

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

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Name of organization / entity

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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

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2

Recruitment center

Name of recruitment center

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Full name of responsible person

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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

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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

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

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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

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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*

