Clinical Trial Protocol
Iranian Registry of Clinical Trials

25 Nov 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

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Iran (Islamic Republic of)

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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

Triglyciride

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
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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
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ww.jarahzadeh.com

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