

# 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.

**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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Iran University of Medical Sciences

**Full name of responsible person**

Fahimeh Soheilipour

**Position**

Pediatric Endocrinologist

**Other areas of specialty/work**

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Sara Sedaghat

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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*