

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The effects of *Nigella sativa* oil supplement on serum systemic inflammatory and oxidative stress markers and lipid profiles in dialysis patients: double-blind clinical trial

#### Protocol summary

##### Study aim

Investigate the effects of *Nigella sativa* oil supplement on inflammatory serum systemic and oxidative stress markers and lipid profiles in hemodialysis patients.

##### Design

A clinical trial with a control group, with parallel groups, double-blind, phase 3 was performed on 50 hemodialysis patients.

##### Settings and conduct

Patients referred to the dialysis ward of Sabzevar Vasei Hospital with inclusion criteria were divided into two groups. All capsules (*Nigella sativa* and placebo) had similar appearance.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: The study subjects were being dialyzed with polysulfone capillary dialyzers 3 times a week for 4 h per session. The study, the hemodialysis procedure and type of dialyzer were not altered. Must be able to swallow capsules. Exclusion criteria: infectious diseases especially hepatitis, patients taking *Nigella sativa* oil, patients taking omega-3 fatty acid supplements, L-carnitine, patients taking vitamin E and/or C supplements, patients taking steroidal and/or non-steroidal anti-inflammatory drugs.

##### Intervention groups

Subjects in the intervention group received 2 capsules were prepared by Barij Essence Kashan Company (1000 mg *Nigella sativa* oil) daily for 8 weeks. whereas the placebo group received 2 placebo capsules containing medium-chain triglyceride oils were prepared by Barij Essence Kashan Company.

##### Main outcome variables

inflammatory factors oxidative stress markers, lipid profiles

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20180122038472N2**

Registration date: **2021-03-17, 1399/12/27**

Registration timing: **retrospective**

Last update: **2021-03-17, 1399/12/27**

Update count: **0**

##### Registration date

2021-03-17, 1399/12/27

##### Registrant information

##### Name

roya akbarzadeh

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 51 4401 8353

##### Email address

akbarzader@medsab.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2017-04-04, 1396/01/15

##### Expected recruitment end date

2017-07-16, 1396/04/25

##### Actual recruitment start date

2017-04-04, 1396/01/15

##### Actual recruitment end date

2017-06-23, 1396/04/02

##### Trial completion date

2017-06-23, 1396/04/02

## Scientific title

The effects of Nigella sativa oil supplement on serum systemic inflammatory and oxidative stress markers and lipid profiles in dialysis patients: double-blind clinical trial

## Public title

The effect of black seed oil in dialysis patients

## Purpose

Supportive

## Inclusion/Exclusion criteria

### Inclusion criteria:

The study subjects were being dialyzed with polysulfone capillary dialyzers 3 times a week for 4 h per session. The study, the hemodialysis procedure and type of dialyzer were not altered. Must be able to swallow capsules.

### Exclusion criteria:

infectious diseases especially hepatitis patients taking Nigella sativa patients taking omega-3 fatty acid supplements, L-carnitine patients taking vitamin E and/or C supplements patients taking steroidal and/or non-steroidal anti-inflammatory drugs.

## Age

From **45 years** old to **75 years** old

## Gender

Both

## Phase

3

## Groups that have been masked

- Participant
- Investigator

## Sample size

Target sample size: **55**

More than 1 sample in each individual

Number of samples in each individual: **2**

At the beginning and the end of week 8, 5 ml blood was collected from each patient after a 12 hour fast before hemodialysis

Actual sample size reached: **50**

## Randomization (investigator's opinion)

Not randomized

## Randomization description

## Blinding (investigator's opinion)

Double blinded

## Blinding description

In the present study, participants and researchers during the study did not know whether each individual would be in the intervention or control group. For blinding, ginger and placebo capsules will be similar in appearance, packaging and labeling. For this double blind study, at the start of the study, a set of bottles containing capsule is encoded A and B, by a person other than the researcher so that the researcher is not aware of the type of capsules received by each group.

## Placebo

Used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Sabzevar University of Medical Sciences

##### Street address

Sabzevar University of Medical sciences, Shohadaye Hastehei Blvd, Sabzevar, Iran

##### City

Sabzevar

##### Province

Razavi Khorasan

##### Postal code

9617913112

#### Approval date

2015-05-25, 1394/03/04

#### Ethics committee reference number

IR.MEDSSAB.REC.1394.12

## Health conditions studied

### 1

#### Description of health condition studied

chronic renal failure

#### ICD-10 code

I13.11

#### ICD-10 code description

end stage renal disease

## Primary outcomes

### 1

#### Description

inflammatory factors, oxidative stress marker, lipid profiles

#### Timepoint

At the beginning and the end of week 8

#### Method of measurement

The serum hs-CRP concentration was determined using enzyme linked immune sorbent assay, the serum malondialdehyde (MDA) concentration was assessed using commercial colorimetric kits, the serum lipids was measured auto-analyzer with Pars Azmoon kits

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: 2 capsules containing 1000 mg of Nigella sativa oil made by Kashan Barij Essential Oil Company were given to the research units daily for 8 weeks.

**Category**

Placebo

**2**

**Description**

Control group: 2 capsules containing medium-chain triglyceride oils made by Kashan Barij Essential Oil Company were given to the research units daily for 8 weeks.

**Category**

Placebo

**Recruitment centers**

**1**

**Recruitment center**

**Name of recruitment center**

Vaseii hospital

**Full name of responsible person**

Ali Tajabadi

**Street address**

Vasei hospital, Shohadaye Hastehei Blvd, Sabzevar, Iran

**City**

Sabzevar

**Province**

Razavi Khorasan

**Postal code**

9617913112

**Phone**

+98 51 4465 1300

**Email**

alitag58@yahoo.com

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Sabzevar University of Medical Sciences

**Full name of responsible person**

Fereshteh Ghorat

**Street address**

Sabzevar University of Medical Sciences, Shohadaye Hastehei Blvd, Sabzevar, Iran

**City**

Sabzevar

**Province**

Razavi Khorasan

**Postal code**

9617913112

**Phone**

+98 51 4401 8417

**Email**

drghorat@gmail.com

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Sabzevar University of Medical Sciences

**Proportion provided by this source**

100

**Public or private sector**

Public

**Domestic or foreign origin**

Domestic

**Category of foreign source of funding**

*empty*

**Country of origin**

**Type of organization providing the funding**

Academic

**Person responsible for general inquiries**

**Contact**

**Name of organization / entity**

Sabzevar University of Medical Sciences

**Full name of responsible person**

Akram Kooshki

**Position**

associate professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Nutrition

**Street address**

Sabzevar University of Medical Sciences, Shohadaye Hastehei Blvd, Sabzevar, Iran

**City**

Sabzevar

**Province**

Razavi Khorasan

**Postal code**

9617913112

**Phone**

+98 51 4401 8328

**Email**

kooshki.nutr@gmail.com

**Person responsible for scientific inquiries**

**Contact**

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**Postal code**

9617913112

**Phone**

+98 51 4401 8328

**Email**

kooshki.nutr@gmail.com

## Person responsible for updating data

**Contact**

**Name of organization / entity**

Sabzevar University of Medical Sciences

**Full name of responsible person**

Roya Akbarzadeh

**Position**

MSc

**Latest degree**

Master

**Other areas of specialty/work**

Nursery

**Street address**

Sabzevar University of Medical Sciences, Shohadaye

Hastehei Blvd, Sabzevar, Iran

**City**

Sabzevar

**Province**

Razavi Khorasan

**Postal code**

9617913112

**Phone**

+98 51 4401 8328

**Email**

roakbarzadeh53@gmail.com

## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to make this available