Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

the effect of antioxidative capacity of cinnamon tea and Vaccinium myrtillus on oxidative stress in petrochemical worker

Protocol summary

Summary

The aim of study is to explore the probable positive effects of vaccinium myrtillus and Cinnamomum zeylanicum on the petrochemical workers through measuring blood oxidative stress markers such as total antioxidant capacity (TAC), total thiol molecules (TTM), lipid peroxidation (LPO), myeloperoxidase (MPO), and DNA damage as the marker of genotoxicity. Male painter with age range 25-45 and the least 5 work history will be inclued the study. Individuals with chronic disease, alcohol consumption, antioxidant consumption, and/or under drug treatment, or exposure to toxic materials, radiation therapy, or substance abuse will be exclud from the study. The study will be perform on 50 male workers who work in petrochemical company. The included subjectswill be administer vaccinium myrtillus and Cinnamon mixture infusion (3 and 0.5 g/100 mL) twice a day for 30 days at 7:00 AM and 2:00 PM every day. .To survey effect of infusion on oxidative stress, befor and after using mixture infusion blood sample will be collect.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014010810003N6**
Registration date: **2014-09-07, 1393/06/16**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-09-07, 1393/06/16

Registrant information

Name

Ali akbar Malekirad

Name of organization / entity

Payame Noor University

Country

Iran (Islamic Republic of)

Phone

+98 86 2422 6073

Email address

malekirad@tabrizu.ac.ir

Recruitment status

Recruitment complete

Funding source

Islamic Uninersity of Damghan Branch

Expected recruitment start date

2014-09-06, 1393/06/15

Expected recruitment end date

2014-10-07, 1393/07/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

the effect of antioxidative capacity of cinnamon tea and Vaccinium myrtillus on oxidative stress in petrochemical worker

Public title

the effect of Vaccinium myrtillus and cinnamon on oxidative stress in petrochemical workers

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion Criteria:age range 25-45;male;the least 5 work history;petrochemical workers Exclusion Criteria: Individuals with chronic disease; alcohol consumption; antioxidant consumption; and/or under drug treatment; or exposure to toxic materials; radiation therapy; or substance abuse

Age

From **25 years** old to **45 years** old

Gender

Male

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **50**

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

Pharmaceutical Sciences Research Center, Tehran University of Medical Science

Street address

Pharmaceutical Sciences Research Center, Faculty of Pharmacy, Tehran University of Medical Science, 16 Azar Street,Tehran 1417614411, Iran

City

Tehran

Postal code

1417614411

Approval date

2012-07-15, 1391/04/25

Ethics committee reference number

91-01-21:1-4

Health conditions studied

1

Description of health condition studied

Occupational exposure

ICD-10 code

Z57.5

ICD-10 code description

Occupational exposure to toxic agents in other industries

Primary outcomes

1

Description

total thiol groups

Timepoint

before and 30 day after intervention

Method of measurement

Hu method

2

Description

total antioxidant capacity of serum

Timepoint

before and 30 day after intervention

Method of measurement

Ferric Reducing Ability of Plasma method

3

Description

lipid peroxidation

Timepoint

before and 30 day after intervention

Method of measurement

thiobarbitturic acid method

4

Description

Myleoperoxidase activity

Timepoint

before and 30 day after intervention

Method of measurement

Elisa Method

5

Description

deoxyribonucleic acid Damage

Timepoint

before and 30 day after intervention

Method of measurement

Elisa method

Secondary outcomes

empty

Intervention groups

1

Description

The petrochemical workers will be administer vaccinium myrtillus and Cinnamon mixture decoction (3 and 0.5 g/100 mL) twice a day for 30 days at 7:00 AM and 2:00 PM every day.

Category

Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Bandar Imam Petrochemical Complex
Full name of responsible person
Ali Akbar Malekirad
Street address
Bandar Imam Petrochemical Complex- Mahshahr- Iran
City
mahshahr

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University of Damghan Branch
Full name of responsible person
Gholamhassan Vaezi
Street address
Islamic Azad University of Damghan Branch, Damghan, Iran
City
damghan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Islamic Azad University of Damghan 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
Payame Noor University
Full name of responsible person
Ali´Akbar Malekirad
Position
PhD.assistant prof.
Other areas of specialty/work
Street address
Amanipour Alley, Khoram street, Arak
City
Arak
Postal code
Phone
+98 86 1223 5541
Fax
Email
ak_malekirad@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Payame Noor University
Full name of responsible person
Ali Akbar Malekirad
Position
Assistant prof. of Physiology
Other areas of specialty/work
Street address
Amanipour Alley, khoram street, Arak, Iran
City
Arak
Postal code
Phone
+98 86 1223 5541
Fax
Email
ak_malekirad@yahoo.com
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Payame Noor University
Full name of responsible person
Ali Akbar Malekirad
Position
PhD.assistant prof.
Other areas of specialty/work
Street address
Amanipour Alley, khoram street, Arak, Iran
City
Arak
Postal code
Phone
+98 86 1223 5541
Fax
Email
ak_malekirad@yahoo.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