Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Effect of Portulaca oleracea L consumption and regular exercise on some inflammatory markers in women with diabetes

Protocol summary

Summary

In a single-blind (supplement and exercise-supplement groups blinding), clinical trial, effects of Purslane seed (Portulaca oleracea. L) with resistance training on cathepsin S, cystatin C and C-reactive protein levels (respectively Cys C, Cat S and CRP) in women with diabetes type 2 was determined. The study population were included all women with diabetes type II in Sari city. 28 members of this community with a mean age of 52 years were divided into 4 groups with blocked randomization method. Inclusion criteria included diabetes type 2 and lack of exercise and exclusion criteria included health and drug therapy. Group A (7.5 g Purslane seed per day), group B (60 minutes resistance training, 3 days in a week), group C (did exercise as group B and used Purslane seed similar to group C) and group D (control). Amount of weight, Cat S, Cys C and CRP factors were measured before and after eight weeks. P-value less than 0.05 was considered statistically significant.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015030517249N3**
Registration date: **2015-05-23, 1394/03/02**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2015-05-23, 1394/03/02

Registrant information

Name

Farzanegi Parvin

Name of organization / entity

Islamic Azad University, Sari Branch

Country

Iran (Islamic Republic of)

Phone

+98 15 1213 3853

Email address

parvin.farzanegi@iausari.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Islamic Azad University, Sari branch

Expected recruitment start date

2013-11-22, 1392/09/01

Expected recruitment end date

2014-02-08, 1392/11/19

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Portulaca oleracea L consumption and regular exercise on some inflammatory markers in women with diabetes

Public title

Effects of exercise and consumption of Purslane seeds on diabetes

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: Not participating in regular physical activity during the last 6 months, Type 2 diabetic patients over 44 years. Exclusion criteria: History of cardiovascular disease, Smoking, Drug therapy (any drugs except Metformin) and if participant is healthy.

Age

From **44 years** old to **60 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **28**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Used

Assignment

Factorial

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Islamic Azad University Sari Branch

Street address

7th km of Sea Road, Sari, Mazandaran, Iran

City

Sari

Postal code

Approval date

2015-05-17, 1394/02/27

Ethics committee reference number

1394/15

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

Cystatin C

Timepoint

Before and 8 weeks after intervention

Method of measurement

ELISA method

2

Description

Cathepsin S

Timepoint

Before and 8 weeks after intervention

Method of measurement

ELISA method

3

Description

CRP

Timepoint

Before and 8 weeks after intervention

Method of measurement

ELISA method

Secondary outcomes

1

Description

Body weight

Timepoint

Before and 8 weeks after intervention

Method of measurement

Scale

Intervention groups

1

Description

Supplement group were consumed daily 7.5 g Purslane seed powder (2.5 g with lunch mile and 5 g with diner mile) mixed with yogurt for 8 weeks.

Category

Other

2

Description

Exercise- supplement group were consumed daily 7.5 g Purslane seed powder (2.5 g with lunch mile and 5 g with diner mile) mixed with yogurt for 8 weeks and also, did resistance exercise with 40 to 50 percent One-repetition maximum by rubber band for 8 weeks, 3 sessions per week and 60 minutes per session.

Category

Other

3

Description

Exercise group did resistance exercise with 40 to 50 percent One-repetition maximum by rubber band for 8 weeks, 3 sessions per week and 60 minutes per session.

Category
Other

4

Description
The control group did not participate in any stages of study.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Sarv club
Full name of responsible person
Roja Daliri
Street address
Sari
City
Sari

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Islamic Azad University, Sari branch
Full name of responsible person
Dr. Mohammad Farsi
Street address
7th km of Sea Road, Sari, Mazandaran, Iran
City
Sari
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, Islamic Azad University, Sari branch
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
Islamic Azad University, Sari Branch
Full name of responsible person
Parvin Farzanegi
Position
PhD
Other areas of specialty/work
Street address
7th km of Sea Road, Sari, Mazandaran, Iran
City
Sari
Postal code
Phone
+98 113305334
Fax
Email
parvin.farzanegi@gmail.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Islamic Azad University, Sari Branch
Full name of responsible person
Parvin Farzanegi
Position
PhD
Other areas of specialty/work
Street address
7th km of Sea Road, Sari, Mazandaran, Iran
City
Sari
Postal code
Phone
+1 133-032-3853
Fax
Email
parvin.farzanegi@gmail.com
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Islamic Azad University, Sari Branch
Full name of responsible person
Parvin Farzanegi
Position
PhD
Other areas of specialty/work
Street address
7th km of Sea Road, Sari, Mazandaran, Iran
City
Sari
Postal code
Phone
+1 133-032-3853
Fax
+98 11330323858
Email

Parvin.farzanegi@gmail.com

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