

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The effectiveness of the water, milk and lemon juice in the reduction of the infra-cardiac activity

Protocol summary

Summary

Currently, the most radiopharmaceutical commonly used in the myocardial perfusion imaging are Technetium-99m based agents (99mTc- sestamibi and 99mTc-tetrofosmin) are cleared by the liver and excreted through the hepatobiliary system and cause the appearance of activity outside the heart, at liver, bile ducts and intestines. Therefore the sub-diaphragmatic activity may create false-positive and false negative results in the SPECT myocardial perfusion imaging. A total of 100 female patients referred to the nuclear medicine department of the Shahid Beheshti hospital for SPECT MPI at stress phase were randomly divided into 4 groups as follows: Group 1: no intervention; Group 2: 250 ml of water; Group 3: 250 ml of milk; Group 4: 250 ml of diluted lemon juice (100 ml lemon juice and 150 ml of water).

General information

Acronym

MPI

IRCT registration information

IRCT registration number: **IRCT2015080123441N1**

Registration date: **2017-11-08, 1396/08/17**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-11-08, 1396/08/17

Registrant information

Name

Seyyed Hossein Mousavie Anijdan

Name of organization / entity

Babol university of medical sciences

Country

Iran (Islamic Republic of)

Phone

+98 11 3219 0105

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Recruitment status

Recruitment complete

Funding source

Research department of Babol University of Medical Sciences

Expected recruitment start date

2017-04-21, 1396/02/01

Expected recruitment end date

2017-12-22, 1396/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effectiveness of the water, milk and lemon juice in the reduction of the infra-cardiac activity

Public title

The effect of different drinks on the myocardial perfusion scan

Purpose

Diagnostic

Inclusion/Exclusion criteria

Patients without previous history of cholecystectomy; liver-biliary disease; peptic ulcer; diabetes; history of myocardial infarction and heart valve disease and heart failure were enrolled in the study.

Age

From **25 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **100**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Babol University of Medical Sciences

Street address

Mazandaran-Babol-Ganj-Afrooz Avenue

City

Babol

Postal code

47176-47745

Approval date

2015-06-02, 1394/03/12

Ethics committee reference number

IR.MUBABOL.REC.1394.29

Health conditions studied

1

Description of health condition studied

Chronic ischaemic heart disease

ICD-10 code

I25.0

ICD-10 code description

Chronic ischaemic heart disease

Primary outcomes

1

Description

Heart/liver uptake ratio

Timepoint

30 minute after drinking

Method of measurement

imaging with gamma camera

Secondary outcomes

empty

Intervention groups

1

Description

Water

Category

Other

2

Description

No intake(control)

Category

Other

3

Description

milk

Category

Other

4

Description

Lemon joiuce

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Beheshti Hospital

Full name of responsible person

Amir Gholami

Street address

Babol-shahid sargord Ghasemi,St

City

Babol

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Research and Technology department of Babol University of Medical Sciences

Full name of responsible person

Dr. Ali Bijani

Street address

Mazandaran-Babol - Babol University of Medical Sciences-Research and Technology department

City

Babol
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Research and Technology department of Babol University of Medical Sciences
Proportion provided by this source
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

2

Sponsor
Name of organization / entity
Babol University of Medical Sciences
Full name of responsible person
Amir Gholami
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Babol University of Medical Sciences
City
Babol

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Babol University of Medical Sciences
Proportion provided by this source
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

Contact
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty