

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

31 May 2026

### To determine the effectiveness of Cynara Scolymus extract on lipid profile of hemodialysis patients compared with placebo

#### Protocol summary

##### Summary

Objectives: Regarding the role of inflammatory factors, hyperlipidemia in cardiovascular diseases in hemodialysis patients and lack of research on the effect of artichoke supplement on these factors in hemodialysis patients, the present study was aimed to determine the effects of this plant on lipid and inflammatory factors in patients Hemodialysis was designed. Entry criteria: History of hyperlipidemia in hemodialysis patient; with failure to control blood lipids (serum LDL  $\geq$ 100 mg/dl ); with Age over 18 and under 70 years old; with dialysis 2-3 time weekly every times for 3-4 hours; with The patient's willingness to participate in the research; having a case in considered nephrology center without exclusion criteria; BMI less than 18; Artichoke use at least one month before the start of the study; unwillingness to continue to cooperate or traveling or death; pregnancy and lactation; the development of side effects of drug; lack of medication over a week. According to the statistics consult , sample size is 15 patients in each group, taking in to account the loss of samples 20 patients in each group have been administered as the sample size. For all samples, a full explanation is given about the objectives and methodology of research and samples enrolled after written informed consent. All samples have a questionnaire on demographic characteristics, clinical course that has been set is completed. Then the patient randomly divided in to two groups receiving either placebo or products of artichoke. Based on the random sequences produced by statistics consult, samples randomly divided in to two groups ( capsules artichoke ) and placebo ( starch capsules ). For the double-blind study , collection cans artichoke supplement or placebo by someone other than the researcher encoded so the lack of knowledge of each group for the researcher can be improvised by each group. The samples will be asked to fast in the next visit to clinic. At baseline in fasting , in all the participating patients, 5 ml venous blood is taken before the

intervention and height and weight were also measured. Intervention: In the intervention group, the samples receive artichoke capsules ( 320 mg) up to six weeks, twice daily ( 8 am and 8 pm ). In the same manner the placebo group receives placebo capsule containing starch ( 320 mg) and up to 2 weeks after the drugs have been followed. All samples in both intervention and control groups, routinely receive atorvastatin tablets. The samples will be asked not to change in their diet and physical activity during this study and inform researchers about any changes in their medications. Blood draw is done in the end of week 4 and 8 (after 14-12 hours of fasting ) The main outcome variables: The primary outcome is the reduction of serum LDL levels. Check triglycerides, total cholesterol, HDL, ESR, CRP and serum ferritin levels and serum iron and TIBC in the plan are secondary consequences that the change in percentage of all variables compared with the baselines determined at the week 4 and 8.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2017102022689N5**

Registration date: **2017-11-05, 1396/08/14**

Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2017-11-05, 1396/08/14

##### Registrant information

##### Name

Ebrahim Khadem Azghadi

##### Name of organization / entity

School of Traditional Medicine Tehran University of Medical Sciences

##### Country

Iran (Islamic Republic of)

**Phone**

+98 21 6675 4152

**Email address**

dr.ebrahimkhadem@yahoo.com

**Recruitment status**

**Recruitment complete**

**Funding source**

Vice-Chancellor for Research (Technology & Research)  
Tehran University of Medical Sciences

**Expected recruitment start date**

2017-11-21, 1396/08/30

**Expected recruitment end date**

2018-02-19, 1396/11/30

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

To determine the effectiveness of Cynara Scolymus extract on lipid profile of hemodialysis patients compared with placebo

**Public title**

The effect of Cynara Scolymus on hyperlipidemia

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Entry criteria:History of hyperlipidemia in hemodialysis patient; with failure to control blood lipids (serum LDL  $\geq$ 100 mg/dl );with Age over 18 and under 70 years old;with dialysis 2-3 time weekly every times for 3-4 hours;with The patient's willingness to participate in the research;having a case in considered nephrology center without exclusion criteria;BMI less than 18;Artichoke use at least one month before the start of the study; unwillingness to continue to cooperate or traveling or death; pregnancy and lactation; the development of side effects of drug; lack of medication over a week.

