Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Assessment of the Effect of Aeirobic Movement Exercise During Hemodialysis on Dialysis Efficacy in Undergoing Dialysis Patients with Bicarbonate Solution

Protocol summary

Summary

aim: the aim of this study was to assess the Effect of Aeirobic Movement Exercise During Hemodialysis on Dialysis Efficacy in Patients Undergoing Dialysis with Bicarbonate Solution. Methods:The study population was included 50 adult patients(25 cases and 25 controls) who regularly and non-emergency underwent hemodialysis two or three times a week in the dialysis center of Imam Khomeini Hospital in Sari for 2 months in 2010.Inclusion criteria were acceptance of eligible patients to participate in the study, full consciousness, having a history of at least three months of regular hemodialysis and use of bicarbonate solution. Exclusion criteria included:blood coagulation during hemodialysis on dialysis filter, perform irregular movements, the frequent loss or change in blood pressure during repeated general movements and exercises,and angina. intervention in case group was aerobic movement exercise by range of motion joints continuously for 15 minutes. control group didn't perform exercise movements. serum urea were measured and recorded initially,at the end of 4th week and 8th week of study. the adequacy of dialysis was analyzed and recorded using (Kt/v) formula. obtained data were compared between the two groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138904084268N1**
Registration date: **2011-05-23, 1390/03/02**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2011-05-23, 1390/03/02

Registrant information

Name

Rahele Mohseni

Name of organization / entity

Mazandaran University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Mazandaran University of Medical Sciences

Expected recruitment start date

2010-05-02, 1389/02/12

Expected recruitment end date

2010-07-03, 1389/04/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Assessment of the Effect of Aeirobic Movement Exercise During Hemodialysis on Dialysis Efficacy in Undergoing Dialysis Patients with Bicarbonate Solution

Public title

Way to improve the Dialysis Efficacy

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: full consciousness, having a history of at least three months of regular hemodialysis and use of

bicarbonate solution. Exclusion criteria:blood coagulation during hemodialysis on dialysis filter, perform irregular movements, the frequent loss or change in blood pressure during repeated general movements and exercises,and angina.

Age

From **18 years** old to **76 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Deputy of Mazandaran University of Medical Sciences

Street address

Research & Technology of Mazandaran university of medical sciences,Moallem Squre

City

Sari

Postal code

Approval date

2010-07-07, 1389/04/16

Ethics committee reference number

89/23

Health conditions studied

1

Description of health condition studied

hemodialysis patient

ICD-10 code

N18.0

ICD-10 code description

End-stage renal disease

Primary outcomes

1

Description

Dialysis Efficacy

Timepoint

Before the intervention, four weeks after the intervention, eight weeks after intervention

Method of measurement

Jnydal formul

Secondary outcomes

1

Description

Urea Reduction Ratio

Timepoint

Before the intervention, four weeks after the intervention, eight weeks after intervention

Method of measurement

Urea Reduction Ratio formul

Intervention groups

1

Description

Intervention group: Aerobic exercise movements to rotate the wrist following: 20 rpm clockwise rotating the wrist: the 20th round in the opposite clockwise up to the wrist up and down: up to 20 moves on the forearm of the arm Elbow joint: ankle twisting motion 20: 20 hours rotating counterclockwise around the ankles: 20th round in the opposite direction clock ankles up and down: 20 Motion

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Hemodialysis Department, Imam Khomeini Hospital in Sari

Full name of responsible person

rahele mohseni

Street address

School of Nursing Midwifery Nasibeh-Vesal street-Amir mazandarani street

City

Sari

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Deputy of Mazandaran University of Medical Sciences
Full name of responsible person
dr.ahmad ali enayati
Street address
Square Moallem
City
Sari
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Deputy of Mazandaran 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

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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