

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

28 Jun 2026

### Effects of 16 week combined training on cardio-renal syndrome risk factors in hemodialysis patients

#### Protocol summary

##### Summary

Objective: To determine the effect of a combination of sixteen weeks of training on the risk factors associated with coronary-kidney syndromes in patients undergoing hemodialysis. Design: The study group composed of 45 dialysis patients, which will be divided randomly into intervention and control groups. Setting and conduct: The basic amounts of fibroblast growth factor 23 (FGF23), Fetuin A and reactive protein C (CRP) will be measured in all subjects. For the intervention group during dialysis concurrent training for four months is offered. Then, to measure changes in blood factors second blood samples will be taken. Participants: inclusion criteria included adults with renal failure who are on dialysis for at least six months and exclusion criteria of the study included patients who smoke or cannot do exercises. Intervention: Combined activities including aerobic and resistance exercises, three times a week for sixteen weeks. The main outcome variables: the amount of FGF23, Fetuin A and CRP in both groups will be compared.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201106092858N5**  
Registration date: **2015-08-22, 1394/05/31**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2015-08-22, 1394/05/31

##### Registrant information

##### Name

Hamid Taieby Khosroshahy

##### Name of organization / entity

Tabriz University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 41 1337 3966

##### Email address

khosroshahyh@tbzmed.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice chancellor for research, Tabriz University Of Medical Sciences

##### Expected recruitment start date

2015-02-01, 1393/11/12

##### Expected recruitment end date

2015-05-23, 1394/03/02

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effects of 16 week combined training on cardio-renal syndrome risk factors in hemodialysis patients

##### Public title

exercise effects on cardio-renal syndrome risk factors

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: kidney patients; dialysis; the ability to exercise exclusion criteria: inability to exercise; smoking

##### Age

No age limit

##### Gender

Both

**Phase**  
N/A

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **45**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Other

**Other design features**  
The classification to the exercise and control groups was assigned by the sealed envelope

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Tabriz University of Medical Sciences

##### Street address

Daneshgah Ave. Tabriz, East Azarbaijan Province

##### City

Tabriz

##### Postal code

#### Approval date

2015-03-02, 1393/12/11

#### Ethics committee reference number

5/4/12126

## Health conditions studied

### 1

#### Description of health condition studied

kidney disease

#### ICD-10 code

N18.5

#### ICD-10 code description

Chronic kidney disease, stage 5

## Primary outcomes

### 1

#### Description

FGF23

#### Timepoint

befor and after 16 week of exercise

#### Method of measurement

ELISA kit

### 2

#### Description

Fetuin A

#### Timepoint

befor and after 16 week of exercise

#### Method of measurement

ELISA kit

### 3

#### Description

Crp

#### Timepoint

befor and after 16 week of exercise

#### Method of measurement

ELISA kit

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Performing 16 weeks of combined training exercise including aerobic and resistance training, which includes cycling and four leg movements while weights added to the leg. Cycling for 20 minutes or more and three sets of resistance training.

#### Category

N/A

### 2

#### Description

control group: any exercise is given- no exercise

#### Category

N/A

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Shahid Madani Hospital

##### Full name of responsible person

Roughayeh Fakhrpour

##### Street address

Shahid Madani Hospital, Daneshgah St.,Tabriz

##### City

Tabriz

### 2

#### Recruitment center

##### Name of recruitment center

Sina Hospital

**Full name of responsible person**

Roughayeh Fakhrpour

**Street address**

Sina Hospital, Azadi St., Tabriz

**City**

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r.fakhrpour@yahoo.com r.fakhrpour@azaruniv.edu

**Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity**

Tabriz University of Medical Sciences

**Full name of responsible person**

Hamid Tayebi Khosroshahy

**Position**

Phd

**Other areas of specialty/work****Street address**

Emam Reza Hospital, Daneshgah ave. Tabriz

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khosroshahyh@tbzmed.ac.ir

**Web page address****Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Vice chancellor for research, Tabriz University of Medical Sciences

**Full name of responsible person**

Dr. Mohammad Reza Rashidi

**Street address**

Third floor, Second building of Tabriz University of Medical Sciences, Gholgasht ave. Tabriz, East Azarbaijan Province

**City**

Tabriz

**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, Tabriz 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**

Azarbaijan Shahid Madani University

**Full name of responsible person**

Roughayeh Fakhrpour

**Position**

Faculty member, Phd student

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35 th kilometer of Tabriz- Maragheh Road, Tabriz

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Azarbaijan Shahid Madani University

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**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*