**Age**

From **18 years** old to **70 years** old

**Gender**

Both

**Phase**

3

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **40**

**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**

The ethics committee of Tehran university of medical sciences

**Street address**

Sixth floor, , central building of the Tehran university of medical sciences , Ghods street , Keshavarz blvd

**City**

Tehran

**Postal code**

1417653761

**Approval date**

2016-12-13, 1395/09/23

**Ethics committee reference number**

IR.TUMS.REC.1394.1531

**Health conditions studied**

1

**Description of health condition studied**

End stage renal disease

**ICD-10 code**

N17,N19

**ICD-10 code description**

End stage kidney disease: in allograft failure NOS on dialysis or without dialysis or transplant , Renal retinitis , Uraemic: apoplexia+ , dementia+ , neuropathy+ , paralysis+ , pericarditis

**Primary outcomes**

1

**Description**

serum LDL concentration

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**Secondary outcomes**

1

**Description**

Serum triglyceride concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**2****Description**

Serum HDL concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**3****Description**

Serum cholesterol concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**4****Description**

Serum CRP concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**5****Description**

Serum ESR concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**6****Description**

Serum ferritin concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**7****Description**

Serum iron concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**8****Description**

Serum TIBC concentrations

**Timepoint**

At baseline and at the end of 4 and 8 weeks of study

**Method of measurement**

Special kits

**Intervention groups****1****Description**

In the intervention group, the samples receive artichoke capsules ( 320 mg) up to 6 weeks twice daily ( 8 am and 8 pm ). All samples in both intervention and control groups, routinely receive atorvastatin tablets and low salt diet. The samples will be asked not to change in their diet and physical activity during this study and inform researchers about any changes in their medications.

**Category**

Treatment - Drugs

**2****Description**

In the placebo group, the samples receive placebo capsule containing starch ( 320 mg) up to 6 weeks twice daily ( 8 am and 8 pm ). All samples in both intervention and control groups, routinely receive atorvastatin tablets and low salt diet. The samples will be asked not to change in their diet and physical activity during this study and inform researchers about any changes in their medications.

**Category**

Treatment - Drugs

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Dialysis section of Imam Khomeini hospital

**Full name of responsible person**

Seyyed Mansour Getmiry doctor , specialty of internal medicine and sub-specialty of kidney disease

**Street address**

clinics building , Imam Khomeini hospital complex ,the end of Keshavarz blvd

**City**

tehran

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Vice chancellor for research and technology, Tehran university of medical sciences

**Full name of responsible person**

Masoud Yunesian

**Street address**

sixth floor, central building of Tehran university of medical sciences, Ghods street, Keshavarz boulevard

**City**

tehran

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Vice chancellor for research and technology, Tehran 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**

School of traditional medicine Tehran university of medical sciences ,Vice chancellor for student in

**Full name of responsible person**

Ebrahim Khadem

**Position**

Faculty member of school of traditional medicine of Tehran university , PH.D

**Other areas of specialty/work**

**Street address**

Vice chancellor for student in Tehran university of medical science , building 43 , No. 21 , Fardanesh Alley , Ghods street , Keshavarz boulevard

**City**

tehran

**Postal code**

1417733161

**Phone**

+98 21 8897 4638

**Fax**

+98 21 6443 2512

**Email**

Dr.Ebrahimkhadem@yahoo.com

**Web page address**

http://tim.tums.ac.ir/

**Person responsible for scientific inquiries**

**Contact**

**Name of organization / entity**

Tehran university of medical science ,Imam Khomeini hospital

**Full name of responsible person**

Seyyed mansour Gatmiri

**Position**

specialty of internal medicine and sub-specialty of kidney disease, Associate Professor

**Other areas of specialty/work**

**Street address**

Nephrology research center , Imam Khomeini hospital complex , the end of Keshavarz blvd.

**City**

tehran

**Postal code**

1419733141

**Phone**

+98 21 6119 2679

**Fax**

+98 91210972554

**Email**

gatmiri@tums.ac.ir

**Web page address**

http://ikhc.tums.ac.ir/

**Person responsible for updating data**

**Contact**

**Name of organization / entity**

Tehran university of medical science

**Full name of responsible person**

hanane manghabati

**Position**

resident of internal medicine

**Other areas of specialty/work**

**Street address**

Sixth floor, central building of the Tehran university of medical sciences , Ghods street , Keshavarz blvd

**City**

tehran

**Postal code**

**Phone**

00

**Fax**

**Email**

hana.manghabati@gmail.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