Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

The effect of priming with heparin and normal saline on adequacy of hemodialysis in hemodialysis patients

Protocol summary

Study aim
Determination the effect of priming with heparin - normal saline on ādequacy of hemodialysis in hemodialysis Patients

Design
A randomized clinical trial with a control group, with two parallel groups

Settings and conduct
The present study is a randomized clinical trial on two groups of 72 patients undergoing hemodialysis in Hamedan. In the intervention group, hemodialysis device priming will be done for patients with normal saline plus heparin for one month. In the control group, priming will be performed using normal saline. The adequacy of hemodialysis patients will be examined using the adequacy calculation formula for hemodialysis.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Perform hemodialysis three times a week, End stage renal failure, Age 18 to 85 years old exclusion criteria: Unwillingness to continue to participate in the study, Failure to perform hemodialysis regularly.

Intervention groups
In the intervention group, hemodialysis device priming will be done for patients with normal saline plus heparin(1000units) for one month.

Main outcome variables
Hemodialysis adequacy

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20160110025929N25**
Registration date: **2019-07-28, 1398/05/06**
Registration timing: **prospective**
Last update: **2019-07-28, 1398/05/06**
Update count: **0**

Registration date
2019-07-28, 1398/05/06

Registrant information

Name
Mehdi Molavi Vardanjani

Name of organization / entity

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Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-08-21, 1398/05/30

Expected recruitment end date
2020-08-20, 1399/05/30

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The effect of priming with heparin and normal saline on adequacy of hemodialysis in hemodialysis patients

Public title
Effect of priming with heparin - normal saline on adequacy of hemodialysis

Purpose
Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Age 18 to 85 years old End stage renal failure Perform hemodialysis three times a week

Exclusion criteria:

Unwillingness to continue to participate in the study Failure to perform hemodialysis regularly

Age

From **18 years** old to **85 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **72**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple random allocation will be done using a random number table. Patients will be randomly divided into two groups intervention(A) and control (B).

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

Ethics committee of Hamadan University of Medical Sciences

Street address

Shahid Fahmideh St., Hamadan University of Medical Sciences, Hamadan

City

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Province

Hamadan

Postal code

38698-65178

Approval date

2019-07-21, 1398/04/30

Ethics committee reference number

IR.UMSHA.REC.1398.329

Health conditions studied

1

Description of health condition studied

Chronic kidney disease

ICD-10 code

N18.5

ICD-10 code description

Chronic kidney disease, stage 5

Primary outcomes

1

Description

Hemodialysis adquacy

Timepoint

Before and immediately after each hemodialysis

Method of measurement

Blood urea and creatinine measurements by blood test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: In the intervention group, the hemodialysis device priming will be done using normal saline plus 1000 units of heparin for one month.

Category

N/A

2

Description

Control group: In the control group, the priming of the hemodialysis device will be performed using normal saline.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Besat hospital

Full name of responsible person

Reza Borzou

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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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Full name of responsible person
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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Deputy of research and technology
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
Hamedan University of Medical Sciences
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Associate professor
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Person responsible for updating data

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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