

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

27 Jun 2026

### The effect of Artichoke Leaf Extract on Alanine aminotransferase (ALT) and Aspartate aminotransferase (AST) in the patients with Non Alcoholic Steatohepatitis (NASH).

#### Protocol summary

##### Summary

This study is parallel groups randomized clinical trial with a pre and post test design. The purpose of this study was to investigate the effects of Artichoke Leaf Extract on Alanine aminotransferase (ALT) and Aspartate aminotransferase (AST) in the patients with Non Alcoholic Steatohepatitis (NASH). NASH patients were recruited from Gastroenterology and hepatology clinic of Shahid Dr. Chamran hospital in Tehran, Iran in regard to inclusion and Exclusion criteria. To be included patients needed to have: (1) Abnormal serum transaminases  $\geq 30$  U/L (2) Fatty liver in ultrasonography. With these criteria 60 subjects considered in this study. Consent obtained from each patient. They could quit the study freely. The subjects were randomly assigned in two groups; intervention and placebo groups. Intervention group received 6 Cynarckol tablets daily after each meal (2 tablets after break fast, 2 tablets after lunch and 2 tablets after dinner) containing 2700 mg Artichoke Leaf Extract for 8 weeks and placebo group received 2700 mg placebo daily in 6 placebo tablets (2 tablets after break fast, 2 tablets after lunch and 2 tablets after dinner) for 8 weeks. Both groups receive diet and physical activity advice during the study. Diet, exercise and medical dosage were held constant throughout the study. In both groups Alanine aminotransferase (ALT), Aspartate aminotransferase (AST), Fasting blood glucose, Total Cholesterol, LDL Cholesterol, HDL Cholesterol, triglyceride levels were measured at the baseline and will measure at the end of intervention. The results will be compared in two groups by statistical analyses.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2014070218321N1**

Registration date: **2014-08-04, 1393/05/13**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2014-08-04, 1393/05/13

##### Registrant information

###### Name

Vajiheh Rangboo

###### Name of organization / entity

Qazvin University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 28 3333 6001

###### Email address

vrangboo@qums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Qazvin University of Medical Sciences, Faculty of Health

##### Expected recruitment start date

2013-12-22, 1392/10/01

##### Expected recruitment end date

2014-06-22, 1393/04/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of Artichoke Leaf Extract on Alanine aminotransferase (ALT) and Aspartate aminotransferase

(AST) in the patients with Non Alcoholic Steatohepatitis (NASH).

**Public title**

The effect of Artichoke Leaf Extract in the patients with Non Alcoholic Steatohepatitis (NASH).

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion criteria: Abnormal serum transaminases  $\geq$  30 U/L ; Fatty liver in ultrasonography; At least one of the following, FBS greater than 100 mg/dL or a previous diagnosis of type II diabetes,obesity ( Body mass index of 30 or higher ),Blood pressure greater than 130/85 ,Triglyceride-levels greater than 150 mg/dl ,HDL-cholesterol lower than 40 mg/dl (men) and 50 mg/dl (women) ,Total cholesterol greater than 200 mg/dl. Exclusion criteria:Daily alcohol consumption;Type I diabetes;Concomitant liver diseases,Presence of HCV antibody or HBs antigen, auto-immune hepatitis, hemochromatosis, Wilson's disease, alpha1 anti-trypsin deficiency, Biliary obstruction;Use of livergol,Vit E, Vit C,UDCA,Heptotoxic Drug;Treatment with a drug known to induce NASH (amiodarone,calcium channel blocker, tamoxifen), and oral anticoagulation;Decompensated cirrhosis;Serious disease limiting life expectancy;Pregnancy and lactation;people who are Allergy sensitive to the Asteraceae/Compositae family.

**Age**

From **20 years** old to **65 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**

Qazvin University of Medical Sciences

**Street address**

Qazvin,Bahonar bolvar, Pardis, Qazvin University of Medical Sciences

**City**

qazvin

**Postal code**

59811-34197

**Approval date**

2013-10-09, 1392/07/17

**Ethics committee reference number**

28/20/7929

**Health conditions studied****1****Description of health condition studied**

non alcoholic steatohepatitis

**ICD-10 code**

K76.0

**ICD-10 code description**

Fatty (change of) liver, not elsewhere classified

**Primary outcomes****1****Description**

alanine aminotransferase (ALT)

**Timepoint**

before and after intervention

**Method of measurement**

IU/Lit

**2****Description**

aspartate aminotransferas (AST)

**Timepoint**

before and after intervention

**Method of measurement**

IU/Lit

**Secondary outcomes****1****Description**

total cholestrol

**Timepoint**

before and after the intervention

**Method of measurement**

Mg/dL

**2****Description**

LDL-C

**Timepoint**

before and after the intervention

**Method of measurement**

Mg/dL

### 3

**Description**

HDL-C

**Timepoint**

before and after the intervention

**Method of measurement**

Mg/dL

### 4

**Description**

Triglycerid

**Timepoint**

before and after the intervention

**Method of measurement**

Mg/dL

### 5

**Description**

fasting blood sugar

**Timepoint**

before and after the intervention

**Method of measurement**

Mg/dL

## Intervention groups

### 1

**Description**

placebo group received 6 placebo tablets daily (2 tablets after break fast ,2 tablets after lunch and 2 tablets after dinner) for 8 weeks.

**Category**

Placebo

### 2

**Description**

Intervention group received 6 Cynarckol tablets daily, containing 2700 mg Artichoke Leaf Extract after each meal (2 tablets after break fast ,2 tablets after lunch and 2 tablets after dinner) for 8 weeks.

**Category**

Treatment - Drugs

## Recruitment centers

### 1

**Recruitment center****Name of recruitment center**

Chamran Hospital

**Full name of responsible person**

Dr. Seyed Amir Mansoor Rezadoost

**Street address**

Chamran Hospital, Sanaye street, Langari street, Nobonyad squire, Tehran, Iran.

**City**

Tehran

## Sponsors / Funding sources

### 1

**Sponsor****Name of organization / entity**

Qazvin University of Medical Sciences, Faculty of Health

**Full name of responsible person**

Dr. Ali Safari Variani

**Street address**

Faculty of Health, Qazvin University of Medical Sciences, Pardis, Bahonar bolvar, Qazvin.

**City**

Qazvin

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

Yes

**Title of funding source**

Qazvin University of Medical Sciences, Faculty of Health

**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**

Qazvin University of Medical Sciences

**Full name of responsible person**

Vajiheh Rangboo

**Position**

MS student in Nutrition

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## Person responsible for scientific inquiries

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**Fax****Email****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*

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

Qazvin University of Medical Sciences

**Full name of responsible person**

Vajiheh Rangboo

**Position**