

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 2026

The effect of Turmeric on lipid profile, malondialdehyde, liver echogenicity and enzymes in patients with non-alcoholic fatty liver

Protocol summary

Summary

This study aimed to investigate the effect of turmeric on blood lipids (TG, HDL, LDL, VLDL, Total cholesterol) malondialdehyde, liver enzymes (ALT, AST, GGT) and echogenicity of liver in patients with non-alcoholic fatty liver. In this randomized double-blind clinical trial of 60 patients will be divided into 2 groups for 8 weeks of treatment with turmeric capsules (4 capsules daily) or placebo. Liver enzymes, malondialdehyde, lipid profile and the hepatic steatosis as well as anthropometric indices and physical activity at the beginning and end of the study will be determined. Statistical analysis will be done by SPSS version 17. If positive results available then turmeric could be used as source of hypolipidemic and antioxidant for the treatment of fatty liver.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015092924262N1**

Registration date: **2015-10-25, 1394/08/03**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-10-25, 1394/08/03

Registrant information

Name

Maryam Jarahzadeh

Name of organization / entity

Ahvaz Jundishapur university medical science

Country

Iran (Islamic Republic of)

Phone

+98 21 7755 9737

Email address

jarahzadeh.m@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Deputy of research, Paramedical Faculty, Ahvaz Jundishapur University of Medical Sciences

Expected recruitment start date

2015-06-22, 1394/04/01

Expected recruitment end date

2015-11-22, 1394/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of Turmeric on lipid profile, malondialdehyde, liver echogenicity and enzymes in patients with non-alcoholic fatty liver

Public title

Turmeric effect on treatment non-alcoholic fatty liver disease

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: diagnosed fatty liver disease; absence of pregnancy and lactation; absence of diabetes, liver and biliary disorders, Celiac disease and cirrhosis, hepatitis B, C and autoimmune hepatitis. Lack of high blood pressure, cardiovascular disease, lung disease, kidney disease, cancer, thyroid, Wilson and hereditary hematochromatosis, no history of hospitalization or athlete, non-surgical weight loss in the last year, taking drugs like tamoxifen, lithium, phenytoin, antibiotics, metformin, Ursodeoxycholic acid (UDCA), no alcohol, no smoking, no history of hypothyroidism and Cushing's

syndrome

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ahvaz Jundishapur University of Medical Sciences

Street address

Ahvaz Jundishapur University of Medical Sciences
,Golestan Blvd.

City

Ahvaz

Postal code

1614896634

Approval date

2015-05-30, 1394/03/09

Ethics committee reference number

IR-AJUMS.REC.1394.104

Health conditions studied

1

Description of health condition studied

Non alcoholic fatty liver disease

ICD-10 code

K76.0

ICD-10 code description

Fatty (change of) liver, not elsewhere classified

Primary outcomes

1

Description

Aspartate aminotransferase

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of AST with enzymatic method with kit

2

Description

Alanine aminotransferase

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of ALT in blood with enzymatic method with kit

3

Description

Gamma-glutamyl transpeptidase

Timepoint

Before intervention, 2 month later of intervention

Method of measurement

Concentration of GGT in blood with enzymatic method with kit

4

Description

Fasting blood sugar

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration Fasting blood sugar with enzymatic method with kit

5

Description

Total cholestrol

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration cholestrol of serum in fasting stage with enzymatic method with kit

6

Description

HDL-C

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of HDL-C serum in fasting stage with enzymatic method with kit

7

Description

LDL-C

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of LDL-C serum in fasting stage with fried method

8

Description

VLDL

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of VLDL serum in fasting stage with TG/5 Method

9

Description

Triglyceride

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of TG serum in fasting stage with enzymatic method with kit

10

Description

Hepatic steatosis

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Using ultrasound

11

Description

MDA

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Concentration of MDA serum in fasting stage with enzymatic method with kit

Secondary outcomes

1

Description

Weight

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Weight with Kilograms unit

2

Description

Body mass index

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Weight in Kilograms over Height in meters squared

3

Description

Total protein intake

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Dietary recall questionnaire

4

Description

Waist circumference

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Upper hip bone and place a measuring tape around the abdomen

5

Description

Hip circumference

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Hight waist circumference with measuring tape

6

Description

Blood pressure

Timepoint

Before intervention, 2 months after intervention

Method of measurement

$(SBP-DBP) + (DPB)/3$

7

Description

AST/ALT Ratio

Timepoint

Before intervention, 2 months after intervention

Method of measurement

From divition of AST on ALT was made

8

Description

WHR

Timepoint

Before intervention, 2 months after intervention

Method of measurement

waist circumference to Hip circumference ratio

9

Description

Total energy intake

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Dietary recall questionnaire

10

Description

Total carbohydrate intake

Timepoint

Before intervention, 2 month later of intervention

Method of measurement

Dietary recall questionnaire

11

Description

Total fat intake

Timepoint

Before intervention, 2 months after intervention

Method of measurement

Dietary recall questionnaire

Intervention groups

1

Description

Cap containing placebo, 2 gr flour for daily usage for 2 month

Category

Placebo

2

Description

Turmeric with daily dose 2 gr for 2 month

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Education & Treatment Center of Emam Khomeini hospital

Full name of responsible person

Maryam Jarhzadeh

Street address

Emam Khomeini hospital, Azadegan alley

City

Ahvaz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Nutrition and Metabolic Disorders Research Center, Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Nader Saki

Street address

Ahvaz Jundishapur University of Medical Sciences ,

Golestan blvd.

City

Ahvaz

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Nutrition and Metabolic Disorders Research Center, Ahvaz Jundishapur University of Medical Sciences

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

Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Maryam Jarhzadeh

Position

Student of master of science of nutrition science

Other areas of specialty/work

Street address

Ahvaz Jundishapur University of Medical Sciences , Golestan Aven.

City

Tehran

Postal code

1614896634

Phone

+98 21 7755 9737

Fax

+98 21 8844 4040

Email

maryam.jarhzadeh@gmail.com;

jarhzadeh.m@ajums.ac.ir

Web page address

www.jarhzadeh.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

School of paramedicine, Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Durdana Hosain

Position

PhD in Nutrition Sciences

Other areas of specialty/work

Street address

Ahvaz Jodishapur University of Medical Sciences,
Golestan Ave. Ahvaz

City

Ahvaz

Postal code

61349463743

Phone

+98 613323104

Fax

+98 983 373 8330

Email

durdana532@yahoo.com

Web page address

Tehran

Postal code

1614896634

Phone

+98 21 7755 9737

Fax

+98 21 8844 4040

Email

jarahzadeh.m@ajums.ac.ir;
maryam.jarahzadeh@gmail.com;
maryam_jarahzadeh@yahoo.com

Web page address

ww.jarahzadeh.com

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

Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Maryam Jarahzadeh

Position

Student of master of science of nutrition science

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

Ahvaz Jundishapur University of Medical Sciences ,
Golestan Aven.

City**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