

# 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

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## Person responsible for scientific inquiries

#### Contact

##### Name of organization / entity

School of paramedicine, Ahvaz Jundishapur University of Medical Sciences

##### Full name of responsible person

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##### Position

PhD in Nutrition Sciences

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**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*