

Clinical Trial Protocol

Iranian Registry of Clinical Trials

02 Jun 2026

Effects of honey and sucrose on blood glucose and C-peptide in patients with type 1 diabetes mellitus

Protocol summary

Summary

This study aimed to compare the effects of honey and sucrose on blood glucose and c-peptide levels in patients with type 1 diabetes. It is a crossover randomized single blind clinical trial. Inclusion criteria: patients with type 1 diabetes mellitus between ages of 2 and 20 on insulin regimen Exclusion Criteria: Steroid therapy, kidney disease, liver disease, endocrine or metabolic disease. 30 patients were randomly divided in 2 groups and were given sucrose and honey solutions interchangeably with a 1 week washout period. After the consumption of each solution, blood glucose levels were assessed with a glucometer in 0, 30, 60, 90, 120, 180 minutes. Blood samples were obtained in 0 and 120 min intervals to assess c-peptide levels.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017062834783N1**

Registration date: **2017-07-08, 1396/04/17**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-07-08, 1396/04/17

Registrant information

Name

Sara Sedaghat

Name of organization / entity

Gabric Diabetes Association

Country

Iran (Islamic Republic of)

Phone

+98 21 8243 3000

Email address

s.sedaghat@gabric.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Iran University of Medical Sciences

Expected recruitment start date

2016-09-22, 1395/07/01

Expected recruitment end date

2017-02-19, 1395/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of honey and sucrose on blood glucose and C-peptide in patients with type 1 diabetes mellitus

Public title

Effect of honey on blood glucose

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria: patients with type 1 diabetes mellitus; ages of 2 and 20; treated by insulin regimen Exclusion Criteria: Steroid therapy; kidney disease; liver disease; endocrine or metabolic disease

Age

From **2 years** old to **20 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 30

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Crossover

Other design features

Randomization was performed using "random numbers table" and patients were divided in two groups. Blinding was also performed on patients, as neither of the groups were aware of the content of their given solutions.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Iran University of Medical Science

Street address

Medical school, Iran University of Medical sciences,
Hemmat Expway.

City

Tehran

Postal code

Approval date

2017-06-18, 1396/03/28

Ethics committee reference number

IR.IUMS.FMD.Rec 1396.8721215021

Health conditions studied

1

Description of health condition studied

Type 1 diabetes mellitus

ICD-10 code

E10

ICD-10 code description

Insulin-dependent diabetes mellitus

Primary outcomes

1

Description

Blood Glucose

Timepoint

0,30,60,90,120,180

Method of measurement

Glucometry with Glucocard-01 glucometer

2

Description

C-Peptide

Timepoint

0 and 120 min

Method of measurement

Venous blood sample for C-peptide measurement using
ELISA laboratory kits

Secondary outcomes

empty

Intervention groups

1

Description

Honey solution: the amount of honey solution is calculated based on each patients weight, using Nelson's textbook of pediatrics table named "Total daily calorie requirements based on weight"

Category

Other

2

Description

Sucrose solution: the amount of sucrose solution is calculated based on each patients weight, using Nelson's textbook of pediatrics table named "Total daily calorie requirements based on weight". Sucrose solution is prepared by adding sugar to drinking water

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Gabric Diabetes Education Association

Full name of responsible person

Sara Sedaghat

Street address

No 4, 16th St., Vozara St., Argentina Sq.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Iran University of
Medical Sciences

Full name of responsible person

Zhila Cheshmi

Street address

Medical faculty, Iran University of Medical Sciences,
Hemmat expway.

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Vice chancellor for research, Iran University of Medical Sciences

Proportion provided by this source

100

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

Name of organization / entity

Gabric Diabetes Association

Full name of responsible person

Sara Sedaghat

Position

Head of Science Department

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

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Position

Pediatric Endocrinologist

Other areas of specialty/work

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Person responsible for updating data

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Full name of responsible person

Sara Sedaghat

Position

Other areas of specialty/work

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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