Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Investigating the effect of Wet cupping on known cardiovascular risk factors and anti-heat shock protein-27 in patients with metabolic syndrome

Protocol summary

Study aim

Investigating the effect of Wet cupping on Coronary risk factors and anti-hate shock protein in patients with metabolic syndrome

Design

A clinical trial, with the control and intervention groups, single-blinded, was randomized on 136 patients with metabolic syndrome.

Settings and conduct

In wet-cupping, a physician or a trained person create a swelling with a glass and a suction device, in the area between the two scapulae in the opposite side of the thymus gland, then 7 to 14 superficial scratches were created on the skin parallel to the midline of the body with a distance of 3 to 5 mm between scratches. The length of each scratch was between 5 to 10 mm, then 3 to 5 consecutive stages, each stage lasting 3 to 5 minutes, are done. Finally, 50 to 70 cc of the participant's blood was taken. Then, the cupping area was completely covered with gas and glue.

Participants/Inclusion and exclusion criteria

Males and females aged between 18 and 65 with metabolic syndrome were allowed to participate in the study; also, participants had not any infectious diseases or coagulopathies, and did not consume any therapeutic diet and/or medication. Individuals with a history of stroke and ischemic heart disease, or consume a therapeutic diet and medication were not allowed to participate in the study.

Intervention groups

The control group was recommended to follow a special diet for a month. Next, the second blood sample was taken from them. Then they followed the diet for another month. Finally, the third blood sample was taken from them. The intervention group was prescribed with the diet and wet-cupping by a specialist. After a month a blood sample (20 cc) was taken from them and the diet and second wet-cupping were prescribed to them again. After another month the last blood sample was taken from them.

Main outcome variables

prevention of hypertension; reduction in anti-hsp27 level

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20201101049213N1**
Registration date: **2020-11-18, 1399/08/28**
Registration timing: **retrospective**

Last update: **2020-11-18, 1399/08/28**
Update count: **0**

Registration date

2020-11-18, 1399/08/28

Registrant information

Name

Ali Ebrahimi Dabagh

Name of organization / entity

Varastegan Institute for Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 51 3890 2249

Email address

ebrahimial@varastegan.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-07-31, 1396/05/09

Expected recruitment end date

2017-12-17, 1396/09/26

Actual recruitment start date

2017-07-31, 1396/05/09

Actual recruitment end date

2017-12-17, 1396/09/26

Trial completion date

2018-02-16, 1396/11/27

Scientific title

Investigating the effect of Wet cupping on known cardiovascular risk factors and anti-heat shock protein-27 in patients with metabolic syndrome

Public title

The effect of Wet cupping on metabolic syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Having metabolic syndrome Age range: 18 to 65 years old Male or female Resident in Mashhad city Absence of consumption of any therapeutic diet and/or medication (antilipidemic medications) Absence of infectious diseases or coagulopathies

Exclusion criteria:

Ages under 18 and above 65 years old Individuals with the history of stroke and ischemic heart disease Consuming a specific therapeutic diet and/or medication Diabetes mellitus type 1 Presence of any infectious disease based on the patient statement, but not be documented by laboratory tests

Age

From **18 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **136**

Actual sample size reached: **136**

Randomization (investigator's opinion)

Randomized

Randomization description

In this randomized clinical trial study, after excluding criteria 136 patients will be recruited. Individuals will be randomized by PASS application and dual block randomization method. One hundred and thirty-six number will be divided into two groups (A: Intervention group, B: Control group), the codes and names are written on a paper and are put in a paper packet. The first participant picks up packet number 1 and is guided to the respective group. Then the second participant picks up packet number 2 and the process continues until all participants are allocated. Due to the type of treatment, there is no possibility of allocation concealment, and blindness could be only single-blind.

Blinding (investigator's opinion)

Single blinded

Blinding description

All participants were not informed about the existence in the control or intervention groups.

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Human Research Ethics committee of Mashhad University of Medical Sciences

Street address

Mashhad University of Medical Sciences, Azadi square

City

Mashhad

Province

Razavi Khorasan

Postal code

9177948564

Approval date

2016-12-24, 1395/10/04

Ethics committee reference number

IRMUMSREC.1395.468

Health conditions studied

1

Description of health condition studied

Metabolic Syndrome

ICD-10 code

E88.81

ICD-10 code description

Metabolic syndrome

Primary outcomes

1

Description

Fasting Blood Glucose (FBG)

Timepoint

Measurement of the FBG at the beginning of the study and a month, 2 months after finishing Wash Out Diet

Method of measurement

Blood sample

2

Description

HDL

Timepoint

Measurement of the HDL at the beginning of the study

and a month, 2 months after finishing Wash Out Diet

Method of measurement

Blood sample

3

Description

LDL

Timepoint

Measurement of the LDL at the beginning of the study and a month, 2 months after finishing Wash Out Diet

Method of measurement

Blood sample

4

Description

Cholesterol

Timepoint

Measurement of the blood cholesterol at the beginning of the study and a month, 2 months after finishing Wash Out Diet

Method of measurement

Blood sample

5

Description

triglyceride

Timepoint

Measurement of the blood triglyceride at the beginning of the study and a month, 2 months after finishing Wash Out Diet

Method of measurement

Blood sample

6

Description

Anti-hsp27

Timepoint

Measurement of the anti-hsp27 at the beginning of the study and a month, 2 months after finishing Wash Out Diet

Method of measurement

Blood sample

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The diet and wet-cupping treatment were prescribed to the intervention group by a specialist. After a month, blood samples (20 cc) of the participants were taken and the diet and second wet-cupping treatment were prescribed to individuals again. After another month the last blood samples were taken from participants. Wet-cupping was performed by a physician or a trained person as general type. A swelling with a glass and a suction device was created, in the area between the two scapulae in the opposite side of the thymus gland, and thereafter, some superficial scratches were created on the skin parallel to the midline of the body with a distance of 3 to 5 mm between scratches. The length of each scratch was between 5 to 10 mm. 7 to 14 scratches were created, as they covered the entire cupping area. Finally, cupping was done in 3 to 5 consecutive stages; each stage lasted 3 to 5 minutes. At the end of cupping, 50 to 70 cc of the participant’s blood was taken, through dilatation and aspiration of capillaries. Then, the cupping area was completely covered with gas and glue.

Category

Treatment - Devices

2

Description

Control group: The control group was recommended to follow a special diet for one month. Next (after 1 month), the second blood sample was taken from them. Then they followed the diet for another month. Finally, the third blood sample was taken from them.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Laboratory of Imam Reza Hospital

Full name of responsible person

Maryam Mohammadi

Street address

Imam Reza Square, Ebne Sina Street

City

Mashhad

Province

Razavi Khorasan

Postal code

9137913316

Phone

+98 51 3854 3031

Fax

Email

IRH.p.relations@mums.ac.ir

2

Recruitment center

Name of recruitment center

Ghaem Hospital

Full name of responsible person

Maryam Mohammadi

Street address

Ghaem Hospital, Ahmad Abad Street, Dr. Shariati Square

City

Mashhad
Province
Razavi Khorasan
Postal code
9919991766
Phone
+98 51 3840 0001
Fax
Email
Quaem.Medical.Center@mums.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Majid Ghayour-Mobarhan
Street address
Azadi Square, Mashhad University of Medical Sciences
City
Mashhad
Province
Razavi Khorasan
Postal code
9177948564
Phone
+98 51 3711 2389
Email
ghayourm@mums.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Mashhad University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Maryam Mohammadi
Position
A clerk at Mashhad University of Medical Sciences
Latest degree
Bachelor
Other areas of specialty/work
Biology
Street address
Mashhad University of Medical Sciences, Azadi Square
City
Mashhad
Province
Razavi Khorasan
Postal code
9177948564
Phone
+98 51 3800 2000
Email
mohammadim3@mums.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Kazem Farahmand
Position
Assistant Professor
Latest degree
Ph.D.
Other areas of specialty/work
Traditional Medicine
Street address
Azadi Square, Mashhad University of Medical Sciences
City
Mashhad
Province
Razavi Khorasan
Postal code
9177948564
Phone
+98 51 3800 2000
Email
FarahmandK1@mums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Varastegan Institute For Medical Sciences
Full name of responsible person
Ali Ebrahimi Dabagh
Position
Student
Latest degree
A Level or less
Other areas of specialty/work
Nutrition
Street address
Varastegan Institute For Medical Sciences, on the corner of Ladan 3, Ladan Street, Vakil Abad Blvd
City
Mashhad
Province
Razavi Khorasan

Postal code
9179666769
Phone
+98 51 3509 1160
Email
ebrahimial@varastegan.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available