

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Evaluation of changes in serum glucose and insulin concentrations following camel milk intake in type 2 diabetic patients

Protocol summary

Summary

Objective: Evaluation of the effects of camel milk compared with cow milk intake on glucose and insulin concentrations in patients with type 2 diabetes. Design: Randomized, Single blind Setting and conduct: A- Participants including major eligibility criteria - Major inclusion criteria: Patients with type 2 diabetes - Major exclusion criteria: Insulin injection and having cardiovascular and renal diseases - Sample size: 40 B- Intervention: 500 cc camel or cow milk C- Intervention Time: Evaluation of changes in glucose and insulin concentrations in 15, 30, 60, 120, and 180 minutes after consuming milk D- Main outcome: Blood sugar and insulin

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201302024794N6**

Registration date: **2013-02-18, 1391/11/30**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2013-02-18, 1391/11/30

Registrant information

Name

Fereidoun Azizi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 2240 9309

Email address

azizi@endocrine.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for Research Institute for Endocrine Science, Shahid Beheshti University of Medical Sciences

Expected recruitment start date

2012-12-21, 1391/10/01

Expected recruitment end date

2013-08-21, 1392/05/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of changes in serum glucose and insulin concentrations following camel milk intake in type 2 diabetic patients

Public title

camel milk and changes in serum glucose

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion Criteria: Patients with type 2 diabetes; age range: 20 to 70 years old; treatment with diet or oral anti-diabetic drugs. Exclusion Criteria: Treatment with insulin; pregnancy or lactation; smoking and alcohol consumption; body mass index greater than 35 kg/m²; Lactose intolerance; taking estrogenic drugs and corticosteroids; having cardiovascular disease, liver, lung, kidney and Chronic gastrointestinal and thyroid dysfunction; following from the weight loss diets two months prior to study; weight changes (increase or decrease) more than 5 kg two months prior to study.

Age

From **20 years** old to **70 years** old

Gender

Both

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee, Research Institute For Endocrine Sciences, Shahid Beheshti University of Medical S

Street address

Chamran Exp, Yemen street, Shahid Aerabi street, NO. 24

City

Tehran

Postal code

Approval date

2010-09-23, 1389/07/01

Ethics committee reference number

07/09/91 EC 425

Health conditions studied

1

Description of health condition studied

type 2 diabetes

ICD-10 code

E11

ICD-10 code description

Non-insulin-dependent diabetes mellitus

Primary outcomes

1

Description

Blood glucose

Timepoint

Fasting and 15, 30, 60, 120, and 180 minutes after

consuming milk

Method of measurement
Biochemical analysis

2

Description

Insulin

Timepoint

Fasting and 15, 30, 60, 120, and 180 minutes after consuming milk

Method of measurement

Biochemical analysis

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: camel milk, 500 cc

Category

Other

2

Description

Control group: cow milk, 500 cc

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Research Institute for Endocrine Science, Shahid Beheshti University of Medical Sciences

Full name of responsible person

Fereidoun Azizi

Street address

Research Institute For Endocrine Sciences, NO. 24, Shahid Aerabi st, Yemen st, Chamran Exp

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical

Full name of responsible person

Fereidoun Azizi

Street address

Research Institute For Endocrine Sciences, NO. 24,

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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 Institute for Endocrine Sciences, Shahid Beheshti University of Medical

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**

Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences

Full name of responsible person

Fereidoun Azizi

Position

Ph.D of Endocrine Sciences

Other areas of specialty/work**Street address**

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Web page address**Person responsible for updating data****Contact****Name of organization / entity**

Nutrition and Endocrine Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti

Full name of responsible person

Hanieh Sadat Ejtahed

Position

MSc of Nutrition Science

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Web page address**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