empire and the cup is widely known as the symbol of the physician. Meanwhile, Chinese physician had applied wet cupping as the remedy for local infection case including skin abscess. Wet cupping recommended by the Islamic prophet is known as the prophetic cupping and believed as the treatment of many illnesses (Rozenfeld, 2016 and York, 2012).

Degenerative disease is often defined as the disease results from the continuous degenerative cells, affecting tissues or organs and worsening over time.

It appears naturally as a person ages and pathologically due to genetic reason or metabolic disorders or lack of healthy life. Metabolic disorders including diabetes, obesity, metabolic syndrome, hypertension, hypercholesterolemia, hyperuricemia are increasing rapidly and connecting each other as traditional risk factors. Recent evidences have shown that wet cupping is widely accepted to give beneficial role in the non-specific pains including neck and shoulder pain (Arslan, 2016 and Lauche, 2012), spondylosis (Meng, 2018) and low back pain (Al Bedah, 2016). One systematic review had concluded that there is promising evidence in favor of the use of wet cupping in the pain management (Al Bedah, 2016). On the other hand, evidence are not quite support the beneficial role of wet cupping

in the degenerative disease setting. Aleyidi et al reported that three wet cupping session provided an immediate reduction of systolic blood pressure and effective for reducing systolic blood pressure in the hypertensive patient for up to 4 weeks (Aleyidi, 2015).

Yet, evidence is not significantly convincing to suggest cupping is effective for treating chronic degenerative diseases including hypertension, diabetes mellitus, lipid metabolism disorders (Lee, 2011 and Al Bedah, 2016).

Prophetic wet cupping has been introduced to Indonesia from 1990 and increasingly gained popularity as a treatment for many illnesses. However, no systematic evidence had been published regarding prophetic wet cupping practices in Indonesian and its relation or efficacies in the degenerative disease patient. This study intends to preliminarily observe the prophetic wet cupping practices from patient perspectives and chemical parameters at the Waroeng Sehat cupping clinic.

MATERIALS AND METHODS

Subject selection

Subjects were recruited purposively at the Waroeng Sehat cupping clinic with the inclusion criterias are : adult from 18 – 60 year old and has degenerative diseases including hypertension, diabetes mellitus, hypercholesterolemia or hyperuricemia. Patients with the history of blood anti-coagulant drug taking or pregnant or baby breast feeding were excluded. Subjects were not subjected to special type of diet or exercise and were allowed free access to every kind food throughout the study period.

Prophetic wet cupping treatment

Subjects were explained all process about prophetic wet cupping. After a brief understanding of the explanation and agreement of study participation, subjects signed the informed consent. Briefly, the cupping process were done as follow: after proper aseptic process, the area were cupped for 5–8 minutes, then incised or punched with the 21G needle and soon re-cupped for around 5 minutes. Finally, after the blood clotting is formed the cup was removed and the area was cleaned and treated with topical antiseptics. Subjects were educated for not taking bath up to 3 hours after cupping process. The prophetic cupping was done twice with the interval of one month. All protocols were done

according to the guidelines approved by the Ethical Committee of Faculty of Medicine and Health Science, Islamic State University Syarif Hidayatullah Jakarta with the registration number Un.01/F10/KP.01.1/KE.SP/10.20.014/2017.

Patient questionnaire

Before the treatment process, subjects were interviewed with the guided questionnaire, asking for the chief complaint, the reason of cupping, the indication and contra-indication of prophetic cupping and the side effect of the cupping.

Blood pressure measurement

Blood pressure was analyzed using the mercurial sphygmomanometer (Rudolph Riester GmbH, Jungingen, Germany). In brief, the subjects were asked to rest for 10 minutes before the measurement. Blood pressure cuff was applied at the right arm of the subjects. The blood pressure measurement was done twice to get the systolic and diastolic pressure of the subjects.

Blood plasma samples

Using the 3 cc syringe, the random non-fasting blood sample (3 cc) of subject was withdrawn from the vein right before the first cupping process and right after the second cupping process. Blood samples were directly transferred from the syringe to the vacutainer and centrifuged for 10 minutes with 5000 rpm. After the centrifugation process, the supernatant was collected and transferred to the Eppendorf tube for further analysis.

