

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 2026

Effect of physical exercise versus no exercise on blood parameters in hemodialysis patients: a randomized clinical trial

Protocol summary

Summary

Objectives: To assess the effect of physical exercise versus no exercise on blood parameters in hemodialysis patients **Design:** A randomized clinical trial. **Setting and conduct:** The eligible hemodialysis patients who will refer to Besat Hospital during the study period will be enrolled into the trial. **Inclusion criteria:** (a) age of 18 to 65 years; (b) history of hemodialysis for at least 3 months; (c) serum ferritin level between 200 to 400 ng/dl. **Exclusion criteria:** (a) not participating in the program for 2 consecutive sessions or three sequential sessions; (b) need to kidney transplantation; (c) having cardiovascular diseases or musculoskeletal disorders; (d) history of cerebral ischemia during the last 3 months; (e) contraindication for physical activity. **Intervention group:** Routine hemodialysis plus physical activity 3 sessions a week for 4 weeks. **Control group:** Routine hemodialysis alone without physical activity. **Primary outcome:** (a) assessing the RBC before and one month after beginning of intervention through laboratory techniques; (b) assessing the WBC before and one month after beginning of intervention through laboratory techniques; (c) assessing the hemoglobin before and one month after beginning of intervention through laboratory techniques; (d) assessing the hematocrit before and one month after beginning of intervention through laboratory techniques; (e) assessing the platelet before and one month after beginning of intervention through laboratory techniques; (f) assessing the BUN before and one month after beginning of intervention through laboratory techniques; (g) assessing the creatinine before and one month after beginning of intervention through laboratory techniques. **Secondary outcome:** Nothing.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201506139014N69**

Registration date: **2015-06-18, 1394/03/28**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-06-18, 1394/03/28

Registrant information

Name

Jalal Poorolajal

Name of organization / entity

Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice-chancellor for Research the Technology, Hamadan University of Medical Sciences

Expected recruitment start date

2015-02-20, 1393/12/01

Expected recruitment end date

2015-06-21, 1394/03/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of physical exercise versus no exercise on blood parameters in hemodialysis patients: a randomized

clinical trial

Public title

Effect of physical exercise versus no exercise on blood parameters in hemodialysis patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: (a) age of 18 to 65 years; (b) history of hemodialysis for at least 3 months; (C) serum ferritin level between 200 to 400 ng/dl. Exclusion criteria: (a) not participating in the program for 2 consecutive sessions or three sequential sessions; (b) need to kidney transplantation; (c) having cardiovascular diseases or musculoskeletal disorders; (d) history of cerebral ischemia during the last 3 months; (e) contraindication for physical activity.

Age

From **18 years** old to **65 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **70**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Randomization: The patients will be randomly assigned to intervention and control groups through drawing lot.

Blinding: Not possible.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic Committee of Hamadan University of Medical Sciences

Street address

Vice-chancellor of Research the Technology,
Hamadan University of Medical Sciences, Shahid Fahmideh Ave

City

Hamadan

Postal code

6517838695

Approval date

2015-05-23, 1394/03/02

Ethics committee reference number

IR.UMSHA.REC.1394.48

Health conditions studied

1

Description of health condition studied

Hemodialysis

ICD-10 code

Z49.1

ICD-10 code description

Extracorporeal dialysis

Primary outcomes

1

Description

assessing the RBC

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

2

Description

assessing the WBC

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

3

Description

assessing the hemoglobin

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

4

Description

assessing the hematocrit

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

5

Description

assessing the platelet

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

6

Description

assessing the BUN

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

7

Description

assessing the creatinine

Timepoint

before and one month after beginning of intervention

Method of measurement

through laboratory techniques

Secondary outcomes

1

Description

Nothing

Timepoint

Nothing

Method of measurement

Nothing

Intervention groups

1

Description

Routine hemodialysis plus physical activity 3 sessions a week for 4 weeks

Category

Other

2

Description

Routine hemodialysis alone without physical activity

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Besat Hospital

Full name of responsible person

Ali Nezamloo

Street address

Besat Hospital, Shahed Square

City

Hamadan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice-chancellor for Research the Technology,
Hamadan University of Medical Sciences

Full name of responsible person

Dr Saeid Bashirian

Street address

Hamadan University of Medical Sciences, Shahid
Fahmideh Ave

City

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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 the Technology, Hamadan
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

Besat Hospital

Full name of responsible person

Ali Nezamloo

Position

Intensive Care Student

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

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Person responsible for updating data

Contact
Name of organization / entity
Department of Epidemiology
Full name of responsible person
Dr Jalal Poorolajal
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Other areas of specialty/work
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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
Data Dictionary
empty