Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of priming with recirculation of Normal Saline method on adequacy of Hemodialysis among patients under hemodialysis

Protocol summary

Summary

Inadequacy of hemodialysis is one of the factors which increase the mortality rate of hemodialysis patients. The aim of this study Is to evaluate the effect of priming with recirculation of Normal Saline method on adequacy of Hemodialysis among patients under hemodialysis in Army Hospital No. 522 in Tabriz. Design of this study is a randomized controlled clinical trial. A total of 44 end stage renal disease patients aged with 18-85 years old; that All patients had been received a period of more than three months of dialysis therapy, that dialized via of AVF as a vascular access for three times a week, each time for three hours; being literate were selected and randomly will divided in two groups: In intervention group the method of priming with recirculation of Normal Saline will be used. In this method after when 1 L of saline has been primed through the dialyzer and bloodlines, connect the patient ends of the arterial and venous bloodlines together and started the blood pump. The dialysate pump was also started at the same time at a flow rate of 500 mL/min and both dialysate and Normal Saline begin to circulate for half an hour before every hemodialysis session for one month. In control group, the dialysis set priming whit routine way by flushing 1 L of saline from the blood compartment without any recirculation for one month. The adequacy of hemodialysis before and after treatment for one month is measured and will be compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014112920138N1**
Registration date: **2015-01-18, 1393/10/28**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2015-01-18, 1393/10/28

Registrant information

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Name of organization / entity
AJA University of Medical Sciences, AJA Faculty of Nursing
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Recruitment status

Recruitment complete

Funding source

AJA University of Medical Sciences

Expected recruitment start date

2014-11-06, 1393/08/15

Expected recruitment end date

2014-12-06, 1393/09/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of priming with recirculation of Normal Saline method on adequacy of Hemodialysis among patients under hemodialysis

Public title

The effect of priming with recirculation of Normal Saline method on dialysis adequacy

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: The patient is in the end stage renal disease and regularly refer for dialysis 3 times a week; treated with dialysis for more than three months; being 18-85 years old; Negative history of Particular problem that is Requiring prolonged hospitalization and Prevent from regular Presence in dialysis ward; treated by dialysis three times per week for at least 4 hours in every session; the patient dialized by means of fistula as a vascular access. Exclusion criteria: traveling and lack of regular presence in ward for dialysis; Disease or any particular problems (such as failure of fistula) that may Causing of hospitalization or surgery patients during the study; Use any way or any device(such as changing the filter type) that somehow have effected on the adequacy of dialysis.

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: **44**

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

AJA University of Medical Sciences

Street address

Next to Emam Reza hospital, Eatemadzade avenue, Fatemi avenue

City

Tehran

Postal code

Approval date

2014-09-27, 1393/07/05

Ethics committee reference number

9320

Health conditions studied

1

Description of health condition studied

dialysis

ICD-10 code

Y84.1

ICD-10 code description

Kidney dialysis

Primary outcomes

1

Description

Hemodialysis adequacy

Timepoint

before intervention and after that

Method of measurement

adequacy of dialysis formula

Secondary outcomes

empty

Intervention groups

1

Description

In intervention group: the method of priming with recirculation of Normal Saline Will be applied used. In this method after with 1 L of saline has been primed through the dialyzer and bloodlines, connect the patient ends of the arterial and venous bloodlines together and started the blood pump with 500/mit. The dialysate pump will also started at the same time at a flow rate of 500 mL/min and both dialysate and Normal Saline begin to circulate for half an hour before every hemodialysis session for one month.

Category

Treatment - Other

2

Description

In control group: the dialysis set priming whit routine way by flushing 1 L of saline from the blood compartment without any dialysate passing through the dialyzer for one month.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

The 522 Army Hospital Of Tabriz

Full name of responsible person

Street address
City
Tabriz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
AJA Faculty of Nursing
Full name of responsible person
Dr Armin Zareian
Street address
next to the Family hospital, kaj street, Shariati street.
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
AJA Faculty of Nursing
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
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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