Metabolic parameters

Peripheral and plasma blood samples collected from the subjects were used to analyze the metabolic parameters including the uric acid, blood glucose and total cholesterol according to the guideline of the kit. Hyperuricemia was defined as uric acid level above 6 mg/dl. Diabetes was defined as blood glucose level above 200 mg/dl. Hypercholesterolemia was defined as total cholesterol level above 200 mg/dl.

Data analysis

All parameters data are presented as percentage, average and standard deviation (SD). The comparisons of means before and after cupping treatment were performed using Student's t-test or one-way analysis of variance (ANOVA) wherever applicable. Significant differences were statistically

considered as probability value (p)<0.05.

RESULTS AND DISCUSSION

Characteristics and cupping perceptions of subjects

Fifteen patients, 9 males and 6 females, were recruited purposively from the cupping clinic. As depicted in Table 1, seven subjects (60%) came to the cupping clinic due to health complaints related to degenerative disease. Among nine subjects, previous history of hyperuricemia is the most common complaint found in the subjects coming to the cupping clinic (20%). Another reasons were previous history of hypertension (6.7%), high blood glucose level (6.7%) or hypercholesterolemia (6.7%), respectively. Among 15 subjects, twelve subjects (80%) already had cupping as their routine treatment to reduce their complaints, since they feel a significant improvement after the cupping process (Table 1). Additionally, eleven subjects (73.3%) choose cupping treatment since they believed that cupping is eligible not only for healthy person but also for the sick person. Another four subjects

(26.7%) believed that cupping should not be done on the sick people (Table 1).

Interestingly, 14 subjects (93.3%) who already experienced cupping stated that they never experience side effect of cupping during their treatment (Table 1). Limited evidences of cupping side effect were reported. Yao et al have reported one case of epidural abscess from fourth cervical to second thoracic bone confirmed by Magnetic Resonance Imaging due to aseptic application of cupping (Yao, 2016). Turtay et al reported the same case of lumbar abscess after cupping treatment. Inadequate aseptic cupping procedures may facilitate the microorganism to enter into the deeper layer of the skin or body tissue through the open punctured or incised wound as the port d'entrée (Turtay, 2014).

Distribution of diseases

We further examined the physical and laboratory parameter as a confirmation for subjective complaints of the subjects. As depicted in Table 2, among 15 subjects, we found 6 subjects have hypertension (40%), 6 have diabetes (40%), 9 have hyperuricemia (60%) and 10 have hypercholesterolemia (67%).

In contrast with the main subjective complaint of subjects that dominated by history of hyperuricemia, the most common sign found in the subjects coming to the cupping clinic was hypercholesterolemia (67%), as proven by high total cholesterol level in the blood plasma (Table 2). Additionally, degenerative diseases affect metabolic processes and disturb all metabolic parameters. In the late stages, it will result in a multiple condition of increased blood pressure, high level of blood cholesterol, abnormal blood glucose level and uncontrolled body weight or obesity, termed as metabolic syndrome. In accordance with the nature of metabolic syndrome, we found three subjects suffered from single disease (20%), while another 8 subjects (53%) suffered from two diseases and the rest 4 subjects (27%) suffered from three diseases. None of the subjects suffered for all four diseases. Hyperuricemia, which is accompanied by hypercholesterolemia, is the most common multiple sign found in the subjects suffered from two diseases (Table 2).

Metabolic parameters of subjects

As depicted in Table 3, the most common laboratory found in the subject was hypercholesterolemia.

Table 1. Characteristics and cupping perceptions of subjects

Characteristics	Subjects (n = 15)	Percentage (%)
Gender		
Male	9	60
Female	6	40
Reason of cupping		
Hyperuricemia	3	20
Hypercholesterolemia	1	6.7
Diabetes	1	6.7
Hypertension and diabetes	1	6.7
Hypercholesterolemia and diabetes	2	6.7
Myalgia	2	13.3
Other reason	6	40
Cupping eligibility on sick people		
Yes	11	73.3
No	3	20
Depend on situation	1	6.7
Cupping as routine treatment		
Yes	12	80
No	3	20
Improvement after cupping		
Yes	13	86.7
No	2	13.3
Side effect of cupping		
No side effect	14	93.3
Others	1	6.7

