

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

The effect of pomegranate juice consumption on sperm parameters , structure of chromatin of sperm nucleus and sperm apoptosis in infertile men

Protocol summary

Summary

The aim of this study is to determine the effect of pomegranate juice (PJ) on sperm parameters including count, motility and morphology, also the rate of sperm apoptosis and DNA structure of sperm. Sample is 35 infertile male aged 20-40 years that refer to Yazd research & clinical center of infertility that their sperm analysis showed that at least one of the tree sperm parameters are abnormal. If they are smoker or opioid abuse, have any history of surgery or diseases of reproductive region or any systemic disease , they will be exclude from study. We test sperm apoptosis by TUNEL test and chromatin structure by CMA3 (Chromomycin A3) and SCD(sperm chromatin dispersion), then patients get PJ (from Shadli Co.) 200cc daily for 10 weeks and then all the tests will be repeat. Because of antioxidant activity of PJ, it is suppose that the outcome will be improvement of sperm parameters, decrease of sperm apoptosis and improvement in structure of sperm chromatin.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138804262168N2**

Registration date: **2009-08-07, 1388/05/16**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2009-08-07, 1388/05/16

Registrant information

Name

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

yazd research & clinical center of infertility - Research Institute for Islamic & Complementary Medicine

Expected recruitment start date

2009-09-23, 1388/07/01

Expected recruitment end date

2010-01-21, 1388/11/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of pomegranate juice consumption on sperm parameters , structure of chromatin of sperm nucleus and sperm apoptosis in infertile men

Public title

Study the effect of pomegranate juice on infertile male sperm

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: abnormality in at least one of 3 sperm parameters (count, motility or morphology), age between

20 - 40 years old Exclusion criteria: history of cryptorchidism, varicocele, trauma, azoospermia, any surgery on testis region, specific systemic disease, using systemic disease drug, chronic disease drug or any drug to treat genital system, smoking or opioid abuser.

Age

From **20 years** old to **40 years** old

Gender

Male

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **35**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic committee of Shaheed Sadoughi University of medical sciences and health services

Street address

Shaheed Sadoughi University of medical sciences and health services, Bahonar square

City

Yazd

Postal code

Approval date

2008-02-11, 1386/11/22

Ethics committee reference number

72934/1/17/پ

Health conditions studied

1

Description of health condition studied

Azoospermia and Oligospermia

ICD-10 code

N46

ICD-10 code description

Male infertility

Primary outcomes

1

Description

improvement of structure of sperm chromatin

Timepoint

10 weeks after intervention

Method of measurement

CAM3 test & SCD test

2

Description

improvement of sperm parameters

Timepoint

10 weeks after intervention

Method of measurement

sperm analysis with microscope & macler chamber

3

Description

decrease of sperm apoptosis

Timepoint

10 weeks after intervention

Method of measurement

TUNEL test

Secondary outcomes

1

Description

side effect

Timepoint

during of intervention

Method of measurement

following

Intervention groups

1

Description

consumption of pomegranate juice 200cc/day for 10 weeks

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Yazd Research & Cinical Cenetr for Infertility

Full name of responsible person

Dr. Abdoli A.M.

Street address

Buali avenue-Safaeie-Yazd

City

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yazd Research & Clinical Center for Infertility

Full name of responsible person

Dr. Abdoli A.M.

Street address

Buali avenue-Safaeie-Yazd

City

Yazd

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Yazd Research & Clinical Center for Infertility

Proportion provided by this source
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

2

Sponsor

Name of organization / entity

Research Institute for Islamic & Complementary
Medicine

Full name of responsible person

Dr. Dabbaghian Fattane

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No 1/423-Pirnia alley-North Lalezar avenue-Jomhuri
Eslami avenue

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Tehran

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Research Institute for Islamic & Complementary Medicine

Proportion provided by this source
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

Person responsible for general inquiries

Contact

Name of organization / entity

Shaheed Sadoughi University of medical sciences and
health services

Full name of responsible person

Omid AminiRad

Position

Researcher

Other areas of specialty/work
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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