Clinical Trial Protocol
Iranian Registry of Clinical Trials

25 Nov 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
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Iran (Islamic Republic of)
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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.

City

Tehran

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

Fahimeh Soheilipour

Position

Pediatric Endocrinologist

Other areas of specialty/work

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Person responsible for updating data

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Name of organization / entity

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Full name of responsible person

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Position

Other areas of specialty/work

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Fax

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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