Table 2. Distribution of diseases

Characteristics	Subjects (n = 15)	Percentage (%)
Disease		
Hypertension	6	40
Diabetes mellitus	6	40
Hyperuricemia	9	60
Hypercholesterolemia	10	67
Distribution of disease		
One disease	3	20
Two disease	8	53
Three disease	4	27
Combination of two diseases		
Hypertension and hypercholesterolemia	1	12.5
Hypertension and diabetes	1	12.5
Diabetes and hyperuricemia	1	12.5
Diabetes and hypercholesterolemia	1	12.5
Hyperuricemia and hypercholesterolemia	4	50
Combination of three diseases		
Hypertension, diabetes, hypercholesterolemia	2	50
Hypertension, hyperuricemia and hypercholesterolemia	2	50

Ten among fifteen subjects (67%) suffered from high total cholesterol level before cupping treatment with the total cholesterol level of 246 ± 23.24 mg/dL (Table 3). After two application of cupping in one-month duration, the total cholesterol levels from the same subjects were decreased to the level of 202 ± 32.43 mg/dL, and the reduction reached significant definition by statistics ($p=0.002$). Our result enlightened previous studies that wet cupping may play a beneficial role in reducing the plasma cholesterol level. In the diabetic patient suffered from dyslipidemia, Akbari et al found that one-time cupping significantly reduce the plasma cholesterol level (Akbari, 2013). Consistently, Alshowa reported that one-time cupping in ten days duration significantly reduced the plasma total cholesterol, triglycerides and LDL-cholesterol and increased HDL cholesterol (Alshowa, 2010). Routine cupping once a month for five months also significantly reduced the plasma total cholesterol and LDL-cholesterol in the healthy young men (Ranaei-Siadat, 2004). Conclusively, our result was consistent with other previous findings that wet cupping may give benefit in hypercholesterolemia condition.

The blood pressure analysis had shown that systolic pressure of the subjects before cupping is 140 ± 8.94 mmHg and the diastolic is 85 ± 8.3 mmHg. After cupping, systolic and diastolic blood pressure was 138 ± 14.7 mmHg and 78 ± 11.6 mmHg respectively. Numerically, there was a reduction in both systolic and diastolic blood pressure after

cupping, however the reduction did not reach significance statistically ($p = 0.81$ and $p=0.28$). Differently, Aleyeidi et al reported that two times cupping in one-month duration significantly reduced systolic and diastolic blood pressure in hypertensive patient (Aleyeidi, 2015). Another recent studies had also mentioned that cupping significantly reduced systolic blood pressure but not the diastolic one (Al Tabakha, 2018). Though significant reduction was achieved in their study, still they mentioned cupping as a complementary therapy in the hypertensive patients rather than as the main therapy of hypertension. Previous meta-analysis result published by Lee et al., 2010, had reported that cupping is not yet proven to give benefit in hypertensive patient (Lee et al., 2010). Debating results were achieved in the context of cupping role in hypertensive patient so that bigger subject population with longer duration and multiple cupping sessions were needed.

We have revealed also that cupping may reduce blood glucose level from 284 ± 76.27 mg/dL before cupping to 260 ± 111.43 mg/dl after cupping, still the difference did not reach statistical significance (Table 3). Akbari et al., had reported that one-time cupping could significantly reduce not only the blood glucose level but also the HbA1c level (Akbari et al., 2013). Differences may result from the cupping technique and duration.

As depicted in the Table 3, the average of uric acid level before cupping was 8.2 ± 1.61 mg/dL and

8.1 ± 2.82 mg/dL after cupping. This result did not attain significance level in statistic analysis. Different result was reported by Alshowa et al that one-time cupping in ten days duration significantly reduced uric acid level. Further study with longer duration and bigger size of subjects are fully required to elucidate the role of cupping on uric acid level.

Conclusively, we found that cupping has been practiced routinely in our subjects since they considered cupping as good treatment for both healthy and sick people with good improvement of complaints and safe without significant side effects. Furthermore, two-time cupping in one-month duration significantly reduced plasma total cholesterol level in our subjects, suggesting the possible beneficial role of cupping in hypercholesterolemia subjects. Prominent reduction of blood pressure and blood glucose level were also observed, however, the reduction did not attain significance yet in statistical analysis.

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