

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Effect of oral vitamin D3 supplementation on glycemic parameters, lipid profile, and hs-CRP inflammatory factor in polycystic ovarian syndrome

Protocol summary

Summary

The aim of this study is to evaluate the effect of vitamin D3 supplementation on glycemic parameters, lipid profile and hs-CRP inflammatory factor in polycystic ovarian syndrome (PCOS). Fifty women with PCOS who are 18-40 years old and meet the inclusion criteria would be recruited from clinics of Tabriz University of medical sciences. The patients are assigned as a double blind manner into placebo or intervention groups based on age and whether consume drugs. The intervention group receive oral vitamin D3 supplement one tablet every 20 days for 60 days (50000 IU vitamin D3/tablet) and the placebo group receive placebo in the same way. 24h dietary recall for 3 days, anthropometric indices, fasting blood sugar, insulin, triglycerides, lipoproteins, Apo A-1, 25(OH)D, parathyroid hormone and hs-CRP are measured at baseline and after intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138904113140N2**

Registration date: **2010-07-02, 1389/04/11**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2010-07-02, 1389/04/11

Registrant information

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Name of organization / entity

Health and Nutrition Faculty, Tabriz University of medical sciences

Country

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Recruitment status

Recruitment complete

Funding source

Tabriz university of medical sciences, Nutrition research committee

Expected recruitment start date

2010-04-19, 1389/01/30

Expected recruitment end date

2010-08-09, 1389/05/18

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of oral vitamin D3 supplementation on glycemic parameters, lipid profile, and hs-CRP inflammatory factor in polycystic ovarian syndrome

Public title

Effect of vitamin D3 supplementation on polycystic ovarian syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: diagnosis of PCOS based on Rotterdam criteria (presence of two of the three following characteristics: 1. oligomenorrhea /amenorrhea, 2. chemical or clinical finding of hyperandrogenism and 3. polycystic appearance of ovary), voluntary consent for participation in the study, age of 16-40 years, gender: female. Exclusion criteria: Other common causes of hyperandrogenemia and/or anovulation;

hyperprolactinoma, congenital adrenal hyperplasia, Cushing syndrome, and virilizing ovarian or adrenal tumors, diabetes mellitus and heart, kidney and liver dysfunction, using vitamin D or Calcium supplement, metformin or insulin sensitizing drugs, corticosteroids, anticonvulsants during last 2 month or during the study, Smoking, alcohol abuse, breast feeding and pregnancy.

Age

From **18 years** old to **40 years** old

Gender

Female

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

This study would be done in spring and summer which vitamin D effective UV radiation is the same in 38th latitude.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Tabriz university of medical sciences

Street address

Tabriz university of medical sciences

City

Tabriz

Postal code

Approval date

empty

Ethics committee reference number

8911

Health conditions studied

1

Description of health condition studied

Polycystic ovarian syndrome

ICD-10 code

E28.2

ICD-10 code description

Polycystic ovarian syndrome

Primary outcomes

1

Description

improvement of gelycemic parameters

Timepoint

60 days

Method of measurement

serum level of blood suger and fasting Insulin

2

Description

lipid profile and hs-CRP

Timepoint

60 days

Method of measurement

Serum level of HDL, LDL, Total Cholesterol, TG, ApoA1, hs-CRP

3

Description

serum level of alkaline phosphatase, calcium and phosphorus

Timepoint

60 days

Method of measurement

serum level

Secondary outcomes

1

Description

antropometric indicators (BMI)

Timepoint

60 days

Method of measurement

Body weight without shoes with calibrated scale, Standing height without shoes are measured. BMI was calculated with this equation: $W(kg) / H(m)^2$.

2

Description

dietary regime

Timepoint

60 days

Method of measurement

3 days 24h dietaty racall

Intervention groups

1

Description

intervantion group: 50000 IU vitaminD3 every 20 days

for 60 days
Category
Treatment - Drugs

2

Description
control group: placebo every 20 days for 60 days
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Alzahra Hospital and Pardis clinic
Full name of responsible person
Street address
City
Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Research Vice-chancellor of Tabriz University of Medical Sciences and Nutrition Research Center of T
Full name of responsible person
Dr Rashidi and Dr Ostadrahimi
Street address
Health & Nutrition Faculty, Tabriz university of medical sciences, 3rd floor, Golgasht st, Tabriz
City
Tabriz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Research Vice-chancellor of Tabriz University of Medical Sciences and Nutrition Research Center of T
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

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Person responsible for updating data

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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